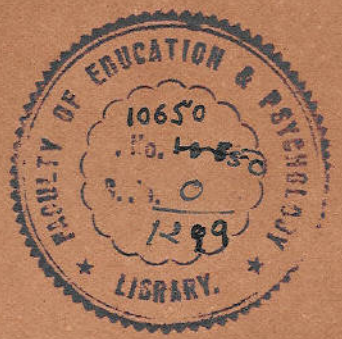
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FROM THALES TO THE PRESENT TIME.

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BY

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Translated from the Fourth German Edition,

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THIRD PERIOD

OF THE

PHILOSOPHY OF THE CHRISTIAN ERA.

MODERN PHILOSOPHY.

§ 107. By Modern Philosophy is meant philosophy since the discontinuance of its condition of subserviency to theology (which characterized it in its scholastic form), in its gradual development into an independent science, having for its subject the essence and laws of nature and mind,—as enriched and deepened by prior growths, and exerting an influence upon contemporaneous investigations in positive science and upon social life, and being in turn reacted upon by these. Its chief divisions are: 1. The Transitional Period, beginning with the renewal of Platonism; 2. The epoch of Empiricism, Dogmatism, and Skepticism, from Bacon and Descartes to the Encyclopedists and Hume; and 3. The epoch of the Kantian Criticism and of the systems issuing from it, from Kant till the present time.

Besides the authors of the comprehensive historical works cited above, Vol. I., § 4, p. 8 seq. (Brucker, Tiedemann, Buhle in his *Lehrbuch der Gesch. der Philos.*, Tennemann, Ernst Reinhold, Ritter, Hegel, and others), the following, in particular, treat of modern philosophy:—Johann Gottlieb Buhle, *Geschichte der neueren Philosophie seit der Epoche der Wiederherstellung der Wissenschaften*, Göttingen, 1800–1805, forms the sixth division of the "*Geschichte der Künste und Wissenschaften seit der Wiederherstellung derselben bis an's Ende des achtzehnten Jahrhunderts*," other divisions of which were prepared by J. G. Eichhorn, A. H. L. Heeren, A. G. Kästner, F. Murhard, J. G. Hoyer, J. F. Gmelin, and J. D. Fiorillo. Immanuel Hermann Fichte, *Beiträge zur Charakteristik der neuern Philosophie*, Sulzbach, 1829, 2d ed., *ib.*, 1841. Joh. Ed. Erdmann, *Versuch einer wissenschaftlichen Darstellung der Geschichte der neuern Philosophie*, Riga und Leipsic, 1834–53; cf. the second Vol. of Erdmann's *Grundriss der Geschichte der Philosophie*, Berlin, 1866; 2d ed., 1870. *Histoire de la philosophie allemande depuis Leibnitz jusqu'à nos jours, par le baron* Barchou de Penhoën, Paris, 1836. Hermann Ulrici, *Geschichte und Kritik der Principien der neuern Philosophie*, Leipsic, 1845. J. N. P. Oischinger, *Speculative Entwickelung der Hauptsysteme der neuern Philosophie, von Descartes bis Hegel*, Schaffhausen, 1853–54. Kuno Fischer, *Geschichte der neuern Philosophie*, Mannheim, 1854 seq.; 2d ed., Vol. I., Parts 1 and 2, *ib.*, 1865; Vol. II., *ib.*, 1867. Carl Schaarschmidt,

Der Entwickelungsgang der neuern Speculation, als Einleitung in die Philosophie der Geschichte kritisch dargestellt, Bonn, 1857. Julius Schaller (Leipsic, 1841–44) treats especially of the History of Natural Philosophy since the time of Bacon. Julius Baumann treats of the doctrines of space, time, and mathematics in modern philosophy (*Ueber die Lehren von Raum, Zeit und Mathematik in der neueren Philosophie*, Berlin, 1868–69). Ludwig Noack has written on the Christian Mystics since the age of the Reformation (Königsberg 1853), and on the English, French, and German Free-Thinkers (Bern, 1853–55); Will. Edw. Hartpole Lecky, *History of the Rise and Influence of the Spirit of Rationalism in Europe*, 1st and 2d eds., London, 1865; 3d ed., 1866 [New York, 1865]; (German translation, by Heinr. Jolowicz, under the title: *Geschichte der Erklärung*, etc., 2 vols., Leipsic, 1867–68). Cf. H. Dean, *The History of Civilization*, New York and London, 1869. The history of Ethics in modern times is specially discussed by J. Matter, *Histoire des doctrines morales et politiques des trois derniers siècles*, Paris, 1836; H. F. W. Hinrichs, *Gesch. der Rechts- und Staatsprincipien seit der Reformation*, Leipsic, 1848–52; I. Herm. Fichte, *Die philos. Lehren von Recht, Staat und Sitte seit der Mitte des 18. Jahrhunderts*, Leipsic, 1850; F. Vorländer, *Geschichte der philos. Moral, Rechts- und Staatslehre der Engländer und Franzosen mit Anschluss des Machiavell*, Marburg, 1855. [Sir J. Mackintosh, Gen. View of progress of Eth. Phil., etc., Lond., 3d ed., 1862; Phil., 1832; W. Whewell, Lectures on Hist. of Mor. Phil. in Eng., Lond., 1852; R. Blakey, Hist. of Mor. Science, 2d ed., Edin., 1856.] Simon S. Laurie, *Notes Expository and Critical on Certain British Theories of Morals*, Edinburgh, 1863. Robert von Mohl (in his *Gesch. und Litt. der Staatswissenschaften, in Monographien dargestellt*, Vols. I.–III., Erlangen, 1855–58), and J. C. Bluntschli (*Gesch. des allgem. Staatsrechts und der Politik seit dem 16. Jahrh. bis zur Gegenwart*, Munich 1864; Vol. I. Hist. of Sciences, etc.) treat also of the philosophical theories of politics. The History of Æsthetics in Germany, by H. Lotze, occupies the seventh volume of the *Gesch. der Wiss. in Deutschland*, Munich, 1868.

Important contributions to the history of philosophy are contained in various works on the history of literature, such as Gervinus' *Geschichte der poëtischen Nationallitteratur der Deutschen*, Hillebrand's *Geschichte der deutschen Nationallitteratur seit Lessing*, Julian Schmidt's *Geschichte des geistigen Lebens in Deutschland von Leibnitz bis auf Lessing's Tod*, and *Gesch. der deutschen Litt. seit Lessing's Tode*, and *Gesch. der franz. Litteratur seit der Revolution im Jahr* 1789, Aug. Koberstein's *Grundriss der Gesch. der deutschen Nationallitteratur*, Herm. Hettner's *Litteraturgesch. des 18. Jahrhunderts*, also in works on the history of pedagogics,—such as those by Karl von Raumer, Karl Schmidt, and others,—the State and law (see above), and on theology and the natural sciences. Abundant literary references may be found in Gumposch, *Die philos. Litt. der Deutschen von 1400 bis 1850*, Regensburg 1851, as also in the other works cited above, Vol. I., § 4. Works relating to particular epochs, especially to the most modern philosophy, since the time of Kant, will be mentioned below.

Unity, servitude, freedom—these are the three stages through which the philosophy of the Christian era has passed, in its relation to ecclesiastical theology. The stage of freedom corresponds with the general character of the modern era, which seeks to restore, in place of mediæval antagonisms, harmonious unity (cf. above, Vol. I., §§ 5 and 72). Freedom of thought in respect of form and substance has been secured *gradually* by modern philosophy. The first movement in this direction consisted in a mere exchange of authorities, or in the reproduction of other ancient systems than that of Aristotle, without such modification and such adaptation to new and changed conditions, as the scholastics had effected in the system of Aristotle. Then followed the era of independent investigation in the realm of nature, and finally, also, in the realm of mind. There was a transitional period marked by the endeavor of philosophy to become independent. The second epoch, the epoch of Empiricism and Dogmatism, was characterized by methodical investigations and comprehensive systems, which were based on the confident belief that the knowledge of natural and spiritual reality was independently attainable by means of experience or thought alone. Skepticism prepared the way for the third stadium in the history of modern philosophy, which was founded by Criticism. According to the critical philosophy, the investigation of the cognitive faculty of man is the necessary basis for all strictly scientific philosophizing, and the result arrived at by it is, that thought is incompetent to the cognition of the real world in its true nature, and that it must be restricted to the world of phenomena, beyond which the only guide is man's moral consciousness. This result has been denied by the following systems, although these systems are all lineal descendants from

the Kantian philosophy, which is still of immediate (not merely of historical) significance for the philosophy of the present day.*

* There are some who have sought to discover a complete parallelism between the progress of development of ancient and that of modern philosophy, asserting, in general, that essentially the same philosophical problems have always recurred, and that the result of all attempts at their solution has been, without the intervention of some special modifying cause, essentially the same. But both these pre-suppositions have only a limited truth. Through the progressing development of philosophy itself, and through the diverse forms assumed by the forces which stand with it in relations of reciprocal action and reaction, especially by religion, the State, the arts, and the positive sciences, new philosophical problems have arisen, which may indeed be designated in the same general way with those which first arose, but which give to the later systems, as a whole, a very materially different stamp. (The analogy between the studies pursued before and contemporaneously with the philosophy of any given period, and this philosophy itself, is a subject specially discussed by A. Helfferich, in *Die Analogien in der Philosophie, ein Gedenkblatt auf Fichte's Grab*, Berlin, 1862.) But still more than the character of isolated systems, is the order of their appearance dependent on the existence or non-existence of earlier philosophies and on external influences, so that sometimes, indeed, in the succession of single systems, but only in slight measure in the whole progress of development, an essential agreement is manifest. While ancient philosophy began with cosmology and then confined its attention chiefly to logic and ethics, together with physics, at last substantially concentrating all its interest on theology, modern philosophy found all these branches already existing and was developed under their influence, as also under that of the existing forms of State and Church, which, on the other hand, were to an important extent determined by the influence of ancient philosophy; the progress of modern philosophy has consisted in the gradual emancipation and deepening of the philosophizing spirit. The modern mind (as Kuno Fischer—who assumes for the period of transition a parallelism in reverse order with the line of development of ancient philosophy—justly remarks, *Gesch. der neueren Philos.*, 2d ed., Manheim, 1865, I., 1, p. 82) seeks "to find a way out of the theological conception of the world, with which it is filled, to the problems of cosmology." Modern philosophy has from the beginning owed its existence in far greater measure to an interest in theology (though not for the most part to an interest in the specifically ecclesiastical form of theology) than did ancient philosophy previous to the time of Neo-Platonism. Still it may fairly be said that independent philosophical inquiry, in modern as in ancient times, was first directed chiefly to external nature; then, in addition, to man as such, in his relation to nature and to God; and finally (especially in Spinoza, Schelling, and Hegel) to the Absolute. Conrad Hermann (in his "*Der pragmatische Zusammenhang in der Geschichte der Philosophie*, Dresden, 1863"—which work, however, also contains many arbitrary comparisons) indicates the following parallel, which is worthy of notice: Socrates, Plato, Aristotle; Kant, Hegel, the Empiricism of to-day. The analogy (often previously noticed also by others) between Socrates and Kant is found in the fact that for both of these thinkers, man—not the individual man in his individual peculiarity, but man viewed with reference to the universal and abiding elements of his nature—is the theoretical and practical measure of things; the analogy exists unmistakably, although the common formula under which the doctrines of the two philosophers can be brought applies to each in very different senses. The comparison of Hegel to Plato is indeed, with reference to the substance of their respective doctrines, only partially justified; only in so far, namely, as both concede to thought an objective truth; while on the other hand it is not pertinent, in so far as Plato gives to the idea a transcendent existence, while Hegel represents it as immanent in the phenomenal world (whence the favorite conception by Hegelians of Hegel as the modern Aristotle appears as the more appropriate one). But in respect of the methods involved, the comparison is indeed just, since the Hegelian dialectic, like the Platonic doctrine, and still more than the latter, places the knowledge of the ideas in dualistic contrast with empirical knowledge, while post-Hegelian scientific Empiricism strives to overcome this dualism, and by exact investigation founded on experience to bring the rational reign of law in nature and mind within the sphere of ascertained knowledge. In respect of the whole historical development of philosophy, the parallels drawn by Kuno v. Reichlin Meldegg (in his opuscule: *Der Parallelismus der alten und neuen Philosophie, akadem. Habilitationsschrift*, Leipsic and Heidelberg, 1865) contain much that is plausible and interesting. This author distinguishes "three necessary stand-points, derivable from the nature of the human cognitive faculty, and recognizable as the same in antiquity and in modern times: the objective and the subjective stand-points and the stand-point of identity," which, whenever a people (or a class of peoples) philosophizes, must succeed each other in the "revolution of thought" as the "stadia of commencement, development, and compromise." The author regards the first as represented in Greek philosophy by the natural philosophers from Thales to Democritus; the second by the Sophists, Socrates and the disciples of Socrates, by Plato, Aristotle, the Stoics, Epicureans, and Skeptics; and the third by the Neo-Platonists; but in modern philosophy the objective tendency is, he says, accompanied by the subjective in the first period, which extends to the last philosophers before Hume and Kant; the second period, to which Hume, Kant, and Fichte belong, is characterized by subjectivism; and the third,

FIRST DIVISION OF MODERN PHILOSOPHY.

THE EPOCH OF TRANSITION TO INDEPENDENT INVESTIGATION.

§ 108. The first division of Modern Philosophy is characterized by the transition from mediæval dependence on the authority of the Church and of Aristotle, first, to the independent choice of authorities, and then to the beginnings of original and uncontrolled

founded by Schelling and Hegel, by the stand-point of identity. K. v. Reichlin-Meldegg compares, separately, the philosophers of the "period of preparation" down to Bacon, to the oldest Greek philosophers, and, in particular, Bruno to the Eleatics,—though confessing that here the similarity is only imperfect; he compares Descartes to Socrates, the first Cartesians to the imperfect disciples of Socrates, Spinoza, again, to the Eleatics, Leibnitz to Plato, Locke to the Stoics, the period of "enlightenment" to the Sophistic period, Hume to Carneades, and Kant to Aristotle; but adds that Kant was, "as it were, the Aristotle of modern times grown introspective, the great experimenter in the field of mind," and that the Aristotelian doctrine was an "objective Idealism," while Kant's was "subjective ideal Criticism;" Schelling, finally, attempted to solve the opposition of ideal and real in the same way in which the Neo-Platonists attempted the same, namely, from the stand-point of identity, and Hegel completed Schelling's philosophy of the Absolute; yet for Hegel the finite was not an unexplained declension from the infinite; on the contrary, Hegel's "pure being" contained in itself the universal immanent principle of motion and development. Hegel was a "Heraclitus of the mind." Herbart is to Spinoza what the Atomists were to the Eleatics. Since, adds R.-M., the stand-point of identity, which transcends the limit of human knowledge, is scientifically impossible, the highest attainable point for philosophy is Subjectivism; the Kantian philosophy was the termination and completion of the German philosophy of mind. This attempt to discover a general parallelism is suggestive and instructive, but in numerous respects not convincing. By the "objective stand-point" is either understood simply the prevalent direction of philosophical inquiry to the external world, and by the "subjective stand-point" the prevalent direction of inquiry to the mind; or, by the former, the doctrine that the Subject has its source in the Object, and by the latter, the doctrine that the Object has its source in the Subject—which doctrines, again, admit of various modifications and may be intensified to the extreme assertions: there is nothing but mind,—nothing exists besides matter; from both doctrines should be distinguished, besides the "stand-point of identity," at least that of Dualism. Kant and Fichte, and in a certain way Hume also, are representatives of (complete or nearly complete) Subjectivism in the sense of a definite doctrine; but a doctrine homogeneous with this cannot be ascribed to the middle period of Greek philosophy, but only a prevalent direction of philosophical interest towards the Subject, which tendency was least exclusive in the case of the very philosophers who were most distinguished in this period, Plato and Aristotle, who also took up again and independently developed physics, which the Sophists and Socrates had left in the background; to "Subjectivism," as illustrated in Kant's doctrine, Aristotle offers rather a contrast than an analogy. Kant has more in common with Socrates than with Aristotle, and from this fact as a starting-point it is possible to follow out certain analogies backwards and forwards. But if the parallelism is to end with the assertion of an analogy between Schelling and Hegel and the Neo-Platonists,—an assertion which certainly has much to recommend it, chiefly on account of the similar attitude of the parties compared with reference to positive religion,—it would seem that Kant should be paralleled in his practical philosophy with the Stoics, and in his doctrine of cognition with the Skeptics; Locke with Aristotle, Leibnitz with Plato, Spinoza with the Megarians (on account of his blending of Ethics with the metaphysical principle of unity), Descartes with Socrates, the natural philosophers from Telesius to Bacon with the ancient natural philosophers from Thales to Democritus; and also the Florentine Platonists, as forerunners of independent philosophical inquiry, say, with the priests of the Orphic mysteries, if, for the rest, the institution of such parallelisms, however skilfully executed, did not necessarily involve much that is only half true, whereby they inevitably degenerate into the trivial. The comparisons to which the institution of such parallelisms gives occasion, may, if points of difference are pointed out with the same care as points of similarity, have a high scientific value, but mark rather the transition from the historical appreciation of systems to critical reflection concerning the same, than the stage of historical appreciation itself.

investigation, yet without a complete emancipation of the new philosophical efforts from the domination of the mediæval spirit, and with no rigidly methodical development of independent systems.

Of the intellectual movement in the transition-period, Jules Joly treats, in *Histoire du mouvement intellectuel au 15me siècle et pendant la première partie du 17me*, Paris, 1860. Cf. the works cited §§ 109, 110, and 111.

§ 109. Among the events which introduced the transition from the Middle Ages to modern times, the earliest was the revival of classical studies. This revival was negatively occasioned by the one-sided character and the gradual self-dissolution of scholasticism, and positively by the remains of ancient art and literature in Italy—which were more and more appreciated as material prosperity increased—and by the closer contact of the Western world, especially of Italy, with Greece, particularly after the flight of large numbers of learned Greeks to Italy, at the time when the Turks were threatening Europe and had taken Constantinople. The invention of the art of printing facilitated the spread of literary culture. The first important result in the field of philosophy of the renewed connection of Western Europe with Greece, was the introduction of the Platonic and Neo-Platonic philosophies into the West, their enthusiastic reception, and the attempt by means of these to supplant the scholastic-Aristotelian philosophy. Gemistus Pletho, the passionate disputant of the Aristotelian doctrine, Bessarion, the more moderate Platonist, and Marsilius Ficinus, the meritorious translator of Plato and Plotinus, were the most important of the renewers of Platonism. On the other hand, by returning to the original text, and by preferring Greek to Arabian commentators, classically educated Aristotelians were enabled to present the doctrine of Aristotle in greater purity than the Scholastics had done. In particular, in Northern Italy, where since the fourteenth century Averroës had been customarily followed in the interpretation of Aristotle, the authority of this commentator was disputed by a portion of the Aristotelians in favor of the Greek interpreters, particularly of Alexander Aphrodisiensis; but it continued to assert itself, especially at Padua, though in more limited measure, until near the middle of the seventeenth century. The Averroistic doctrine, that only the one universal reason common to the entire human race is immortal, agreed with the Alexandristic, which recognized only the world-ordering divine mind as the active immortal reason, in the denial of individual immortality; still, most of the representatives of Averroism, especially in the later years of the

school, were enabled so to accommodate this doctrine to the requirements of orthodoxy as to avoid a conflict with the Church. The Alexandrists, among whom Pomponatius is the most noteworthy, inclined to Deism and Naturalism, but distinguished from philosophical truth the theological truth taught by the Church, to which they professed submission; the Church, however, condemned the doctrine of the two-fold nature of truth. Beside the Platonic and Aristotelian doctrines, other philosophies of antiquity were also renewed. Telesius and other relatively independent investigators of nature were considerably influenced by the doctrines of the earlier of the Greek natural philosophers. Stoicism was renewed and developed by Lipsius and others, Epicureanism by Gassendi, and Skepticism by Montaigne, Charron, Sanchez, Le Vayer, and others.

An authentic history of the renewal of classical literature in Italy is contained in Girolamo Tiraboschi's *Storia della Letteratura Italiana*, 13 Vols., Modena, 1772–82; edition in 16 Vols., Milan, 1822–26; see especially Tom. VI., 1, and VII., 2 (Vols. VII. and XI. of the Milan edition); the same subject is also treated by Arnold Herm. Ludw. Heeren, *Geschichte des Studiums der class. Litteratur seit dem Wiederaufleben der Wissenschaften*, 2 Vols., Gött., 1797–1802 (cf. his Hist. of Class. Lit. in the Middle Ages); Ernst Aug. Erhard, *Gesch. des Wiederaufblühens wiss. Bildung, vornehmlich in Deutschland*, Magdeburg, 1828–32; K. Hagen, *Deutschlands litt. und relig. Verhältnisse im Reformationszeitalter*, Erlangen, 1841–44; new edition, edited by his son, Herman Hagen, 3 Vols., Frankfort-on-the-Main, 1868; Ernest Renan, *Averroès et l'Averroïsme*, Par., 1852, p. 255 seq.; Guillaume Favre, *Mélanges d'hist. litt.*, Geneva, 1856; Georg Voigt, *Die Wiederbelebung des classischen Alterthums*, Berlin, 1859; Jacob Burckhardt, *Die Cultur der Renaissance in Italien* (particularly the third section on *Die Wiedererweckung des Alterthums*), Basel, 1860, 2d ed., 1869; Joh. Friedr. Schröder, *Das Wiederaufblühen der class. Studien in Deutschland im* 15. *und zu Anfang des* 16. *Jahrhunderts*, Halle, 1864.

On the philosophy of Dante compare A. F. Ozanam, *Dante et la philos. cathol. au XIIIme siècle*, Paris, 1845.

On Petrarch, cf. J. Bonifas, *De Petrarcha philosopho*, Paris, 1863; Maggiolo, *De la philos. morale de Pétrarque*, Nancy, 1864.

On the Florentine Academy, cf. R. Sieveking, Gött., 1812. G. Gemistus Pletho's περὶ ὧν Ἀριστοτέλης πρὸς Πλάτωνα διαφέρεται was printed at Paris in 1540, and at Basel in 1576. Cf., on Pletho, Leo Allatius, *De Georgiis diatriba* in *Script. Byzant. Par. XIV.*, 1651, pp. 383–392, reprinted in Fabric., *Bibl. Gr. X.*, Hamburg, 1721 (*De Georgiis*, pp. 549–817), pp. 739–758, *ed. nov., curante* Gottlieb Christ. Harless, XII., Hamb., 1809 (*De Georgiis*, pp. 1–186), pp. 85–102; Boivin, *Querelle des philosophes du XV. siècle*, in *Mémoires de littérature de l'Acad. des Inscriptions*, Vol. II., pp. 715 seq.; W. Gass., *Gennadius und Pletho, Aristotelismus und Platonismus in der griechischen Kirche, nebst einer Abh. über die Bestreitung des Islâm im Mittelalter; 2. Abth.: Gennadii et Plethonis scripta quædam edita et inedita*, Breslau, 1844; also, Πλήθωνος νόμων συγγραφῆς τὰ σωζόμενα, *Plethon, traité des lois, ou recueil des fragments, en partie inédits, de cet ouvrage, par C. Alexandre, traduction par* A. Pellissier, Paris, 1858, and A. Ellissen, *Analekten der mittel- und neugriech. Litt.*, IV. 2: *Plethons Denkschriften über den Peloponnes*, Leips., 1860.

The translation of Plato by Marsilius Ficinus was printed at Florence, 1483–84, and the transl. of Plotinus, by the same, *ibid.*, 1492. His *Theologia Platonica*, Flor., 1482; complete Works, excepting the translations of Plato and Plotinus, Basel, 1576.

John Pico of Mirandola, *Works*, Bologna, 1496. The same, together with the works of his nephew, John Francis Pico, Basel, 1572–73 and 1601. Cf. Georg Dreydorff, *Das System des Joh. Pico von Mirandula und Concordia*, Marburg, 1858.

Johann Reuchlin, *Capnion sive de verbo mirifico* (a conversation between a heathen, a Jew, and a Christian), Basel, 1494, Tübingen, 1514; *De arte cabbalistica*, Hagenau, 1517, 1530. On him cf. Meyerhoff, Berlin, 1830.

The best edition of the works of Ulrich von Hutten is that prepared by Böcking, Leips., 1858–59, together with *Index bibliographicus Huttenianus*, Leips., 1858; on him cf. D. F. Strauss, Leips., 1858–60.

Heinrich Cornelius Agrippa von Nettesheim, *De Occulta Philosophia*, Cologne, 1510, 1531–33; *De Incertitudine et Vanitate Scientiarum* (Col., 1527, Par., 1529, Antw., 1530); his works were printed at Lyons in 1550 and 1600, and in German, Stuttgard, 1856. A biography of Agrippa is contained in the first part of F. J. v. Bianco's *Die alte Universität Köln*, Cologne, 1855.

Laurentius Valla, *Works*, Basel, 1540–43; single works were printed earlier; the controversial work entitled *De dialectica contra Aristoteleos*, Venice, 1499.

Rudolph Agricola, *Opera, cura Alardi*, Cologne, 1539; *De dialectica inventione*, published in 1480, and at Louvain, 1515, Strasburg, 1521, Cologne, 1527, Paris, 1528.

P. Gassendi, *Exercitationum paradoxicarum adv. Aristoteleos*, Vol. I., Grenoble, 1624, Vol. II., Hague, 1659; *De vita, moribus et doctrina Epicuri*, Leyden, 1647, Hague, 1656; *Animadversiones in Diog. L. de vita et philos. Epic.*, Leyden, 1649; *Syntagma philos. Epicuri*, Hague, 1655, 1659; *Petri Gassendi opera*, Lyons, 1658, and Florence, 1727. Cf. on him Ph. Damiron, in his *Hist. de la philos. au XVII. siècle*, Paris, 1840.

Michel de Montaigne, *Essais*, Bourdeaux, 1580, very frequently reprinted; recently, *avec les notes de tous les commentateurs, choisies et complétées par M. J. V. Le Clerc, et une nouvelle étude sur M. par Prévost-Paradol*, Paris, 1865; on Montaigne see, among others, Eugène Bimbenêt, *Les Essais de M. dans leurs rapports avec la législation moderne*, Orléans, 1864.—Pierre Charron, *De la Sagesse*, Bourdeaux, 1601, ed. by Renouard, Dijon, 1801; *Trois vérités contre tous les athées, idolâtres, juifs, Mahométans, hérétiques et schismatiques*, Paris, 1594; this latter and earlier work is more dogmatic than the former.—Francis Sanchez, *Tractatus de multum et prima universali scientia, quod nihil scitur*, Lyons, 1581, etc.; *Tractatus philosophici*, Rotterdam, 1649; on him cf. Ludwig Gerkrath, Vienna, 1860.—François de la Mothe le Vayer, *Cinq dialogues faits à l'imitation des anciens par Horatius Tubero*, Mons, 1673, etc.; *Œuvres* (not including the above Dialogues), Paris, 1653, etc.

In the period at which we have now arrived, increased industrial and commercial activity resulted in an increase of material prosperity; cities arose, and a class of free citizens came into existence; the State was consolidated, and at the courts, among the nobility and among the citizens, notwithstanding the continued existence of wars and feuds, leisure was found for the adornment of life by the arts of peace. At the same time and by a parallel movement there grew up a secular form of culture, as distinguished from the previous prevailingly religious type. Poets extolled force and beauty; the manly courage which approves itself in severe contests, the delicacy of feeling which is conspicuous in the raptures and pains of love, the fervor of devotion, the fire of hate, the nobility of loyalty, the ignominy of treason—every natural and moral feeling which is developed in the society of man with man, found expression in secular poetry in terms fitted deeply to move the heart. This humane culture opened up also the sense for ancient poetry and for ancient conceptions of the world and of human affairs. The love for ancient art and literature—a sentiment which had never been entirely extinguished in Italy—was the first to be reawakened there; with the struggles of political parties was connected an intelligent interest in early Roman history; the social life of the rising burgher-class and of the noble families who attained to wealth and power provided the leisure and cultivated the taste necessary for a resuscitation of the extant remains of ancient culture. The attention paid to Roman literature called forth the desire to know more of the literature of the Greeks, a knowledge which in Greece itself was still largely preserved. In the hope of satisfying this desire, Greece had been visited long before the approach of the Turks and the capture of Constantinople (1453) had led to the emigration of Greek scholars to Italy; the Greek Muses (says Heeren, *Gesch. des Studiums der class. Litt. seit dem Wiederaufleben der Wissenschaften*, Vol. I., p. 283) would have been brought to Italy, if they had not fled thither for refuge.

Dante Alighieri (1265–1321), for whose daring poem on the Last Judgment the scholastic combination of Christian theology with the Aristotelian philosophy furnished the speculative basis, cultivated his sense of poetic form especially by the study of Virgil. Francesco Petrarca (July 20, 1304, to July 18, 1374), the singer of love, entertained the most enthusiastic passion for ancient literature; he was intimately ac-

quainted with the Roman literature, and by his own labors in the collection of MSS., and by the zeal with which he inspired others to search for and study the works of the ancients, he did invaluable service for the preservation and propagation of these works. Petrarch was no friend of Aristotle; Plato suited his taste; but he had but little knowledge of either. He hated the infidel doctrines of Averroism. He preferred a popular and parenetic philosophy, like that of Cicero and Seneca, to the Aristotelic school-philosophy. In the Greek language he was instructed by Bernard Barlaam (died 1348), whom love for the language and works of Homer, Plato, and Euclid had led from Calabria, in whose convents the Greek language had never become unknown, to Greece, whence he came as ambassador of the Emperor Andronicus the younger to Pope Benedict XII., at Avignon. The instruction which he here gave to Petrarch, in the year 1339, was indeed, owing to the brief time during which it was continued, insufficient; but it became, through the stimulus which Petrarch received therefrom and communicated to others, the source of extremely important results. A friend of Petrarch was Giovanni Boccacio (John of Certaldo, 1313–1375), who learned Greek more thoroughly from Barlaam's pupil, Leontius Pilatus, in the years 1360–63. In Boccacio the interest in antiquity was already accompanied with a belief in the non-absolute character of Christianity; the Christian religion, according to him, was only relatively true, and was thus on a par with other religions. Boccacio's *Decamerone* contains (I. *Nov.* 3) the story (subsequently revived and modified by Lessing, in his *Nathan*) of the three rings, the conception underlying which is found in the philosophy of Averroës. On Boccacio's recommendation, Leontius was appointed by the Florentines as a public instructor in the Greek language, with a fixed salary, at their university. He did not indeed accomplish all that was expected of him, but the example was given and was speedily imitated at other universities. Johannes Malpighi of Ravenna, a pupil of Petrarch, gave instruction in Latin literature, with great success, at Padua, and from 1397 on, at Florence. The collecting of manuscripts became more and more a matter of pride with the rich and powerful, and the love for studies connected with antiquity was kindled in ever widening circles by the reading of classical works. Manuel Chrysoloras of Constantinople (died A.D. 1415, at Constance), a pupil of Pletho, was the first native Greek who appeared as a public teacher of the Greek language and literature in Italy (at Venice, afterwards at Florence). From him his nephew, Joh. Chrysoloras (who taught at Constantinople and also in Italy), Leonardus Aretinus, Franciscus Barbarus, Guarinus of Verona, and others, and from Johannes Chrysoloras, Francis Philelphus (1398–1481), the father of Marius Philelphus (born A.D. 1426, at Constantinople, died in 1480, at Mantua—on him cf. the work of Guillaume Favre, cited above), and others received their education. At Milan and other places, Constantinus Lascaris, from Constantinople, taught the Greek language. His son, Johannes Lascaris (1446–1535), as ambassador from Lorenzo de' Medici (born 1448, died 1492) to Bajesid II., was instrumental in effecting the purchase of numerous manuscripts for the Medicean Library. His pupil, Marcus Musurus, labored zealously in preparing the Aldine edition of Greek classics.

At the court of Cosmo de' Medici (born 1389, died 1464) lived for a time (from 1438 on) Georgius Gemistus Pletho (born about A.D. 1355, died in the Peloponnesus in 1452), who had come from Constantinople and was the most influential renovator of the study of the Platonic and Neo-Platonic philosophy in the Occident. He changed his name Γεμιστός into the synonymous and more Attic Πλήθων, suggestive of Πλάτων. Although he wrote commentaries on the *Isagoge* of Porphyry and the *Categories* and *Analytics* of Aristotle, he rejected with the greatest vehemence the Aristotelian doctrine that the

first substances are individuals, and that the universal is only of secondary nature. He regarded the objections of Aristotle to the Platonic doctrine of ideas as not pertinent, and argued against the Aristotelian theology, psychology, and ethics. In his treatise, written about the year 1440, at Florence, on the difference between the Platonic and Aristotelian philosophies, and in his "Compendium of the Dogmas of Zoroaster and Plato" —perhaps an integrant part of his comprehensive work entitled *νόμων συγγραφή*, which, in consequence of its condemnation by the Patriarch Gennadius, has come down to us only in fragments—he exalts, in opposition to the tendency of Aristotelianism towards naturalism, the theosophic tendency of Platonism, without, however, distinguishing Plato's doctrine from the Neo-Platonic, or taking into special consideration the deviation from the corresponding Christian dogmas of certain Platonic philosophemes (in particular, the Platonic doctrines of the pre-existence of the human soul before its terrestrial life, of the world-soul and the souls of the stars, numerous ethical and political dicta, and also the Neo-Platonic theory of the eternity of the world). Through Pletho's lectures Cosmo de' Medici became filled with a warm love for Platonism, and was led to found the Platonic Academy at Florence, of which Marsilius Ficinus was the first Director.

A pupil of Gemistus Pletho was Bessarion of Trebizond, who was born in 1395, became Archbishop of Nicæa in 1436, and subsequently Patriarch of Constantinople,—which position was lost to him through his leaning in favor of the union of the Greek and Latin Churches,—was made a Cardinal by Pope Eugene IV., and died 1472. Like his master, yet with greater moderation and impartiality, Bessarion defended the doctrines of Platonism. His best-known work, "*Adversus Calumniatorem Platonis*" (Rome [1469], Venice, 1503 and 1516), was a rejoinder to the *Comparatio Aristotelis et Platonis* of George of Trebizond, the Aristotelian, who, moved by Pletho's attack on Aristotelianism, had fought passionately against Platonism. In a letter dated May 19, 1462, and addressed to Michael Apostolius, a still young and passionate defender of Platonism, who had reviled Aristotle and Theodore Gaza, the Aristotelian and opponent of Pletho, Bessarion affirms his love and reverence for both Plato and Aristotle (*ἐμὲ δὲ φιλοῦντα μὲν ἴσθι Πλάτωνα, φιλοῦντα δ' Ἀριστοτέλη καὶ ὡς σοφωτάτω σεβόμενον ἑκατέρω*), and he even blames Pletho, whom he held in great esteem, for the violence of his opposition to Aristotle; he exhorts Michael to look up with respect to those great philosophers of antiquity, and to conduct all disputes, after the example of Aristotle, with moderation, making use rather of arguments than of invectives. Bessarion's translations of Xenophon's *Memorabilia* and of the *Metaphysics* of Aristotle, and of the extant fragment of the *Metaphysics* of Theophrastus, are often, through their strict literalness, un-Latin (though not to the same degree with earlier translations used by the Scholastics); but they led the way to better ones by later translators.

Marsilius Ficinus was born at Florence, in 1433, and appointed by Cosmo de Medici teacher of philosophy at the Academy of Florence, where he died in 1499. He won lasting credit especially by his translations of the works of Plato and Plotinus, and also of some works by Porphyry and other Neo-Platonists—translations which, so far as it was then possible, were both faithful and elegant.

John Pico of Mirandola (1463–94) blended with his Neo-Platonism cabalistic doctrines. He propounded nine hundred theses (printed, Rome, 1486, Cologne, 1619), concerning which he thought to dispute at Rome; but the disputation was forbidden. Of like character was the philosophy of his nephew, John Francis Pico of Mirandola (died 1533).

Through Ficinus and Pico, Johann Reuchlin (1455–1522) was won over to Neo-Platonism and the Cabala. With the study of the classical languages Reuchlin joined that of the Hebrew; the latter he saved from the fanaticism of the Dominicans of Cologne, who intended to commit to the flames all except the canonical Jewish literature. His contest against the "Dunkelmänner," or Obscurants, in which also Ulrich von Hutten (1488–1523) took part, prepared the way for the Reformation.

Heinrich Cornelius Agrippa, of Nettesheim (1486–1535), who followed Reuchlin and Raymundus Lullus, combined mysticism and magic with scepticism.

Among the Aristotelians of the fifteenth and sixteenth centuries, Georgius Scholarius, with the surname (which he appears to have assumed on becoming a monk) *Gennadius* (born at Constantinople—for a time, from 1453 on, Patriarch under Sultan Mohammed—died about 1464), came forward as an opponent of Pletho, whom he accused of ethnicism, especially on account of his work, "νόμων συγγραφή" (which he sentenced to be destroyed). Gennadius had previously already combated the Platonism of Pletho, and defended Aristotelianism. Not only Pletho's deviations from Christian dogma, but also his attacks on the degenerate system of monasticism and his utterances (in imitation of Plato's polemic against the Orphic priests of atonement) against offerings and prayers intended to influence God to do things not right, were calculated to excite the indignation of Gennadius. Gennadius wrote commentaries on the *Isagoge* of Porphyry, the *Categ.* and the *De Interpret.*, and translated into Greek various scholastic writings, especially those of Thomas Aquinas, and, among other things, the "*De Sex Principiis*" of Gilbertus Porretanus (see above, Vol. I., § 94, p. 399), which was accepted as serving to complete the *De Categ.* of Aristotle. In several MSS., also, the translation of (the greater part of) the logical Compendium of Petrus Hispanus is attributed to him; but according to other authorities this Compendium had already been translated into Greek, about A.D. 1350, by Maximus Planudes. On the other hand, the same Greek text in another (Munich) MS. is designated, and was hence published by Ehinger (Wittenberg, 1597) as a work of the Greek philosopher Psellus (living in the 11th century), from which, if the statement of this MS. is true, the Compendium of Petrus Hispanus must have been translated (see above, Vol. I., § 95, p. 404).

George of Trebizond (1396–1486), against whom the above-mentioned work of Bessarion was directed, taught rhetoric and philosophy at Venice and Rome. In his *Comparatio Platonis et Aristotelis* (printed at Venice, 1523) he censures the doctrine of Pletho as unchristian; he charges him with having intended to found a new religion, neither Christian nor Mohammedan, but Neo-Platonic and heathen, and treats him as a new and more dangerous Mohammed; in Aristotle only, and not in Plato, does George of Trebizond find definite and tenable philosophical theorems, given in systematic form and suitable for teaching. George of Trebizond translated several of the works of Aristotle, and wrote commentaries on them.

Theodorus Gaza (born at Thessalonica, died 1478) went about 1430 to Italy, and taught there the Greek language and literature. He was a learned Aristotelian and an opponent of Pletho, though on friendly terms with Bessarion. He translated, in particular, works on physical science by Aristotle and Theophrastus.

Laurentius Valla (born at Rome in 1415, where he died in 1465), the translator of the Iliad, and of Herodotus and Thucydides, made vigorous and successful war on the uncritical method employed in history and the vapid subtleties prevalent in philosophy. From Cicero and Quintilian he borrowed logical and rhetorical principles.

Rudolph Agricola (1442–85) studied scholastic philosophy at Louvain, but enjoyed afterwards in Italy the instruction of classically educated Greeks, especially that of Theodore Gaza. Like Valla, he fought against scholastic insipidity, drew from the writings of Aristotle a purer Aristotelianism, and philosophized in purer Latin. His logico-rhetorical work, entitled *De Dialectica Inventione*, was founded on Aristotle and Cicero. Melancthon said of it: *nec vero ulla extant recentia scripta de locis et usu dialectices meliora et locupletiora Rudolphi libris;* Ramus also expressed a favorable judgment on this work.

Johannes Argyropulus (who came from Constantinople, and died at Rome in 1486) lived at the court of Cosmo de'Medici, whose son Peter and grandson Lorenzo he instructed in Greek. He was afterwards, till the year 1479, teacher of the Greek language at the Academy of Florence, in which office he was succeeded by Demetrius Chalcocondylas (1424–1511), a pupil of Theodore Gaza. Of the works of Aristotle, Johannes Argyropulus translated the *Organon*, *Auscultationes Phys.*, *De Cœlo*, *De Anima*, and *Ethica Nichom.*, into Latin, or he at least revised earlier translations of them.

Angelus Politianus (Angelo Poliziano, 1454–1494), a pupil of Christopher Landinus in Roman, and of Argyropulus in Greek literature, gave lectures at Florence on works of Aristotle, and translated the *Enchiridion* of Epictetus and Plato's *Charmides*, but was rather a philologist and poet than a philosopher. Cf. Jacob Mähly, *Angelus Politianus, ein Culturbild aus der Renaissance*, Leipsic, 1864.

Hermolaus Barbarus (Ermolao Barbaro) of Venice (1454–1493), a nephew of Francis Barbarus and pupil of Guarinus, translated works of Aristotle and Commentaries by Themistius, and prepared a *Compendium Scientiæ Naturalis ex Aristotele* (printed in 1547). He belongs to the Hellenistic Anti-Scholastics; Albert and Thomas were, like Averroës, "barbarian philosophers," in his opinion.

An Aristotelianism derived directly from the original sources was taught by James Faber (Jacques Lefèvre, from Etaples in Picardy, *Faber Stapulensis*), amid much applause, at the University of Paris, about the year 1500. He wrote Latin paraphrases in elucidation of some of Aristotle's works. Reuchlin says that "he restored Aristotle to the Gauls." He was, at the same time, a zealous mathematician and an admirer of Nicolaus Cusanus, whose works he published and whose doctrines were of still greater influence on the mind of Faber's pupil Bovillus (see below, § 111).

Desiderius Erasmus (1467–1536) deserves mention in a history of philosophy, both on account of his opposition to scholastic barbarism, and, positively, on account of the edition of Aristotle which he assisted in editing, and more particularly on account of his having laid the foundations of Patrology by his editions of Jerome, Hilarius, Ambrosius, and Augustine.

Joh. Ludovicus Vives (born at Valencia in 1492, died at Bruges in 1540), a younger contemporary and friend of Erasmus, exerted considerable influence as an opponent of the Scholastics, especially by his work entitled *De Causis Corruptarum Artium* (Antw., 1531, and *Opera*, Bas., 1555; Valenc., 1782). The genuine disciples of Aristotle, says Vives, interrogate Nature herself, as the ancients also did; only through direct investigation by the way of experiment can Nature be known.

Marius Nizolius, of Bersello (1498–1576), combated scholasticism in his *Thesaurus Ciceronianus*, and particularly in his *Antibarbarus sive de veris principiis et vera ratione philosophandi contra pseudo-philosophos* (Parm., 1553, ed. G. W. Leibnitz, Frankfort, 1670 and 1674). Nizolius maintained the nominalistic doctrines that only individual things are real substances, that species and genera are only subjective conceptions by means of which several objects are considered together, and that all knowledge must proceed from sensation, which alone has immediate certainty.

Not only scholasticism, but also the dialectical doctrine of Aristotle himself, was opposed by Petrus Ramus (Pierre de la Ramée, born in 1515, murdered during the night of St. Bartholomew, 1572, at the instigation of his scholastic opponent, Charpentier) in his *Animadversiones in Dialecticam Aristotelis* (Paris, 1534, etc.), which was followed by his *Institutiones Dial.* (Par., 1543), a positive attempt to provide an improved logic, but of little importance. He sought, in imitation of Cicero (and Quintilian), to blend logic with rhetoric. Cf. on him Ch. Waddington, *Ramus, sa vie, ses écrits et ses opinions*, Paris, 1855; Charles Desmaze, *P. R., professeur au Collège de France, sa vie, ses écrits, sa mort*, Paris, 1864; M. Cantor, *P. R., ein wiss. Märtyrer des 16. Jahrh.*, in Gelzer's *Prot. Monatsbl.*, Vol. XXX., No. 2, August, 1867.

The Humanists hated scholastic Aristotelianism, and, most of all, the Averroism prevalent in Northern Italy (especially at Padua and Venice), regarding them as barbarous. Many of them also, particularly the Platonists, opposed Averroism as the enemy of religious faith. But soon other opponents of Averroism went back to the text of Aristotle and to the works of Greek commentators, especially to those of Alexander of Aphrodisias, in order to replace the mystical and pantheistic interpretation of Aristotle by a deistic and naturalistic one. These men agreed, however, with the Averroists—who affirmed that there was but one immortal intellect, and that this was present in all the members of the human race—in denying miracles and personal immortality. For this reason, both they and the Averroists were together opposed by such defenders of the Christian faith and the doctrines of Plato as Marsilius Ficinus, J. A. Marta, Casp. Contarini, and, later, Anton Sirmond, and they were officially condemned by a Lateran Council (at the session of Dec. 19, 1512), which required of all Professors that they should leave no errors, which might be found in the works to be interpreted, without refutation. The same council condemned the distinction between two orders of truth, and pronounced everything false which was in conflict with revelation. There were also at Padua pure Aristotelians who were not Alexandrists, but adopted the theory of the immortality of souls. Among these was Nicolaus Leonicus Thomæus (born 1456), who taught at Padua from 1497 on. But Averroism was at that time the predominant philosophy in Northern Italy, as was Naturalism, which was based on Alexander's interpretation of Aristotle, among the Peripatetic opponents of Averroism. Marsilius Ficinus says in the preface to his translation of Plotinus, though not without some rhetorical exaggeration: "Nearly the whole world is occupied by the Peripatetics, who are divided into two sects, the Alexandrists and the Averroists. The former believe the human intellect to be mortal; the latter contend that it is one in all men. Both parties alike overturn from its foundation all religion, especially because they seem to deny that human affairs are controlled by a divine providence, and also to have equally fallen away from the teachings of Aristotle, their master."

Averroism reigned in the school at Padua from the first half of the 14th till near the middle of the 17th century, though in different acceptations at different times. While the heterodox elements of the Averroistic doctrine were made prominent by a few, they were toned down by others. At the beginning of the 16th century Averroism appeared, in comparison with Alexandrism, as the doctrine least at variance with the teaching of the Church. At the time of the reaction in the Church it was reduced and confined to the careful employment of the Commentaries of Averroës in explaining the Aristotelian writings, the doctrines which were in disaccord with the faith of the Church being rendered less offensive by a liberal interpretation. Many interpreted the unity of the intellect as meaning merely the identity of the highest logical principles (the principle of contradiction, etc.). The Averroists of this later period pretended to be, at

the same time, good Catholics. Averroism had become a matter of erudition and bore no longer an offensive character. Numerous impressions of the Commentaries of Averroës give evidence of the continuing interest in them. The first edition of the works of Averroës, which appeared at Padua in 1472, reproduced the old Latin translations made in the 13th century; new translations were subsequently made on the basis of Hebrew translations, and were employed for the edition of 1552–53, which, however, contains some of the earlier translations.

The Averroistic doctrine of the unity of the immortal reason in the whole human race was professed in the last decennia of the 15th century, by Nicoletto Vernias, who occupied the professorial chair at Padua from 1471 to 1499; but in his old age he was converted to the belief in the immortality of each individual soul. In 1495 Petrus Pomponatius (died in 1525) commenced teaching philosophy in the same city. In his lectures and works (*De immortalitate animæ*, Bologna, 1516, Ven., 1525, Basel, 1634, *ed.* Chr. G. Bardili, Tüb., 1791; *De fato, libero arbitrio, prædestinatione, providentia Dei libri quinque*, Basel, 1525, 1556, 1567; *De naturalium effectuum admirandorum causis s. de incantationibus liber*, written in 1520, Basel, 1556, 1567; on him cf. Francesco Fiorentino, *Pietro Pomponazzi*, Florence, 1868; G. Spicker, in an Inaugural Dissert., Munich, 1868; Ludwig Muggenthaler, *Inaug. Dissert.*, Munich, 1868; and B. Podestà, Bologna, 1868) Pomponatius rejected the Averroistic doctrine, and recognized the Thomistic arguments against the same as sufficient to refute it, yet believed the true meaning of Aristotle to be, not, as Thomas had affirmed, that there was a plurality of immortal intellects, but that the human soul, including the rational faculty, was mortal. For this interpretation he referred to Alexander of Aphrodisias, who identifies the active immortal intellect with the divine mind, and declares the individual reason of each man to be mortal. By the human understanding the universal is known only in the particular, thought is impossible without the representative image (φάντασμα), which is rooted in sensation and is never without relation to time and space, hence is constantly dependent on bodily organs and disappears with them. Virtue is independent of the belief in immortality; it is most genuine when practised without reference to reward or punishment. Of the liberty to profess this doctrine Pomponatius sought to assure himself by distinguishing two orders of truth, the philosophical and the theological (whereby he, like other thinkers of the Middle Ages and of the transition-period, anticipated, in a manner sufficient for the immediate exigency, though philosophically undeveloped, the modern distinction between symbolical representation and speculative thinking). Consistency in philosophic thought leads, according to him, to the doctrine of the mortality of human souls; but immortality only is admissible in the circle of theological articles of faith. In like manner Pomponatius disposed of the doctrines of miracles and of the freedom of the will.

At Padua and, from 1509 on, at Bologna, Pomponatius had an opponent in Alexander Achillini (died 1518), who held fast, in general, to the Averroistic phraseology and doctrine, though pretending not to affirm the unity of intellect in a sense opposed to the teaching of the Church.

A pupil of Vernias, Augustinus Niphus (Agostino Nifo, 1473–1546; he wrote Commentaries on Aristotle, in 14 folio volumes, and *Opuscula moralia et politica*, Par., 1654), who at first avowed the Averroistic doctrine of the unity of the intellect, but afterwards had the prudence to modify his Averroism and bring it into unison with the teachings of the Church, and who in 1495–97 published the works of Averroës, accompanied by refutatory remarks relative to various passages, wrote, at the instance of Pope Leo X., a work in refutation of the *De Immortalitate Animæ* of Pomponatius. Since, however,

great interest was felt in these transactions at the Roman court, Pomponatius was enabled under the protection of Cardinal Bembo (and indirectly of the Pope himself) to prepare his *Defensorium contra Niphum*. Interest in philosophical subjects led the Roman court at that time beyond the limits of its ecclesiastical and political interest; the "unbelief" prevalent at the court of the Pope, coupled with a general laxity of morals, gave offence to Luther and others, and became one of the causes of that division of the Church, which the reaction that soon followed on the part of subsequent Popes, in the direction of the most rigid adherence to the faith of the Church, was unable to remedy.

Simon Porta of Naples (died 1555; to be distinguished from the eminent physicist, Giambattista Porta of Naples, who lived 1540–1615, and is celebrated especially for his work entitled *Magia Naturalis*, Naples, 1589, etc.), a pupil of Pomponatius, wrote, like the latter, in agreement with the Alexandrists on the question of immortality (*De rerum naturalibus principiis, de anima et mente humana*, Flor., 1551). Gasparo Contarini (1483–1542), likewise a pupil of Pomponatius, opposed his doctrine. Zimara, a Neapolitan scholar (died 1532), contributed to the elucidation of the text of Aristotle and Averroës; his Notes were included in the later editions of Averroës. Jacobus Zabarella (born at Padua, 1532, where he taught philosophy from 1564 till his death in 1589) followed for the most part Averroës in the interpretation of Aristotle. In psychology he adopted rather the views of Alexander, but thought that the individual intellect, though perishable by nature, became, when perfected by divine illumination, a partaker of immortality. Zabarella was opposed by Francis Piccolomini (1520–1604), a disciple of Zimara. Andreas Caesalpinus (1509–1603, physician-in-ordinary to Pope Clement VIII.) took the easy step from Averroism to Pantheism; his God was the "universal soul" ("*anima universalis*," *Quæstiones Perip.*, Venice, 1571; *Dæmonum Investigatio Peripat.*, *ib.*, 1583). Zabarella's successor in the professorial chair at Padua, Cesare Cremonini (born 1552, died 1631), was the last important representative of Averroistic Aristotelianism tempered with Alexandristic psychology.

An attempt to revive the Stoic philosophy was made by Justus Lipsius (1547–1606) in his *Manuductio ad Stoicam philosophiam*, *Physiologia Stoicorum*, and other works. Casp. Schoppe (Scioppius), Thomas Gataker, and Daniel Heinsius also contributed to the exegetical literature of Stoicism.

Gassendi (1592–1655) sought to defend Epicureanism against unjustified attacks, and to show that it contained the best doctrine of physics, and yet at the same time to combine with it Christian theology. Gassendi's Atomism is less a doctrine of dead Nature than is that of Epicurus. Gassendi ascribed to the atoms force, and even sensation: just as a boy is moved by the image of an apple to turn aside from his way and approach the apple-tree, so the stone thrown into the air is moved, by the influence of the earth reaching to it, to pass out of the direct line and to approach the earth. From its relation to the investigation of nature in modern times, Gassendi's renewal of Epicureanism is of far greater historical importance than the renewal of any other ancient system; not unjustly does F. A. Lange (*Gesch. des Materialismus und Kritik seiner Bedeutung in der Gegenwart*, Iserlohn, 1866, p. 118 seq.) consider Gassendi as the one who may properly be styled the renewer in modern times of systematic materialism.

Ancient skepticism was revived, and, in part, in a peculiar manner further developed by Michel de Montaigne. The scepticism of this clever man of the world was more or less directed to doctrines of Christianity, but was generally brought in the end, by a—whether sincere or merely prudent—recognition of the necessity of a revelation, on account of the weakness of human reason, into harmony with theology. Other supporters of a like tendency were Pierre Charron (1541–1603), who defined it as man's province merely to search for the truth, which dwells in the bosom of God; Francis Sanchez (Sanctius, born 1562, died at Toulouse, 1632), teacher of medicine and philosophy; François de la Mothe le Vayer (1586–1672), who applied the arguments of the ancient skeptics especially to theology, limiting the latter to the sphere of simple faith; and the pupils of the latter, Sam. Sorbière (1615–1670), who translated the *Hypotyposes Pyrrhoneæ* of Sext. Empiricus, and Simon Foucher, Canonicus of Dijon (1644–96; cf. on him, F. Rabbe, *L'abbé Simon Foucher, chanoine de la chapelle de Dijon*, Dijon, 1867), who wrote a *Histoire des Académiciens* (Par., 1690), a *Dissert. de philos. Academica* (Par., 1692), and a skeptical critique of Malebranche's *Recherche de la Vérité*; and also by Joseph Glanvill (died 1680), Hieronymus Hirnhaym (died at Prague, 1679), and Pierre Daniel Huet (1633–1721), and his younger contemporary, Pierre Bayle (1647–1706), to whom attention will be directed in the following, second, principal division.

§ 110. Side by side with this return of learned culture from scholasticism to the early Roman and Greek literature, stands, as its analogue, the return of the religious consciousness from the doctrines of the Catholic Church to the letter of the Bible. To the participants in this movement, the original, after the authority of tradition had been denied by them, appeared as the pure, genuine, and true, and whatever additions had been made to it were regarded not as constituting a real advance upon the original, but rather as the result of emasculation and degeneration. Yet they did not, in point of fact, rest satisfied with the mere renewal of earlier forms, but went forward to a new reformatory development, for which the negation of the (till then) prevalent form of culture cleared the way. Acknowledging the authority of the Holy Scriptures, and of the dogmas of the Church in its earliest days, Protestantism rejected the mediæval hierarchy and the scholastic tendency to rationalize Christian dogmas. The individual conscience found itself in conflict with the way of salvation marked out by the Church. By this way it was unable to attain to inward peace and reconciliation with God. It could not advance beyond that stadium in the religious life in which the sentiment of the law and of sin, and of their antagonism, is predominant. This religious sentiment was rendered invincible by that form of Christian morals which culminated in the monastic vows, whereby the moral significance of labor, marriage, independence, and of all the natural bases of the spiritual life was underestimated; and by indulgences and other means of propitiation this same sentiment of antagonism was rather concealed than removed. Further, the religious conviction of the individual was found to be rather prejudiced than confirmed by the reasoning of the schools. It was felt that not the work prescribed by the Church, but personal faith alone possessed beatifying virtue; human reason was

believed to conflict with that faith which the Holy Ghost produces. In the first heat of the conflict the Reformers regarded the head of the Catholic Church as Antichrist, and Aristotle, the chief of the Catholic School-philosophy, as a "godless bulwark of the Papists." The logical consequence of these conceptions would have been the annihilation of all philosophy in favor of immediate, unquestioning faith; but in proportion as Protestantism gained fixed consistence, the necessity of a determinate order of instruction became equally apparent with that of a new ecclesiastical order. Melanchthon, Luther's associate, perceived the indispensableness of Aristotle as the master of scientific form, and Luther allowed the use of the text of Aristotelian writings, when not burdened with scholastic commentaries. There arose thus at the Protestant universities a *new* Aristotelianism, which was distinguished from Scholasticism by its simplicity and freedom from empty subtilties, but which, owing to the necessity of modifying the naturalistic elements in the Aristotelian philosophy, and especially in the Aristotelian psychology, so as to make them harmonize with religious faith, soon became, in its measure, itself scholastic. The erection of a new, independent philosophy on the basis of the generalized Protestant principle, was reserved for a later time.

On the philosophical notions peculiar to the time of the Reformation compare, especially, Mor. Carrière Stuttg. and Tüb., 1847. Six complete editions of Luther's Works have been published, as follows:—Wittenberg, 1539–58; Jena, 1555–58, together with two supplementary volumes publ. at Eisleben, 1564–65; Altenburg, 1661–64, together with supplementary vol. publ. at Halle in 1702; Leipsic, 1729–40; Halle, 1740–53 (Walch's edition, the most complete one up to that time), and lastly, Erlangen and Frankfort-on-the-Main, commenced in 1826 (67 vols. of writings in German and 30 in Latin had appeared up to 1867 and ten more were wanting, after the publication of which this edition will be not only the most correct, but also the most complete in existence). Of the numerous works on Luther, we may here mention, on account of their philosophical bearings, those of Chr. H. Weisse (*Mart. Luth.*, Leips, 1845, and *Die Christologie Luther's*, Leips., 1852). Melanchthon's Works, published by his son-in-law, Peucer, at Wittenberg, 1562–64, have been republished by Bretschneider and Bindseil in their *Corpus Reformatorum*, Halle and Brunswick, 1834 seq., in 28 volumes, to which *Annales Vitæ et Indices* (Brunswick, 1860) form a supplement; Vol. XIII. contains the philosophical works, with the exception of the ethical ones, which may be found in Vol. XVI; the *Scripta Varii Argumenti* in Vol. XX. also include some philosophical writings. On Melanchthon, compare, among others, Joachim Camerarius. *De vita Mel. narratio*, 1566 (republ. by Georg. Theod. Strobel, 1777, and by Augusti, 1819); Friedr. Galle, *Charakteristik M.'s als Theologen*, Halle, 1840; Karl Matthes, *Ph. M., sein Leben und Wirken*, Altenburg, 1841; Ledderhose, *M. nach. s. äussern u. innern Leben*, Heidelb., 1847; Planck. *Mel. præceptor Germaniæ*, Nördlingen, 1860; Constant. Schlottman, *De Philippo Melanchthone litteriæ reformatore comm.*, Bonn, 1860; Bernhardt, *Phil. Melanchthon als Mathematiker und* Wittenberg, 1865; Pansch, *Mel. als Schulmann*, Eutin, 1866. W. L. G. v. Eberstein has written nature of the logic and metaphysics of the so-called pure Peripateticians (Halle 1800), and J. H. ab. R in particular of Aristotelianism among the Protestants, in *De varia Aristotelis in scholis Protestantium fortuna schediasma*, annexed to his edition (Wittenb. 1720) of Launoy's *De varia Arist. fortuna in Acad. Parisiensi* (see above, Vol I, § 89, p. 356).

Martin Luther (Nov. 10, 1483–Feb. 18, 1546) held that philosophy, as well as religion, needed to be reformed. He says (*Epist.* Vol. 1., 64, *ed.* de Wette; cf. F. X. Schmid, *Nic Taurellus*, p. 4): "I believe it impossible that the church should be reformed, without completely eradicating canons, decretals, scholastic theology, philosophy, and logic, as they are now received and taught, and instituting others in their place."

The new philosophy should not control theology. "The Sorbonne," he says, "has propounded the extremely reprehensible doctrine, that whatever is demonstrated as true in philosophy, must also be accepted as true in theology." Luther held that it was by no means sufficient to return from the Aristotle of the Scholastics to the real Aristotle; the former was a weapon of the Papists, the latter was naturalistic in tendency and denied the immortality of the soul, while his metaphysical subtleties were of no service to the science of nature. He not only expected no help from Aristotle, but held him in such horror, that he affirmed: "if Aristotle had not been of flesh, I should not hesitate to affirm him to have been truly a devil." Melanchthon also (Feb. 16, 1497—April 19, 1560; his curious idea of making his Grecized name more euphonious by the ungrammatical omission of the letters ch, should be excused in the man, but not perpetuated in practice) shared for a time the feeling of Luther. But the Reformation could not long continue without philosophy; experience taught its necessity. By merely appealing to the earliest documents of Christianity an authority had indeed been found which was sufficient to justify to the religious consciousness the negation of the later or non-original ecclesiastical development. But since the actual restoration of decayed forms could only have consisted with a state of torpidity (like that illustrated in the religious life of the Caraites), from which the Reformation in its first stadium was separated by a world-wide interval, it followed that no Church could be built up on the principle of a simple return to the embryonic state; whenever the attempt was seriously made to carry out this principle, the result was fanatical sects—Iconoclasts and Anabaptists. A developed theological system and a regulated order of instruction were vitally necessary even for a Protestant Church, but were unattainable without the aid of philosophical conceptions and norms. Yet a new philosophy could not be created; Luther's genius was religious, and not philosophical, and Melanchthon's nature was rather reproductive and regulative than productive. Consequently, since philosophy was indispensable, it was necessary to choose from the philosophies of antiquity. Said Melanchthon: "We must choose some kind of philosophy, which shall be as little infected as possible with sophistry, and which retains a correct method." He found the Epicureans too atheistic, the Stoics too fatalistic in their theology and too extravagant in their ethics, Plato and the Neo-Platonists either too indefinite or too heretical; Aristotle alone, as the teacher of form, met the wants of the young, as he had those of the old Church. Accordingly Melanchthon confessed: "We cannot do without the monuments of Aristotle"; "I plainly perceive that if Aristotle, who is the unique and only author of method, shall be neglected, a great confusion in doctrine will follow"; "Yet he, who chiefly follows Aristotle as his leader and seeks out some one simple and, so far as possible, unsophistical doctrine, can also sometimes adopt something from other authors." Luther, too, revised his previous opinions on the subject. In 1526, already, he admitted that the books of Aristotle on logic, rhetoric, and poetics, might, if read without scholastic additions, be useful "as a discipline for young people in correct speaking and preaching." In the "*Unterricht der Visitatoren im Kurfürstenthum zu Sachsen* (1528; written by Melanchthon, and expressing the common opinions of Luther and Melanchthon) and in the "*Unterricht der Visitatoren an die Pfarrherrn in Herzog Heinrich's zu Sachsen Fürstenthum* (1539, Vol. X. in Walch's edition; cf. Trendelenburg *Erläut. zu den Elementen der Aristot. Logik*, Preface) it is required that grammatical instruction should be followed by instruction in logic and rhetoric. But the logical instruction could only be founded

on Aristotle. Melanchthon prepared a number of manuals for the use of instructors. Classically educated, publicly praised in his early youth by Erasmus of Rotterdam, related to Reuchlin, and on terms of friendship with him, in whose contest with the Dominicans he also took part, it was impossible that he should find pleasure in the insipid subtilties of the Scholastics. Following the example of Valla and Rud. Agricola, he went back to the text of Aristotle, but modified and toned down the ideas of Aristotle; his style is more elegant than profound. In the year 1520 appeared his first manual entitled *Compendiaria dialectices ratio;* in 1522 the first edition of the *Loci theologici* (in which, with reference to the dogmas peculiar to the Reformation, especially the doctrines of original sin and predestination, more rigid ground is taken than in the later editions, while in reference to the doctrine of the Trinity and other dogmas derived from the Catholic Church, less rigid ground is taken); in 1527 the *Dialectica Ph. M. ab auctore adaucta et recognita;* in 1529 the third edition, entitled *De Dialecta Libri quatuor* (also in 1533, etc.); and finally, in 1547, the *Erotemata Dialec.* (also in 1550, 1552, etc.). Melanchthon defines (*Dial., l. I. init.*) dialectic as "the art and way of teaching"; he is concerned not so much with the method of investigation (since, in his view, the most important truths are given either in the form of innate principles or by revelation), as with that of instruction. He treats (conformably to the serial order of the works in Aristotle's Organon: *Isagoge* of Porphyry, *Categ. De Interpret., Analyt., Top.*) first of the five *Prædicabilia: species, genus, differentia, proprium, accidens;* then of the ten categories or *Prædicamenta: substantia, quantitas, qualitas, relatio, actio, passio, quando, ubi, situs, habitus;* next (in the second Book) of the various species of propositions, and then of syllogisms (Book III.), and ends with the *Topica* (Book IV.). He lays principal stress on the doctrines of definition, division, and argumentation. He extols dialectic as a noble gift of God (*Erotemata Dialectices, epist. dedicatoria* p. VII.: "*Ut numerorum notitia et donum Dei ingens est et valde necessaria hom. vitæ, ita veram docendi et ratiocinandi viam sciamus Dei donum esse et in exponenda doctrina cœlesti et in inquisitione veritatis et in aliis rebus necessariam*"). *Mel. de Rhetor. Libri Tres.* were published at Wittenberg in 1519, and the *Philosophiæ moralis Epitome, ibid.*, 1537; Melanchthon had previously published commentaries on single books of Aristotle's Ethics. Subsequently (Witt., 1550) appeared the work: *Ethicæ doctrinæ elementa et enarratio libri quinti Ethicorum (Aristotelis).* In ethics as in logic, Melanchthon follows chiefly Aristotle, but gives to the subject, in the last-named work, rather a theological turn, the will of God being there presented as the highest law of morals. In his *Commentarius de Anima* (Wittenberg, 1540, 1542, 1548, 1558, 1560, etc.), as also in his *Initia doctrinæ physicæ, dictata in Academia Witebergensi* (ibid. 1549), Melanchthon adopts as the basis of his exposition the ideas of Aristotle. Melanchthon retained (even after the promulgation of the Copernican System, to which Osiander, the greatest of the Lutheran theologians of the period of the Reformation, was friendly, and notwithstanding that he himself confessed the eminence and soundness of Copernicus in other respects) the Aristotelico-Ptolemaic astronomy, even maintaining that the civil authorities were bound to suppress the new "so wicked and atheistic opinion." To the stars he ascribed an influence not only on the temperature (*ortus Pleiadum ac Hyadum regulariter pluvias affert, etc.*), but also on human destinies. Natural causes, he says, operate with necessity, except when God interrupts (*interrumpit*) the regular mode of action. In defining the soul Melanchthon defends the false reading ἐνδελέχεια against Amerbach (1504–57), whom the quarrel about ἐντελέχεια led finally to leave Wittenberg and to become a Catholic. Psychical life is classified by Melanchthon, after Aristotle, as vegetative (the θρεπτικόν of Aristotle),

sensitive—including the *vis appetitiva und locomotiva* (αἰσθητικόν, ὀρεκτικόν, κινητικον, κατὰ τόπον) and rational (νοητικόν); to the rational soul belong the intellect and the will. Melanchthon includes memory among the functions of the intellect (herein departing from Aristotle), and thus vindicates for the latter a share in the immortality attributed by Aristotle to the active intellect (νοῦς ποιητικός). The theory that ideas like those of number and order, and of geometrical, physical, and moral principles, are innate, he would not give up, yet represents the intellect as being excited to activity through the senses. Of the philosophical proofs offered by Plato, Xenophon, and Cicero, for the immortality of the soul, he says: *hæc argumenta cogitare prodest, sed tamen sciamus, patefactiones divinas intuendas esse.* In addition to the experience of the senses, the principles of the intellect and syllogistic inference, the divine revelation contained in the Bible constitutes a fourth and the highest criterion of truth. Melanchthon is unfriendly to theological speculations; the interpretation of the three persons in God as representing intellect, thought, and will—or *mens, cogitatio* and *voluntas (in qua sunt lætitia et amor)*—he admits only as containing a partially pertinent comparison. The joint author with Luther of the Reformation approved the execution of heretics; the burning of Servetus was a "pious and memorable example for all posterity."

Until the rise of the Cartesian and Leibnitzian philosophies, the Peripatetic doctrine reigned in the Protestant schools. The doctrine of Ramus—to which a few, including Rudolf Goclenius, made concessions—made but slight headway against it. Among its teachers were Joachim Camerarius (1500–1574), Jacob Schegk, and Philip Scherbius. Still there were some men who resumed the opposition which Luther had at first directed against it; among these we may mention in particular Nicolaus Taurellus (see below, § 111). In order, however, that the impulse to the emancipation of the spirit from every external, unspiritual power, and to its positive replenishment with the highest truths might accomplish its work in all the spheres of spiritual life, it was necessary that the Protestant principle should become generalized and deepened, so that it might extend beyond the merely religious sphere, and that, even within this sphere, the limitations with which the principle was burdened, and which more and more checked and falsified the reformatory movement, might be removed from it. Such a development was impossible by the way of a merely immanent development of ecclesiastical Protestantism on the basis of its historical beginnings; it was necessary that other factors should concur with this one for the production of the desired result. Cf. in particular § 111 and the remarks under § 114 on the genesis of Cartesianism.

§ 111. The modern mind, dissatisfied with Scholasticism, not only went back to the classical literature of ante-Christian antiquity and to the writings constituting the biblical revelation, but, setting out from the sciences of antiquity, also directed its endeavors more and more to independent investigation of the realities of nature and mind, as also to the problem of moral self-determination independently of external norms. In the fields of mathematics, mechanics, geography, and astronomy, the science and speculation of the ancients were first restored, and then, partly by a gradual progress, and partly by rapid and bold discoveries, materially extended. With the assured results of investigation were connected manifold and largely turbulent attempts to

establish on the basis of the new science new theological and philosophical conceptions, in which attempts were involved the germs of later and more matured doctrines. Physical philosophy in the transitional period was more or less blended with a form of theosophy which rested at first upon the foundation of Neo-Platonism and the Cabala, but which gradually, and especially on the soil of Protestantism, attained a more independent character. A physical philosophy thus blended with theosophy, not yet freed from scholastic notions nor contradicting the affirmations of ecclesiastical theology, and yet resting on the new basis of mathematical and astronomical studies, was maintained about the middle of the fifteenth century by Nicolaus Cusanus, in whom the mysticism of Eckhart was renewed, and from whom, later, Giordano Bruno derived the fundamental features of his own bolder and more independent doctrine. Physics, in its combination with theosophy, continued to be taught, and was further developed in the sixteenth century, and also even in the seventeenth. Among its professors were Paracelsus, the physician; Cardanus, the mathematician and astrologer; Bernardinus Telesius, the founder of the Academia Cosentina for the investigation of nature, and his followers, Franciscus Patritius, the Platonizing opponent of Aristotle, Andreas Cæsalpinus, the Averroistic Aristotelian, Nicolaus Taurellus, the opponent of the latter and an independent German thinker, Carolus Bovillus, a supporter of the Catholic Church and disciple of Nicolaus of Cusa, Giordano Bruno and Lucilio Vanini, the anti-ecclesiastical free-thinkers, and Thomas Campanella, the Catholic opponent of Aristotle. The religious element prevailed with Schwenckfeldt and Valentin Weigel, Protestant theologians, and with Jacob Böhme, the theosophist, among whose followers have been H. More, John Pordage, Pierre Poiret, and, in more modern times, St. Martin, and whose principles were employed by Baader and by Schelling—by the latter on the occasion of his passing over in his speculations from physical philosophy to theosophy. The theories of law and civil government were developed in an independent manner, without deference to Aristotelian or to ecclesiastical authority, and in a form more adapted to the changed political conditions of modern times, by the following men: Machiavelli, who placed an undue estimate on political power, to the attainment and retention of which he would have all other aims in life subordinated; Thomas Morus, the Utopian theorizer, who sought the diminution of social inequality and a mitigation of

the severities of legislation; Jean Bodin, the protagonist of tolerance; Gentilis, the liberal Professor of natural law, and Hugo Grotius, the founder of the theory of international law.

Of several of the natural philosophers of the transitional period, Thadd. Ans. Rixner and Thadd. Siber treat in their *Beiträge zur Geschichte der Physiologie im weiteren und engeren Sinne* (*Leben und Meinungen berühmter Physiker im 16. und 17. Jahrh.*), Sulzbach, 1819–26. Cf. works on the history of physical philosophy, and monographs, such as Max Parchappe's *Galilée*, Paris, 1866, etc. The philosophers of law and statesmen of the same period are especially treated of by C. von Kaltenborn, in *Die Vorläufer des Hugo Grotius*, Leipsic, 1848. Cf. also Joh. Jac. Smauss, *Neues System des Rechts der Natur*, Book I., pp. 1–370; *Historie des Rechts der Natur* (of especial value for the time before Grotius); L. A. Warnkönig, *Rechtsphilosophie als Naturlehre des Rechts*, Freiburg im Breisgau, 1839 (with new title-page, *ibid.*, 1854); H. F. W. Hinrichs, *Gesch. der Rechts- und Staatsprincipien seit der Reformation*, Leips., 1848–52; Rob. von Mohl, *Geschichte und Litteratur der Staatswissenschaften*, Erlangen, 1855–1858; Wheaton's *History of International Law*, and other works relating to the history of law and the philosophy of law, and politics.

The Works of Nicolaus of Cusa were published in the fifteenth century, probably at Basel, and in the sixteenth by Jacob Faber Stapulensis, Paris, 1514, also Bas., 1565; a German translation of his most important works by F. A. Scharpff, was publ. at Freiburg in 1862. Of him treat Harzheim (*Vita N. de C.*, Treves, 1730), F. A. Scharpff (*Der Card. N. v. C.*, Mayence, 1843), Fr. J. Clemens (*Giordano Bruno und Nic. Cus.*, Bonn, 1846), J. M. Düx (*Der deutsche Card. N. v. C. u. die Kirche s. Zeit*, Regensburg, 1847), Rob. Zimmermann (*Der Card. Nic. Cusanus als Vorläufer Leibnitzens*, from the Transactions of the Acad. of Sciences at Vienna for 1852, Vienna: Braumüller, 1852), Jäger (*Der Streit des Cardinals N. C. mit dem Herzoge Siegmund von Oesterreich*, Insbruck, 1861); T. Stumpf (*Die polit. Ideen des N. von C.*, Cologne, 1865). Cf. Kraus, *Verzeichniss der Handschriften, die N. C. besass*, in Naumann's *Serapeum*, 1864, Nos. 23 and 24, and 1865, Nos. 2–7; Jos. Klein, *Ueber eine Handschrift des Nic. v. Cues*, Berlin, 1866; Clem. Frid. Brockhaus, *Nicolai Cusani de concilii universalis potestate sententia* (*Diss. inaug.*) Leips., 1867.

The Works of Paracelsus were printed, Bas., 1589, Strasb., 1616–18, and Geneva, 1658; of him treat J. J. Loos in Vol. I. of Daub and Creuzer's *Studien*, Kurt Sprengel in Part 3d of his *Gesch. der Arzneikunde*, Rixner and Siber in the first part of *Beiträge zur Gesch. der Physiol.*, Sulzbach, 1819. Rob. Fludd, *Hist. macro- et microcosmi metaph., physica et technica*, Oppenheim, 1617. *Philos. Mosaica, Gudæ*, 1638. Bapt. Helmont. *Opera*, Amsterdam, 1648. etc. Franc. Merc. Helm. *Opusc. Philos*, Amsterdam, 1690. Cf. on J. B. v. Helmont, Rixner and Siber's *Beitr.*, No. VII., Spiess, H.'s *System der Medicin*, Frankfort, 1840, and M. Rommelaere, *Etudes sur J. B. Helmont*, Bruxelles, 1868. Joh. Marc. Marcia Kronland, *Idearum operatricum idea s. hypothesis et detectio illius occultæ virtutis, quæ semina fœcundat et ex iisdem corpora organica producit*, Prague, 1634; *Philosophia vetus restituta: de mutationibus, quæ in universo fiunt, de partium universi constitutione, de statu hominis secundum naturam et præter naturam, de curatione morborum*, Prague, 1662; on Marcus Marci see Guhrauer, in Vol. XXI. of Fichte's *Zeitsch. f. Ph.*, Halle, 1852, pp. 241–259.

Cardanus' work, *De Subtilitate*, appeared first in print in 1552, his *De Varietate Rerum* in 1556, his *Arcana Eternitatis* not till after his death, in his collected works: *Hieronymi Cardani Mediolanensis opera omnia cura Caroli Sponii*, Lyons, 1663. Cardanus' rule for solving equations of the third degree is found in his work (publ. 1543), entitled: *Ars magna s. de regulis algebraicis*. C. wrote an autobiography, which first appeared at Bas., 1542, and again, continued, *ibid.*, 1575; his natural philosophy is minutely expounded in the above-cited *Beitr. zur Gesch. der Physiol.*, by Rixner and Siber, No. II. Scaliger's *Exercitationes Exotericæ*, in reply to C.'s *De Subtilitate*, was published Par., 1557; C. replied in an *Apologia*, which is subjoined to the later editions of his *De Subtilitate*.

The two first Books of Bernardinus Telesius' principal work, *De Natura juxtà propria Principia*, appeared at Rome in 1565, the whole work, in nine Books, at Naples in 1586, and again at Geneva in 1588 with Andr. Cæsalpinus' *Quæstiones Peripateticæ*; certain minor works by Telesius were published together at Venice in 1590. An extended summary of his natural philosophy is contained in the third part of the above-cited *Beiträge* of Rixner and Siber.

Franciscus Patritius, *Discussiones peripateticæ, quibus Aristotelicæ philosophiæ universæ historia atque dogmata cum veterum placitis collata eleganter et erudite declarantur, Pars I–IV.*, Venice, 1571–81, Basel, 1581; *Nova de universis philosophia in qua Aristotelica methodo non per motum, sed per lucem et lumina ad primam causam ascenditur, deinde propria Patritii methodo tota in contemplationem venit divinitas, postremo methodo Platonica rerum universitas a conditore Deo deducitur*, Ferrara, 1591, Venice, 1593, Lond., 1611. Rixner and Siber treat of him in the fourth part of the "*Beiträge*" cited above.

Petrus Ramus, *Scholarum phys. libri octo*, Paris, 1565; *Schol. metaphys. libri quatuordecim*, Par., 1566.—Sebastian Basso, *Philosophiæ naturalis adv. Aristotelem libr. duodecim*, Par., 1621 (also 1649).—Claude Guil-

lermet de Berigard (or Bauregard), *Circuli Pisani seu de veterum et peripatetica philosophia dialogi*, Udine, 1643—47, Padua, 1661.—*Sennerti Physica*, Wittenberg, 1618; *Opera omnia*, Venice, 1641 etc.—*Magneni Democritus revivisces*, Pavia, 1646, etc.—*Maignani cursus philosophicus*, Toulouse, 1652, and Lyons, 1673.

Nicolaus Taurellus, *Philosophiæ triumphus, hoc est, metaphysica philosophandi methodus, qua divinitus inditis menti notitiis humanæ rationes eo deducuntur, ut firmissimis inde constructis demonstrationibus aperte rei veritas elucescat et quæ diu philosophorum sepulta fuit authoritate philosophia victrix erumpat; quæstionibus enim vel sexcentis ea, quibus cum revelata nobis veritate philosophia pugnare videbatur, adeo vere conciliantur, ut non fidei solum servire dicenda sit, sed ejus esse fundamentum*, Basel, 1573; *Alpes cæsæ, hoc est, Andreæ Cæsalpini Itali monstrosa et superba dogmata discussa et excussa*, Frankf., 1597, a polemical *Synopis Arist. Metaph.*, Hanau, 1596; *De mundo*, Amberg, 1603; *Uranologia*, Amb., 1603, *De rerum æternitate: metaph. universalis partes quatuor, in quibus placita Aristotelis, Vallesii, Piccolominei, Cæsalpini, societatis Conimbricensis aliorumque discutiuntur, examinantur et refutantur*, Marburg, 1604. On N. Taurellus have written, specially, Jac. Wilh. Feuerlin, *Diss. apologetica pro Nic. Taurello philosopho Altdorfino atheismi et deismi injuste accusato et ipsius Taurelli Synopsis Arist. metaphysices recusa cum annot. editoris*, Nuremberg, 1734; F. X. Schmid of Schwarzenberg, *Nic. Taur., der erste deutsche Philosoph, aus den Quellen dargestellt*, Erlangen, 1860, new ed. *ib.*, 1864.

On Carolus Bovillus, see Joseph Dippel, *Versuch einer syst. Darstellung der Philosophie des C. B. nebst einem kurzen Lebensabriss*, Würzburg, 1865.

The Italian works of Giordano Bruno have been edited by Ad. Wagner, Leipsic, 1829, the Latin, in part (especially those on Logic), by A. F. Gfrörer, Stuttg., 1834; *Jord. Br. de umbris idearum edit. nov. cur. Salvator Torgini*, Berl., 1868. On Bruno cf., besides F. H. Jacobi (cited below), and Schelling in his Dialogue entitled *Bruno oder über das natürliche und göttliche Princip der Dinge* (Berlin 1802), Rixner and Siber in the above-cited *Beiträge*, Part 5, Sulzbach, 1824; Steffens, in his *Nachgel. Schriften*, Berlin, 1846, pp. 43—76, Falkson, *G. Bruno* (written in the form of a romance), Hamburg, 1846, Chr. Bartholmèss, *Jordano Bruno*, Paris, 1846—47, F. J. Clemens, *Giordano Bruno und Nicolaus von Cusa*, Bonn, 1847, Joh. Andr. Scartazzini, *Giordano Bruno. ein Blutzeuge des Wissens* (a lecture), Biel, 1867; Domenico Berti, *Vita di G. Br.*, Florence, 1868. Cf. also M. Carrière, *Die philos. Weltanschauung der Reformationszeit*, Stuttg., 1849, p. 365 seq., and in the *Zeitschr. f. Philos.*, new series, 54, 1, Halle, 1869, pp. 128–134; and, on the relation of his doctrine to that of Spinoza, Schaarschmidt, *Descartes und Spinoza*, Bonn, 1850, p. 181 seq.

A complete edition of the works of Campanella was commenced (never completed) at Paris by their author; but recently (Turin, 1854) the *Opere di Tommaso Campanella*, have been published by Alessandro d'Ancona, prefaced by an essay on C.'s life and doctrine. Of him treat Rixner and Siber in Part 6 of the above-cited *Beiträge*; also Baldachini, *Vita e Filosofia di Tommaso Campanella*, Naples, 1840—42; Mamiani, in his *Dialoghi di Scienza Prima*, Par., 1846; Spaventa, in the *Cimento*, 1854, and in *Carattere e Sviluppo della Filosofia Ital. dal Secole XVI. sino al Nostre Tempo*, Modena, 1860. Cf. Sträter's *Briefe über ital. Philos.* in "*Der Gedanke*," Berlin, 1864—65; Sigwart, *Thomas Camp. u. seine politischen Ideen*, in the *Preuss. Jahrb.*, 1866, No. 11, and Silvestro Centofanti in the *Archivo storico Italiano*, Vol. I. p. 1, 1866.

Lucilio Vanini, *Amphitheatrum æternæ providentiæ*, Lyons, 1615; *De admirandis naturæ reginæ deæque mortalium arcanis libri quatuor*, Par., 1616. On Lucilio Vanini, cf. *Leben und Schicksale, Charakter und Meinungen des L. V., eines Atheisten im 17 Jahrh., von W. D. F.*, Leips., 1800, and Emile Vaisse, *L. V., sa vie, sa doctrine, sa mort, Extrait des Mémoires de l'Acad. impériale des sc. de Toulouse.*

Of Jacob Böhme's principal work, entitled "*Aurora oder die Morgenröthe im Aufgang*," an epitome was first printed in 1634; the work was published in a more nearly complete form at Amst., 1656 etc. His Works, collected by Betke, were published, Amst., 1675, more complete ed. by Gichtel, *ibid.*, 1682 etc.; and more recently by K. W. Schiebler, Leips. 1831—47, 2d ed., 1861 seq. Of him treat Adelung in his *Gesch. der menschl. Narrheit*, II, p. 210; J. G. Rätze, *Blumenlese aus J. B.'s Schriften*, Leipsic, 1820; Umbreit, *J. B.*, Heidelberg, 1835; Wilh. Ludw. Wullen, *J. B.'s Leben und Lehre*, Stuttg., 1836, *Blüthen aus B.'s Mystik*, Stuttg., 1838; Hamberger, *Die Lehre des deutschen Philosophen J. B.*, Munich, 1844; Chr. Ferd. Baur, *Zur Geschichte der protestantischen Mystik*, in *Theol. Jahrb.*, 1848, p. 453 seq. 1849, p. 55 seq.; H. A. Fechner, *J. B., sein Leben und seine Schriften*, Görlitz, 1857; Alb. Peip, *J. B., der deutsche Philosoph, der Vorläufer christlicher Wissenschaft*, Leipsic, 1860. Louis Claude St. Martin (1743–1804) translated several of Böhme's works into French: *L'Aurore naissante, Les trois principes de l'essence divine, De la triple vie de l'homme, Quarante questions sur l'âme, avec une notice sur J. B.*, Paris, 1800. On St. Martin (whose poems F. Beck has translated and annotated, Munich, 1863) cf. Matter, *St. M., le philosophe inconnu, son maître Martinez de Parqualle, et leurs groupes*, Paris, 1862, 2d ed., 1864.

Macchiavelli's Works, first published at Rome, 1531–32, have since been up to the most recent times very frequently republished, also repeatedly translated into French and English, and into German by Ziegler, Carlsruhe, 1832–41. *Istoria Fiorentine*, Florence 1532; German translation by Remont, Leipsic, 1846 [English translation by C. E. Lester, 2 Vols., New York, 1845; another translation was published in London in 1847.–*Tr.*]; cf. A. Ranke, *Zur Kritik neuerer Geschichtsschreiber*, Berl. and Leipsic, 1821. [English transl. of *Il Principe*, by J. S. Ryerley, London, 1810.–*Tr.*] The literature relating to Macchiavelli is brought together by Robert von Mohl (*Gesch. u. Litt. der Staatswissenschaften*, Vol. III, Erlangen 1858, pp. 519–591), who with great organizing talent gives a luminous summary of the manifold opinions of the different authors. Especially noteworthy among the attempts at refutation is the youthful composition of Frederick the Great: *Anti-Macchiavelli*, on which cf. besides Mohl (who here judges unfairly; although it was the intention of Frederick in writing the work to furnish an historical estimate and refutation of Machiavelli, and although his work viewed in this light is very weak, yet as an expression of the author's views of the conduct, in ethical and political regards, which befits a prince whose dominion is already secured, and of his reflections with reference to his own future conduct as a ruler, the work is well worthy of attention; Mohl errs in considering the work only in the former aspect), Trendelenburg, *M. und A.-M., Vortrag zum Gedächtniss F.'s d. G., gehalten am 25. Jan. 1855 in der k. Akad. der Wiss.*, Berlin, 1855, and Theod. Bernhardt, *Macchiavelli's Buch vom Fürsten und F.'s d. Gr. Antimacchiavelli*, Brunswick 1864.

Thomas Morus, *De optimo reip. statu deque nova insula Utopia*, Louvain, 1516 etc., German transl. by Oettinger, Leips., 1846. [The above is contained in Vol. II. of More's Complete Works, Louvain, 1566. This Vol. contained all his Latin works. The first, and the only other volume, containing M.'s English works, was printed at London, 1559.–*Tr.*] On More cf. Rudhart, Nuremberg, 1829, 2d ed., 1855, and Mackintosh, *Life of Sir Th. M.*, London, 1830, 2d ed., 1844.

Jean Bodin, *Six livres de la république*, Paris, 1577 (Latin version by the author, 1584); *Colloquium heptaplomeres*, German abridgment, with the Latin text in part, Berl., 1841; complete edition from MS. in the Library at Giessen, ed. L. Noack, Schwerin, 1857. A notice on the history of the work was published by E. G. Vogel, in the *Serapeum*, 1840, Nos. 8–10. Cf., on Bodin, H. Baudrillart, *J. B. et son temps, tableau des théories politiques et des idées économiques du seizième siècle*, Paris, 1853, and N. Planchenault (*président du tribunal civil d'Angers*), *Etudes sur Jean Bodin, magistrat et publiciste*, Angers, 1858.

On Hugo Grotius cf., among the more recent writers, H. Luden, *H. G. nach seinen Schicksalen und Schriften*, Berlin, 1806; Charles Butler, *Life of H. Gr.*, London, 1826; Friedr. Creuzer, *Luther und Grotius oder Glaube und Wissenschaft*, Heidelberg, 1846; cf. Ompteda, *Litt. des Völkerrechts*, Vol. I, p. 174, seq.; Stahl, *Gesch. der Rechtsphilosophie*, p. 158 seq., v. Kaltenborn, *Kritik des Völkerrechts*, p. 37 seq.; Robert von Mohl, *Die Gesch. und Litt. der Staatswiss.*, I, p. 229 seq.; Hartenstein, in *Abh. der sächs. Gesellsch. der Wiss.*, 1850, and in Hartenstein's *Hist.-philos. Abh.*, Leipsic, 1870; Ad. Franck, *Du droit de la guerre et de la paix par Grotius*, in the *Journal des Savants*, July, 1867, pp. 428–441. The principal work of Grotius, "*On the Law of War and Peace*," has been translated and annotated by Von Kirchmann and published in his *Philos. Bibliothek*, Vol. 16, Berlin, 1869.

Nicolaus Cusanus (Nicol. Chrypffs or Krebs), born in 1401 at Cusa, in the archbishopric of Treves, was educated in his youth among the Brothers of the Common Life, studied law and mathematics at Padua, then applied himself to theology, filled ecclesiastical offices, was a member of the Council of Basel, became in 1448 Cardinal, in 1450 Bishop of Brixen, and died in 1464 at Todi in Umbria. He occupies a middle position between Scholasticism and Modern Philosophy. Familiar with the former, he, like the greater part of the Nominalists before him, lacked its conviction that the fundamental propositions of theology were demonstrable by the scholastically educated reason. His wisdom, he affirmed, was the knowledge of his ignorance—of which subject he treats in his work (written in 1440), *De Docta Ignorantia*. In the subsequent work, *De Conjecturis*, complementary to the above, he affirms that all human knowing is mere conjecture. With the Mystics he seeks to overcome doubt and the difficulties arising from the inadequacy of human conceptions in theology, by the theory of man's immediate knowledge or intuition of God (*intuitio, speculatio, visio sine comprehensione, comprehensio incomprehensibilis*), a theory grounded on the Neo-Platonic doctrine that the soul in the state of ecstasy (*raptus*) has power to transcend all finite limitations. He teaches that by intellectual intuition (*intuitio intellectualis*) the unity of contradictories (*coincidentia contradictorium*) is perceived (which principle, founded in the pseudo-Dionysian mystical philosophy, had already reappeared with Eckhart and his disciples, and was again taken up by Bruno). But with the skepticism and mysticism of Nicolaus of Cusa was combined the spirit and practice of mechanical and astronomical investigation on the basis of observation and mathematics. From the influence of this practice on his philosophic thought arises the essential community of his doctrine

with modern philosophy. In 1436, already, Nicolaus had written a work, *De Reparatione Calendarii*, in which he proposed a reform of the calendar similar to that of Gregory. His astronomical doctrine included the idea of the rotation of the earth on its axis, whereby he became a fore-runner of Copernicus (whose work on the paths of the celestial bodies appeared in 1543; cf., among other works, Franz Hipler, *Nicolaus, Copernicus, und Martin Luther*, Braunsberg, 1868). In connection with his doctrine of the motion of the earth Nicolaus advanced to the theory of the boundlessness of the universe in both time and space, thus essentially transcending the limits of the medieval imagination, whose conceptions of the universe were bounded by the apparent sphere of the fixed stars. In the philosophical deduction of his theology and cosmology Nicolaus Cusanus follows chiefly the numerical speculation of the Pythagoreans and the Platonic natural philosophy. Number, he teaches, is unfolded reason (*ratio explicata*, and *rationalis fabricæ naturale quoddam pullulans principium*). Nicolaus Cusanus defines God as the unity, which is without otherness (the ἕν, the ταὐτόν without ἕτερον), and (with Plato) holds the world to be the best of generated things. The world is a soul-possessing and articulate whole. Every thing mirrors forth in its place the universe. Every being preserves its existence by virtue of its community with all others. Man's ethical work is to love every thing according to its place in the order of the whole. God is triune, since he is at once thinking subject, object of thought, and thought (*intelligens, intelligibile, intelligere*); as being *unitas, æqualitas*, and *connexio*, he is Father, Son, and Spirit (*ab unitate gignitur unitatis æqualitas; connexio vero ab unitate procedit et ab unitatis æqualitate*). God is the absolute *maximum;* the world is the unfolded *maximum*, the image of God's perfection. In love to God man becomes one with God. In the God-man the opposition of the infinite and the finite is reconciled.

The Platonists of the next following time, and especially those of them who made much of the Cabala—such as Pico of Mirandula, Reuchlin, and especially Agrippa of Nettesheim, and also Franciscus Georgius Venetus (F. G. Zorzi of Venice), author of the work *De harmonia mundi totius cantica* (Ven., 1525)—give evidence in their works of the influence upon them of the new science of mathematics and the new spirit of natural investigation, which were being developed in their times. Still, their attempts to make use of natural science for the control of nature assumed, for the most part (as notably in the case of Agrippa), the form of the practice of magic.

The consciousness—clothing itself in the forms of mysticism—of a natural causality imparted by God to things, also lay at the bottom of the then widely-extended belief in astrology (a belief shared by Melanchthon). But the union of the independent study of nature with theosophy appears in this period most marked in the works of Philippus Theophrastus (Bombast) Höhener, or von Hohenheim, who called himself (translating the name Höhener or "von Hohenheim") Aureolus Theophrastus *Paracelsus* (born 1493 at Einsiedeln in Switzerland, died in 1541 at Salzburg). He intended to reform the science of medicine; diseases were to be healed rather by an excitation and strengthening of the vital principle (*Archeus*) in its struggle with the principle of disease and by the removal of obstacles, than by direct chemical reactions. Cold was not to be opposed by heat, nor dryness by moisture, but the noxious working of a principle was to be neutralized by its salutary working (an anticipation of the homeopathic doctrine). The doctrines of Paracelsus contain an extravagant mixture of chemistry and theosophy. To the same school with Paracelsus belonged Robert Fludd (*de Fluctibus*, 1574–1637), Joh. Baptista van Helmont (1577–1664) and his son, Franc. Mercurius von Helmont (1618–'99), Marcus Marci of Kronland (died 1676), who renewed the Platonic doctrine of *ideæ operatrices*, and others.

Hieronymus Cardanus (1501–1576), mathematician, physician, and philosopher, followed Nicolaus Cusanus in blending theology with the doctrine of number. He ascribed to the world a soul, which he identified with light and warmth. Truth, he said, was accessible only to a few. He divided men into three classes: those who are deceived but do not deceive, those who are deceived and who deceive others, and those who are neither deceived nor deceive. Dogmas useful for ends of public morals the State ought to maintain by rigid laws and severe penalties. When the people reflect concerning religion, nothing but tumults can arise from it. (Only the openness with which he confesses this doctrine is peculiar to Cardanus; as matter of fact, every power ideally condemned, but still outwardly dominant, has acted upon it.) These laws, it is true, are not binding on the wise; for himself Cardanus follows the principle: "Truth is to be preferred before all things, nor is it wrong for the sake of truth to oppose the laws" (*veritas omnibus anteponenda neque impium duxerim propter illam adversari legibus*). For the rest, Cardanus was a visionary, and full of puerile superstitions. His opponent, Julius Cæsar Scaliger (1484–1558), a pupil of Pomponatius, judges him thus: *eum in quibusdam interdum plus homine sapere, in plurimis minus quovis puero intelligere*, "in some things occasionally wiser than a man, but in most things less intelligent than any boy."

Bernardinus Telesius (born at Cosenza 1508, died *ib.* 1588) became one of the founders of modern philosophy by undertaking to combat the Aristotelian philosophy, not in the interest of Platonism, or any other ancient system, but in the interest of natural science, founded on original investigation of nature; but for support in this undertaking he resorted to the ante-Socratic natural philosophy, and especially to that propounded (but only as doctrine of appearances) by Parmenides. Syllogisms were, in his view, an imperfect substitute for sensation, in the matter of cognition. He founded at Naples a society of natural investigators, the Academia Telesiana or Cosentina, after the model of which numerous other learned societies have been formed.

Franciscus Patritius, born at Clissa in Dalmatia in 1529, taught the Platonic philosophy at Ferrara in the years 1576–93, and died at Rome in 1597. He blended Neo-Platonic with Telesian opinions. In his *Discussiones Peripat.* he explains and at the same time combats the Aristotelian doctrine. Many works attributed to Aristotle were considered by him as spurious. He entertained the wish that the Pope would employ his authority for the suppression of Aristotelianism, and in favor of the modified Platonism, the doctrine of emanations of light, which he had developed. He translated the commentary of Philoponus on the *Metaphysics* of Aristotle, and also Hermes Trismegistus and the Oracles of Zoroaster; his own doctrine was developed by him in the work entitled, *Nova de universis philosophia*, etc.

Among those who agreed with Telesius and Patritius in their opposition to the Aristotelian physics and metaphysics, and in the attempt to reform these doctrines, were Petrus Ramus, the above-named (§ 109, p. 12) opponent of the Logic of Aristotle, and who published (after the publication by his antagonist, Jac. Carpentarius, of a *Descriptio universæ naturæ ex Aristotele*, Par., 1562) *Scholarum phys. libr. octo*, and *Scholarum metaphys libr. quatuordecim;* also Sebastian Basso, author of *Philosophiæ naturalis adv. Aristotelem libr. duodecim*, and Claude Guillermet de Berigard (or Bauregard, who, about the year 1667, held a Professorship at Padua), in his work, *Circuli Pisani*, etc. As Gassendi (above, § 109, p. 15), from Epicurus, so Sennert and Magnenus drew from Democritus in their endeavors for reform in the department of physics, while Maignan followed Empedocles.

Among the above-named (109, pp. 10–15) Aristotelians, Andreas Cæsalpinus (1519–

1603), who developed Averroistic Aristotelianism into pantheism, should here be again mentioned as an independent investigator, to whom animal and vegetable physiology are indebted for important enlargements.

As a representative of the Protestant Church, Nicolaus Taurellus (born 1547 at Mömpelgard, died at Altdorf in 1606) combated not only the Averroistic Aristotelianism of Cæsalpinus, but also Aristotelianism in general, and all human authority in philosophy ("*maximam philosophiæ maculam inussit authoritas*"), and undertook to frame a new body of doctrine, in which there should be no conflict between philosophical and theological truth. Taurellus will not, he says, while he believes as a Christian, think as a heathen, or be indebted to Christ for faith, but to Aristotle for intelligence. He holds that but for man's fall philosophy would have sufficed (*dicam uno verbo quod res est : si peccatum non esset, sola viguisset philosophia*), but that in consequence of the fall, revelation became necessary, which completes philosophical knowledge by that which relates to the state of grace. Taurellus regards the doctrine of the temporal and atomic origin of the world (conceived as first made up of uncombined atoms,—and this doctrine in opposition to the theory of the creation of the world from all eternity), as also the dogma of the Trinity, not (with the Aristotelians) as merely revealed and theological, but (with Platonists) as also philosophically justifiable doctrines. But his Christianity is confined to fundamental dogmas; he will not be called a Lutheran or a Calvinist, but a Christian. The appropriation of salvation through Christ is, in his view, the work of human freedom. Those who convince themselves that Christ died for them will be saved, and all others will be eternally damned. The triumph of philosophy emancipated from Aristotelianism and in harmony with theology, is celebrated by Taurellus in the work: *Philosophiæ triumphus*, and in other works. Schegk and his pupil and successor, Scherbius, the Altdorf Aristotelians, defended against Taurellus, as also against Ramus, the Aristotelian doctrine; but Goclenius, Professor at Marburg, although admitting some of the doctrines of Ramus into his logic, was favorably disposed toward Taurellus. In general, Taurellus found little sympathy among his contemporaries. Leibnitz esteemed him highly as a vigorous thinker, and compared him to Scaliger, the acute opponent of Cardanus.

Carolus Bovillus (Charles Bouillé, born about 1470 or 1475, at Sancourt near Amiens, died about 1553, an immediate pupil of Faber Stapulensis, see above, § 109, p. 11) developed a philosophico-theological system, catholic in spirit, and founded on the principles of Nicolaus Cusanus.

Giordano Bruno, born in the year 1548 at Nola in the province of Naples, developed the doctrine of Nicolaus Cusanus in an anti-ecclesiastical direction. He was instructed in his youth in the humanities and in dialectic at Naples. He entered the Dominican Order, but quitted it upon arriving at convictions in conflict with the dogmatic teachings of the Church, and repaired to the Republic of Genoa, thence to Venice, and soon afterwards to Geneva. The reformed orthodoxy of Geneva, however, proved no more congenial to him than that of Catholicism, and leaving that city he went by way of Lyons to Toulouse, thence to Paris, and from Paris to Oxford and London. According to the theory of Falkson (*G. Bruno*, p. 289) and of Benno Tschischwitz (*Shakespeare's Hamlet*, Halle, 1868), Shakespeare became acquainted with a comedy entitled *el Candelajo*, written by Bruno while residing in London (1583–1586), and perhaps with others of his writings, and derived from them some of the ideas—particularly on the subject of the indestructiblity of the material elements and the relativity of evil—which he expresses by the mouth of the Danish Prince. From London Bruno journeyed by way of Paris to Wittenberg, thence to Prague, Helmstadt, Frankfort-on-the-Main—where

he remained till 1591—Zurich, and Venice; here, on the 23d of May, 1592, having been denounced by the traitor Mocenigo, he was arrested by the Inquisition, and in 1593 was delivered to the Roman authorities. In Rome he suffered several years' confinement in the dungeons of the Inquisition. At last, since he remained unmoved in his convictions, and with noble fidelity to truth scornfully refused to be guilty of a hypocritical submission, he was condemned to the stake (with the customary mocking formula: "Delivered to the secular authorities with the request that they would punish him as mildly as possible and without effusion of blood"). Bruno replied to his judges: "I suspect that you pronounce my sentence with greater fear than I receive it." He was burned at Rome in the Campofiore on the 17th of February, 1600, a martyr to scientific convictions founded on the free investigations of the new epoch. Emancipated Italy has honored him with a statue, before which, on the 7th of January, 1865, the Papal Encyclica of December 8, 1864, was burned by students. With the Copernican system of the universe, whose truth had become certainty for him, he considered the dogmas of the Church to be incompatible. And indeed soon afterwards (March 5, 1616) the Copernican doctrine, which had at first been not unfavorably received on the part of the ecclesiastical authorities, was described by the Index-Congregation as "*falsa illa doctrina Pythagorica, Divinæque Scripturæ omnino adversans.*" Bruno's astronomical views are an expansion of the Copernican doctrine. For him the universe is infinite in time and space; our solar system is one of innumerable worlds (for which doctrine he also cites the authority of Epicurus and Lucretius), and God the original and immanent cause of the universe. Power, wisdom, and love are his attributes. The stars are moved, not by a prime mover (*primus motor*), but by the souls immanent in them. Bruno opposes the doctrine of a dualism of matter and form; the form, moving cause, and end of organic beings are identical not only with each other, but also with the constituent matter of the organisms; matter contains in herself the forms of things, and brings them forth from within herself. The elementary parts of all that exists are the minima or monads, which are to be conceived as points, not absolutely unextended, but spherical; they are at once psychical and material. The soul is a monad. It is never entirely without a body. God is the monad of monads; he is the Minimum, because all things are external to him, and at the same time the Maximum, since all things are in him. God caused the worlds to come forth out of himself, not by an arbitrary act of will, but by an inner necessity, hence without compulsion, and hence also freely. The worlds are nature realized, God is nature working. God is present in things in like manner as being in the things that are, or beauty in beautiful objects. Each of the worlds is perfect in its kind; there is no absolute evil. All individual objects are subject to change, but the universe remains in its absolute perfection ever like itself.—Inimically disposed towards Scholasticism, Bruno held in high honor the attempts at new speculation, which he found in the works of Raymundus Lullius and Nicolaus Cusanus. When treading on neutral ground in philosophy he often defended the art of Raymundus. Of Nicolaus Cusanus, from whom he took the *principium coincidentiæ oppositorum*, he speaks in his works in terms of great respect, not forgetting, however, to mention that Nicolaus, too, was hampered by his priest's gown. He was pleased with the new path opened up by Telesius, but did not by personal and special investigations follow it himself. Bruno demands that, beginning with the lowest and most conditioned, we rise in our speculations by a regular ascent to the highest, but he did not himself always proceed according to this method. It was his peculiar merit that he laid hold upon the first results of modern natural science, and with the aid of a powerful fancy combined them in a complete system of the universe, a

system corresponding with the spirit of modern science. Those works of Giordano Bruno, in which he chiefly develops his system, were written in Italian. Of these the most important is the *Della Causa, Principio ed Uno*, Venice (or London), 1584; an abstract of this work is appended by F. H. Jacobi to his work on the doctrine of Spinoza (*Werke*, vol. iv. *Abth.* 1). In the same year appeared the *Dell' Infinito Universo e Mondi*. Of his Latin works the more important are: *Jordani Bruni de compendiosa architectura et complemento artis Lullii*, Venice, 1580; Paris, 1582. *De triplici minimo* (i. e. on the mathematical, physical, and metaphysical Minimum) *et mensura libri quinque*, Frank., 1591. *De monade, numero et figura liber, item de immenso et infigurabili et de innumerabilibus, seu de universo et mundis libri octo*, Frank., 1591.

Galileo Galilei (1564–1641) acquired by his investigation of the laws of falling bodies a lasting title to esteem not only as a physicist, but also as a speculative philosopher. Worthy of note are his maxims of method: independence of authority in matters of science, doubt, and the founding of inferences on observations and experiments.

Thomas Campanella (born at Stilo in Calabria in 1568, died at Paris in 1639), although a Dominican of the strongest ecclesiastical sympathies and a zealot for a universal Catholic monarchy, did not, since he appeared as an innovator, escape suspicion and persecution. Accused of conspiring against the Spanish government, he was kept in strict confinement from 1599 to 1626, after which he passed three years in the prisons of the Romish Inquisition; finally released, he passed the last years of his life (1634–1639) at Paris, where he met with an honorable reception. Campanella recognizes a twofold divine revelation, in the Bible and in nature. In a Canzone (translated into German by Herder) he describes the world as the second book in which the eternal mind wrote down its own thoughts, the living mirror, which shows the reflection of God's countenance; human books are but dead copies of life, and are full of error and deception. He argues especially against the study of nature from the works of Aristotle, and demands that (with Telesius) we should ourselves explore nature (*De gentilismo non retinendo; Utrum liceat novam post gentiles condere philosophiam; Utrum liceat Aristoteli contradicere; Utrum liceat jurare in verba magistri*, Par., 1636). The foundation of all knowledge is perception and faith; out of the latter grows theology, out of the former, under scientific manipulation, philosophy. Campanella (like Augustine and several Scholastics, especially Nominalists, and like Descartes subsequently) sets out from the certainty which we have of our own existence, seeking to deduce from it, first of all, the existence of God. From our notion of God he attempts to establish God's existence; not, however, ontologically (like Anselm), but psychologically. As a finite being—so he reasons—I cannot myself have produced in me the idea of an infinite being, superior to the world; I can only have received it through the agency of that being, who therefore must really exist. This infinite being, or the Deity, whose "primalities" are power, wisdom, and love, produced in succession the ideas, angels, the immortal souls of men, space and the world of perishable things, by mingling in increasing measures non-being with his pure being. All these existences have souls; there exists nothing without sensation. Space is animate, for it dreads a vacuum and craves replenishment. Plants grieve, when they wilt, and experience pleasure after refreshing rain. All the free movements of natural objects are the result of sympathy or antipathy. The planets revolve around the sun, and the sun itself around the earth. The world is God's living image (*mundus est Dei viva statua*). Campanella's theory of the state (in the *Civitas Solis*) is founded on the Platonic *Rep.*; but the philosophers called to rule are regarded by him as priests, and so (in his later works) this Platonic doctrine becomes the groundwork for the theory

of a universal rule of the Pope; he demands the subordination of the State to the Church, and such persecution of heretics as was practised by Philip II. of Spain.

Setting out from the Alexandrism of Pomponatius, Lucilio Vanini, the Neapolitan (born about 1585, burned at Toulouse in 1619), developed in his *Amphitheatrum Æternæ Providentiæ*, and in his *De admirandis naturæ*, etc., a naturalistic doctrine. That he affirmed his submission to the Church did not save him from a rather horrible than tragic doom.

In England it was Bacon of Verulam (1561–1626), above all others, that successfully conducted the contest against Scholasticism. Bacon stands on the boundary-line between the period of transition and the period of modern times, but may—partly since he discarded the theosophic element and sought a methodology for the pure investigation of nature, and partly because of his essential connection with a new and essentially modern development-series, culminating in Locke—be more appropriately treated of below (§ 113).

The natural philosophy of all the thinkers thus far named contained more or less of the theosophical element. Theosophy became predominant in the doctrines of Valentin Weigel and Jacob Böhme. Valentin Weigel (born in 1533 at Hayna, near Dresden, died after 1594; cf. on him Jul. Otto Opel, Leipsic, 1864) shaped his doctrine after that of Nicolaus Cusanus and of Paracelsus, and in part after that of Caspar Schwenckfeld of Ossing (1490–1561), who aimed at the spiritualization of Lutheranism. In a similar relation to Weigel and Paracelsus stood the shoemaker of Görlitz, Jacob Böhme (1575–1624), who by the idea—which dawned upon him in the midst of the dogmatic strife concerning original sin, evil, and free-will—of a "dark" negative principle in God (into which, in his hands, Eckhart's doctrine of the unrevealable absolute became transformed), acquired philosophical significance, and, in particular, offered a welcome starting-point for the speculation of Baader, Schelling, and Hegel, who took up again this same idea. However, in the development of his theosophy Böhme either seeks to minister solely to the ends of religious edification, or, when pretending to philosophize, proceeds fantastically, giving to chemical terms, which were not understood, psychological and theosophical significance, and identifying minerals with human feelings and divine personalities.

Nicolo Macchiavelli (born at Florence in 1469, died 1527), author of the History of Florence from 1215 to 1494, introduced into the philosophy of law and politics an essentially modern principle, by setting forth as the ideal, which the statesman must seek by the most judicious means to attain, the independence and power of the nation, and, so far as compatible therewith, the freedom of the citizen. This principle was announced by him with special reference to the case of Italy. With a prejudiced enthusiasm for this ideal, Macchiavelli measures the value of means exclusively with reference to their adaptation to the ends proposed, depreciating that moral valuation of them which regards them in themselves and in relation to other moral goods. Macchiavelli's fault lies not in the conviction (on which, among other things, all moral justification of war must be founded) that a means which involves physical and moral evils must nevertheless be willed on moral grounds, when the end attainable only through this means outweighs these evils by the physical and moral goods involved in it, but only in the narrowness of view implied in appreciating all means with sole reference to one end. This narrowness is the relatively necessary correlate to that extreme which was illustrated by representatives of the ecclesiastical principle, who estimated all human relations exclusively from the point of view of their relation to the doctrine of the Church, regarded as absolute truth, and to the society of the Church, regarded as synonymous with the kingdom

of God. Macchiavelli makes war on the Church as the obstacle to the unity and freedom of his country. He prefers before the Christian religion—which, he says, diverts the regard of men from political interests and beguiles them into passivity—the religion of Ancient Rome, which favored manliness and political activity. Macchiavelli's custom of subordinating all else to the one end pursued by him, has impressed upon his different works a different character. Of the two sides of his political ideal, namely, civil freedom, and the independence, greatness, and power of the state, the former is made prominent in the *Discorsi sopra la prima decade di Tito Livio*, and the latter in *Il Principe*, and that in such manner that in the *Principe* republican freedom is at least provisionally sacrificed to the absolute power of the prince. Still Macchiavelli reduces the discrepancy by distinguishing between corrupt and unhappy times, which need despotic remedies, and times when there exists that genuine public spirit which is the condition of freedom. "Whoever reads with a shudder M.'s *Prince* should not forget that M. for long years previously had seen his warmly-loved land bleeding under the mercenary hordes of all nations, and that he in vain recommended, in a special work, the introduction of armies of native militia" (Karl Kniess, *Das moderne Kriegswesen, ein Vortrag*, Berlin, 1867, p. 19).

In free imitation of Plato's ideal state, Thomas Morus (born at London 1480, beheaded 1535) gave expression in fantastic form, in his work, *De Optimo Reip.*, etc., to philosophical thoughts respecting the origin and mission of the state. He demands, among other things, equality of possessions and religious tolerance.

The philosophy of law and the state among Catholics and Protestants in this period was substantially the Aristotelian, modified among the former by Scholasticism and canonical law, and among the latter especially by biblical doctrines. Luther has in view only the criminal law when he says (in an address to Duke John of Saxony): "If all men were good Christians there would be no necessity or use for princes, kings, lords swords, or laws. For, what good end could they serve? The just man does of himself all and more than all that all laws require. But the unjust do nothing as they ought; for this reason they need the law, to teach, force, and urge them on to do well." Melanchthon (in his *Philosophiæ Moralis libri duo*, 1538), Joh. Oldendorp (*εἰσαγωγή, sive elementaris introductio juris naturalis, gentium et civilis*, Cologne, 1539), Nic. Hemming (*De lege naturæ methodus apodictica*, 1562, *etc.*), Benedict Winkler (*Principiorum juris libri quinque*, Leips., 1615), and others, found in the decalogue the outlines of natural law (*jus naturale*), Hemming, in particular, in the second table of the law, the first being, according to him, of an ethical nature and relating to the *vita spiritualis*. (Oldendorp's, Hemming's, and Winkler's works on natural law are given in outline in v. Kaltenborn's work cited above.) As in ethics, so in the theory of law and politics, Protestants laid emphasis on the divine order, and Catholics, and more particularly Jesuits (such as Ferd. Vasquez, Lud. Molina, Mariana, and Bellarmin; also Suarez and others), on the part of human freedom. The state is (like language), according to the Scholastico-Jesuitic doctrine, of human origin. Luther calls magistrates a sign of divine grace, for if uncontrolled the peoples of the earth would destroy each other by assassination and massacre. In their offices and in their secular government magistrates cannot be without sin, but Luther neither sanctions the resort to private vengeance on the part of those who have grievances, nor makes any mention of constitutional guaranties, but simply directs us to pray to God for those in authority. The early Protestant doctrine was favorable to political absolutism, but was nevertheless conducive to the social and religious freedom of the individual.

The merit of having vindicated the equal claim of all religious confessions to political toleration, and of having founded the theories of natural law and of politics on ethnography and the study of history, belongs especially to Jean Bodin (born at Angers 1530, died 1596 or 1597). His views on these topics are expressed in his *Six Livres de la République*, as also in his *Juris Universi Distributio* and his *Colloquium Heptaplomeres de abditis rerum sublimium arcanis* (very recently for the first time published entire). The *Colloquium* is an unpartisan dialogue on the various religions and confessions, and in it the demand of tolerance for all is based on the recognition, by the author, of the relative truth contained in each one of them. Bodin's ethics rest on a deistic basis.

Albericus Gentilis (born in 1551, in the district of Ancona, died, while a Professor at Oxford, in 1611) wrote among other works, *De legationibus libri tres* (Lond., 1585, etc.), *De jure belli libri tres* (Leyden, 1588, etc.), and *De justitia bellica* (1590). In these works he deduced the principles of legal right from nature, and particularly from human nature; took his stand with More and Bodin in favor of tolerance, and among other things demanded that the commerce of the sea be made free. He thus became a predecessor of Hugo Grotius.

Hugo Grotius (Huig de Groot, born at Delft 1583, died 1645, at Rostock), by his work: *Mare liberum seu de jure, quod Batavis competit ad Indica commercia* (Leyden, 1609), in which, in order to vindicate the claim of the Netherlanders to free trade in the East Indies, he develops philosophically the outlines of maritime law, and by his principal work, on Jurisprudence, *De Jure Belli et Pacis* (Paris, 1625, 1632, etc.), contributed to the permanent advancement of the science of natural law, and founded scientifically the doctrine of international law, or the law of nations. As in the law of persons, so in that of nations, or international law, Grotius distinguishes between *jus naturale* and *jus voluntarium* (or *civile*): the latter is based on positive provisions; the former flows with necessity from the nature of man. By the *jus divinum* Grotius understands the precepts of the Old and New Testaments; from this he distinguishes the law of nature as a *jus humanum*. Man is endowed with reason and language, and therefore intended to live in society; whatever is necessary to the subsistence of society comes within the sphere of natural right (and also, whatever furthers the pleasures of social life belongs, as *jus naturale laxius*, within the sphere of natural right in the wider sense). It is on the basis of this principle of society that, in questions of natural right, reason decides, with whose affirmations tradition generally agrees in civilized nations, furnishing in this sense an empirical criterion of natural right. Civil society rests on the free consent of its members, hence on contract. The right to punish belongs only in so far to the state, as the principle of the *custodia societatis* demands it: the object of punishment is not retribution (*quia peccatum est*), but simply the prevention of violations of the law by deterring and improving men (*ne peccetur*). Grotius demands that all positive religions should be tolerated, and that those only who deny what mere Deism even admits, viz., God and immortality, should not be tolerated. Still he defends in his *De Veritate Religionis Christianæ* (1619) the Christian dogmas common to the various confessions. The extensive biblical studies of Grotius (the fruits of which are communicated especially in the *Annot. in N. T.*, Amst., 1641–1646, etc., and *Annot. in V. T.*, Par., 1644, etc.) are of great philological, exegetical, and historical value; the religious standpoint of the author is a wavering one, retention in principle of faith in revelation, combined with an actual approximation to that critico-historical and rationalistic style of treatment which is incompatible with the continued existence of such faith. Chancellor Samuel Cocceji published in 1751, in five quarto volumes, his own and his father's commentaries on *Grot. de Jure Belli ac Pacis*.

SECOND DIVISION OF MODERN PHILOSOPHY.

PERIOD OF EMPIRICISM, DOGMATISM, AND SKEPTICISM AS RIVAL SYSTEMS.

§ 112. The Second Division in the history of Modern Philosophy is characterized by the coexistence, in developed form and in relations of mutual antagonism, of Empiricism and Dogmatism, while Skepticism attains to a more independent development than in the transitional period. According to the doctrine of Empiricism, the only method of philosophical inquiry is experiment and the combination of facts ascertained by experiment, and philosophical knowledge is limited to the objects of experience. Dogmatism is the philosophy of those who believe themselves able in thought to transcend the limits of all experience, and to demonstrate philosophically the fundamental doctrines of theology, in particular the doctrines of God's existence and of the immortality of the human soul—and who have not, therefore, through critique of the faculty of cognition, been brought to deny the possibility of transcending in speculation the sphere of experience. The principle of Skepticism is universal doubt, or at least doubt with regard to the validity of all judgments respecting that which lies beyond the range of experience. It differs from the later Critical Philosophy in not recognizing, on the ground of a critique of the reason, the existence of a province inaccessible, indeed, to human reason, but whose existence is rendered sure on other grounds.

On the philosophy of this period, cf.—besides the sections relating thereto in the larger historical works cited above (pp. 1, 2), as also the *Gesch. des 18. Jahrhunderts*, by Schlosser, and other historical works—especially Ludw. Feuerbach, *Gesch. der neueren Philosophie von Baco bis Spinoza*, Ansbach, 1833, 2d ed., 1844, together with his works which relate especially to Leibnitz and Bayle; Damiron, *Essai sur l'hist. de la philos. au XVIIme siècle*, Par., 1846; Do. *au XVIIIme siècle*, Par., 1858-64.

The foregoing definitions belong to Kant. The historic correctness of Kant's characterization of the types of philosophy which next preceded his own, may and must be admitted, even though Kant's philosophical standpoint be no longer regarded as philosophic truth or as the absolute standard of measurement for earlier systems. Kant's Criticism does not restrict the means of knowledge in philosophy to experience; it only declares that the objects of that knowledge are contained solely within the sphere of experience.

It is true that Empiricism proceeds "dogmatically" in this more general sense: that it founds itself on the belief that the objective world is not absolutely beyond the reach of our faculties of knowledge, but that it is, on the contrary, cognizable so far as our experience reaches. But Empiricism does not for this reason fall within the definition of Dogmatism as above given—the definition which since Kant's time it has been customary to connect with this word. Nor is it a more pertinent objection to

the above definitions, that the conception of Empiricism is rendered too narrow, being applicable only to the school which prevailed from Bacon to Locke; it applies no less to the Sensualism of Condillac and the Materialism of Holbach, by which philosophical knowledge was limited, in both form and context, to the Empirical. "Realism" and "Idealism," however, are terms of very indefinite and wavering signification.

To the empirical school belong Bacon and Hobbes and several of their contemporaries, Locke and the English and Scotch philosophers, whose doctrines, whether similar or opposed to his, were more or less nearly related to his doctrine, the French Sensualists and Materialists of the eighteenth century, and in part, also, the leaders of the German "clearing-up" period. The Coryphæi of the dogmatic school were Descartes, Spinoza, and Leibnitz. Skepticism reached its culminating point in Hume. That Spinoza is to be classed among the dogmatists, is correctly remarked by Kant, who, in a note to his essay entitled, "*Was heisst sich im Denken orientiren?*"—says that Spinoza proceeded so dogmatically with reference to the cognition of supersensible objects, that he even vied with the mathematicians in the rigor of his demonstrations. Cf. below, § 120.

Since the philosophers of these different directions exercised an important reciprocal influence on each other, it is scarcely possible to present the whole history of each of the principal schools in uninterrupted sequence; the chronological order will, therefore, so far as it corresponds with the genetical, be the more appropriate one.

§ 113. Bacon of Verulam (1561–1626) stripped off from natural philosophy the theosophical character which it bore during the Transitional Period, and limited it in its method to experiment and induction. The fundamental traits of this method he made a part of the philosophic consciousness of mankind, as emancipated in its investigations from the restriction to any particular department of natural science. He thus became the founder—not, indeed, of the empirical method of natural investigation, but—of the empirical line of modern philosophers. It was Bacon's highest aim to increase the power of man by enlarging the range of his knowledge. Just as the art of printing, powder, and the compass had transformed civilized life, and given to modern times their superiority over all preceding ages, so through ever new and fruitful discoveries the new path once opened was to be consciously pursued still further; whatever was conducive to this end was to be adopted and fostered, and that which would lead away from it was to be avoided. Religious controversies, says Bacon, are pernicious. Let religion remain untouched, but let it not (after the manner of the Scholastics) be mixed up with science; the mingling of science with religion leads to unbelief, and the mingling of religion with science, to extravagance. The mind must be freed from superstition and from prejudice of every kind, in order that, as a perfect mirror, it may so apprehend things as they are. Knowledge must begin with experience. It should set out with observation and

experiment, whence through induction it should rise methodically first to propositions of inferior, and then to others of higher generality, in order finally from these to redescend to the particular, and to arrive at discoveries which shall increase the power of man over nature. Bacon's historical significance arises from the following facts: that he indicated some of the essential ends and means of modern culture; that he vigorously—though one-sidedly—emphasized the value of genuine self-acquired knowledge of nature; that he overthrew the Scholastic method of beginning in philosophy with conceptions and principles supposed to be given by the reason or by divine revelation, and with it the disputatious, inexperimental science which was founded on this method; and that he indicated the fundamental features of the method of experimental, and inductive inquiry.

The development by Bacon in detail of the principles of his method, though containing some important merits, was in many respects a failure; and his attempts by personal investigation to apply in practice the method for which he had found the most general philosophical expression, were rude, and not to be compared with the achievements of earlier and contemporaneous investigators of nature. Bacon narrowly over-estimated the importance of the material elements of civilization. He attempted to supply the want of religious and moral culture on his own part, by an unconditional submission to dogmas to which he was himself indifferent, and by seeking after power with little reference to the means which he might employ. For this he paid the penalty in disgraceful weakness of character.

Hobbes (1588–1679), the political philosopher and friend of Bacon, developed, in application of Bacon's principles, a theory of the state as founded on the unconditional subordination of all actions and even of all opinions to the will of an absolute monarch. Ignoring the power of public spirit in political affairs, whereby the union of freedom and unity is rendered possible, Hobbes regarded this form of absolutism as the only means by which it was possible for man to emerge from his natural state, a state of universal war. Hobbes older contemporary, Herbert of Cherbury, founded a form of rationalism, the basis of which was a universal religion, or religion of nature, formed by abstraction from the positive religions, and regarded as containing alone the elements of all religion. In the next-succeeding period there prevailed among the English philosophers a renewed

Platonism, equally removed from the Aristotelianism of the Scholastics and from the naturalism of Hobbes, but friendly to mysticism and in part also to Cartesianism. Some, like Joseph Glanville, favored skepticism in science, in order to assure religious faith against all attacks.

The first draught of Bacon's work, *De Dignitate et Augmentis Scientiarum*, was written in English, and published under the title, *The Two Books of Francis Bacon on the Proficience and Advancement of Learning, Divine and Human*, Lond., 1605. The Latin version, much more full and elaborate, appeared, *ibid.* 1623, Leyden, 1652, Strasburg, 1654, etc., and in the German transl. of Joh. Herm. Pfingsten, Pesth, 1783. In the year 1612 appeared the work, *Cogitata et Visa*, which was subsequently worked over into the *Novum Organum Scientiarum*, first publ., London, 1620, and very frequently since then; recently, Leipsic, 1827 and 1839; translated into German by G. W. Bartholdy, Berlin, 1793, and by Brück, Leipsic, 1830. The *Essays, Moral, Economical, and Political*, which appeared first in 1597, have in recent times been edited (not to mention other editions) by W. A. Wright (Lond. 1862), and Rich. Whately (6th ed., Lond. 1864 [reprinted at New York.—*Tr.*]); their title in the Latin translation is *Sermones Fideles*. Bacon's *Works*, collected by William Rawley, and accompanied with a biography of Bacon, were published at Amst., in 1663, and at Frankfort-on-the-M., 1665; a completer edition was that of Mallet, likewise accompanied with a biography, Lond. 1740 and 1765. Latin editions of his Works have appeared at Frankf., 1666, Amst., 1684, Leips., 1694, Leyden, 1696, and Amst., 1730. French ed. by F. Riaux: *Œuvres de Bacon*, Paris, 1852. The most recent editions of his Works are those of Montague, London, 1825–34, Henry G. Bohn, London, 1846, and R. L. Ellis, J. Spedding, and D. D. Heath, London, 1858–59, with a supplement (Vols. VIII. and IX. of the *Works*) entitled: *The Letters and Life of Francis Bacon, including all his occasional Works, newly collected, revised and set in chronological order, with a commentary biographical and historical, by James Spedding*, London, 1862–68. Of the numerous works on Bacon may be mentioned the following: *Analyse de la philosophie du chancelier François Bacon, avec sa vie*, Leyden, 1756 and 1778; J. B. de Vauzelles, *Histoire de la vie et des ouvrages de Fr. Bacon*, Paris, 1833; Jos. de Maistre, *Examen de la philosophie de Bacon*, Par., 1836, 7th ed., Lyons and Paris, 1865, 8th ed., *ibid.*, 1868; Macaulay, in the *Edinb. Review*, 1837, translated into German by Bülau, Leips., 1850; John Campbell, *The Lives of the Lord Chancellors of England*, vol. II., London, 1845, chap. 51; M. Napier, *Lord Bacon and Sir Walter Raleigh*, Cambridge, 1853; Charles de Rémusat, *Bacon, sa vie, son temps, sa philosophie et son influence jusqu'à nos jours*, 2d ed., Par., 1858, new edition, 1868; Kuno Fischer, *Franz Baco von Verulam, die Realphilosophie und ihr Zeitalter*, Leipsic, 1856, translated into English by John Oxenford, London 1857; cf. J. B. Meyer, *B.'s Utilismus nach K. Fischer*, Whewell und Ch. de Rémusat, in the *Ztschr. f. Ph. u. ph. Krit.*, N. S. Vol. 36, 1860, pp. 242–247; K. F. H. Marx, *Franz B. und das letzte Ziel der ärztlichen Kunst*, in the *Abh. der k. Ges. der Wiss. zu Göttingen*, Vol. IX., 1860; C. L. Craik, *Lord Bacon, his Writings and his Philosophy*, new edition, London, 1860; H. Dixon, *The Personal History of Lord Bacon, from unpublished letters and documents*, London, 1861, an attempt to defend the character of Bacon, to which reply was made in *Lord Bacon's Life and Writings, an Answer to Mr. H. Dixon's Pers. Hist. of L. B.*, London, 1861; Adolf Lasson, *Montaigne und Bacon*, in the *Archiv f. neuere Spr. u. Litt.*, XXXI., pp. 259–276, *Ueber B.'s wissenschaftliche Principien, Programm der Louisenst. Realschule zu Berlin*, Autumn 1860; Justus von Liebig, *Ueber Francis Bacon von Verulam und die Methode der Naturforschung*, Munich, 1863. Lasson and Liebig dispute (in part after the precedent set by Brewster, Whewell, and others) the opinion that Bacon either founded, practised, or even properly indicated the method of modern natural investigation. That which both of them censure in Bacon, is almost without exception justly censured; but his positive merits, the emphasis laid by him on natural science as a valuable element of general civilization, and his designation of the general principles of inductive inquiry, have been with equal justice emphasized by others. C. Sigwart, *Ein Philosoph und ein Naturforscher über B.*, in Haym's *Preuss. Jahrb.*, Vol. XII., No. 2, August, 1863; cf. his answer to a rejoinder by Liebig publ. in the *Augsb. Allg. Zeitung*, in *Preuss. Jahrb.*, XIII., No. 1, Jan. 1864; Heinr. Böhmer, *Ueber B. und die Verbindung der Philosophie mit der Naturwiss.*, Erlangen, 1864 (1863). E. Wohlwill, *B. v. V. und die Geschichte der Naturwissenschaft*, in the *D. Jahrb. f. Pol. u. Litt.*, Vol. IX., No. 3, Dec., 1863, und Vol. X., No. 2, Febr., 1864. George Henry Lewes says, in his work on Aristotle, p. 113 (London, 1864, German transl. by Carus, Leipsic, 1865): "Grandly as Bacon traces the various streams of error to their sources, he is himself borne along by these very streams, whenever he quits the position of a critic and attempts to investigate the order of nature for himself." Alb. Desjardins, *De jure apud Franciscum B.*, Par., 1862; Const. Schlottmann, *B.'s Lehre von den Idolen und ihre Bedeutung für die Gegenwart*, in Gelzer's *Prot. Monatsbl.*, Vol. 21, Febr. 1863; Th. Merz, *B.'s Stellung in der Culturgeschichte*, in Gelzer's *Prot. Monatsbl.*, Vol. 24, No. 3, Sept. 1864; H. v. Bamberger, *Ueber B. v. V. bes. vom medicinischen Standpunkte, Würzburger Gratulationsschrift zum 500jährigen Jubiläum der Universität zu Wien*, Würzburg, 1865.

Ed. Chaigne et Ch. Sedail, *L'Influence des travaux de B. d. V. et de Descartes sur la marche de l'esprit humain*, Bordeaux, 1865; Karl Grüninger, *Liebig wider Baco*, (*G.—Pr.*), Basel, 1866. Aug. Dorner, *De Baconis Philosophia* (*Inaug. Dissert.*), Berlin, 1867.

The Works of Hobbes, in collection made by himself, were published in Latin, Amst., 1668; the first English complete edition of his moral and political Works appeared at London, in 1750. [Complete works, Molesworth ed., 16 vols., Lond., 1839–1855.] Notices respecting the life of Hobbes are found partly in his own writings, particularly in his Autobiography (*The Life of Thomas Hobbes, written by himself in a Latin Poem, and translated into English*, Lond., 1680), and partly in the compilation published by Richard Bathurst, entitled: *Th. H. Angli Malmesburiensis vita, Carolopoli apud Eleutherium Anglicum*, 1681; among the historians of philosophy Buhle treats minutely of the life, works, and doctrine of Hobbes, *Gesch. der neueren Philosophie*, Vol. III., Gött., 1802, pp. 223–325. A monograph on his theory of the state, written by Heinrich Nüscheler, has been published by Kym, Zürich, 1865.

Francis Bacon, son of Nicholas Bacon, the Keeper of the Great Seal of England, was born at London on the 22d of January, 1561. He studied at Cambridge, passed two years in Paris as companion of the English ambassador, and afterwards practised law. Thus prepared, he entered Parliament in 1595, and became in 1604 the salaried legal adviser of the crown, in 1617 Keeper of the Great Seal, in 1619 Lord Chancellor and Baron of Verulam, and in 1620 Viscount of St. Albans. But in 1621, having been condemned by Parliament for receiving bribes, he was deprived of all his offices, and thenceforward he lived in retirement at Highgate until his death, which took place April 9, 1626.

Bacon's plan for the reorganization of the sciences embraced, in the first place, a general review of the whole field of the sciences (or the *globus intellectualis*), next the doctrine of method, and finally the exposition of the sciences themselves and their application to new discoveries. Accordingly the general work to which Bacon gives the name of *Instauratio Magna* begins with the treatise *De Dignitate et Augmentis Scientiarum*. To this is joined, as the second principal part, the *Novum Organon*. But to the exposition of natural history (which Bacon regards as *veræ inductionis suppellex sive Sylva*) and to the explanation of natural phenomena, as also to the work of furnishing a catalogue of inventions already made and directions for the discovery of new ones, Bacon only made isolated and incomplete contributions. The *Sylva Sylvarum* (collection of collections of materials) *sive Historia Naturalis*, first published after his death, is his most important work on Natural History, as is, in the department of the interpretation of nature, his theory that heat is a species of motion (namely, expansive motion, whose tendency is to ascend, which extends through the more diminutive parts of bodies, is checked and driven back, and takes place with a certain rapidity).

History, according to Bacon, rests on the faculty of memory, poetry on the imagination, and philosophy or science proper on the understanding. Bacon divides history into *Historia Civilis* and *Naturalis*. In connection with the former he mentions especially, as desiderata, the history of literature and the history of philosophy. Poetry he divides into epic, dramatic, and allegorico-didactic. Philosophy has for its objects God, man, and nature (*Philosophiæ objectum triplex: Deus, natura et homo; percutit autem natura intellectum nostrum radio directo, Deus autem propter medium inæquale radio tantum refracto, ipse vero homo sibimet ipsi monstratur et exhibetur radio reflexo*). In so far as our knowledge of God is derived from revelation, it is not knowledge, but faith; but natural or philosophical theology is incompetent to ground any affirmative knowledge, although it is sufficient for the refutation of atheism, since the explanation of nature by physical causes is incomplete without recourse to divine providence. Says Bacon: "Slight tastes of philosophy may perchance move one to atheism, but fuller draughts lead back to religion" (*leves gustus in philosophia movere fortasse ad atheismum, sed pleniores haustus ad religionem reducere*). As is God, so also, according to Bacon, is the spirit (*spiraculum*), which God has breathed into man, scientifically incognizable; only the physical soul, which is a thin, warm, material substance, is an object of scientific knowledge. *Philosophia prima* or *scientia universalis* develops the conceptions and principles which lie equally at the foundation of all parts of philosophy, such as the conceptions of being and non-being, similarity and difference, or the axiom of the equality of two magnitudes which are each equal to a third. The object of natural philosophy is either the knowledge, or the application of the knowledge of the laws of nature, and is accordingly either speculative or operative. Speculative natural philosophy, in so far as it considers efficient causes, is physics; in so far as it considers ends, it is metaphysics. Operative natural philosophy, considered as the application of physics, is mechanics; as the application of metaphysics, it is natural magic. Mathematics is a science auxiliary to physics. Astronomy should not only construe phenomena and their laws mathematically, but explain them physically. (But by his rejection of the Copernican system, which he regarded as an extravagant fancy, and by undervaluing mathematics, Bacon closed the way against the fulfilment by astronomy of the latter requirement.) The philosophical doctrine of man considers man either in his isolation, or as a member of society; it includes, therefore, anthropology (*philosophia humana*) and politics (*philosophia civilis*). Anthropology is concerned with the human body and the human soul. Psychology relates, first of all, to sensations and motions, and to their mutual relation. Bacon ascribes to all the elements of bodies perceptions, which manifest themselves by attractions and repulsions. The (conscious) sensations of the soul are, according to Bacon, to be distinguished from mere perceptions, and he demands that the nature and ground of this difference be more precisely investigated. After anthropology follows logic, or the doctrine of knowledge, whose end is truth, and ethics, or the doctrine of the will, whose object is the good (the welfare of the individual and of the community;—*logica ad illuminationis puritatem, ethica ad liberæ voluntatis directionem servit*). As the hand is the instrument of instruments, and the human soul the form of forms, so these two sciences are the keys of all others. The object of ethics is "internal goodness" (*bonitas interna*), that of politics (*philosophia civilis*) is "external goodness in intercourse, business, and government" (*bonitas externa in conversationibus, negotiis et regimine sive imperio*). Bacon demands that politics should not be treated of by mere school-philosophers, nor by partial jurists, but by statesmen.

Bacon develops the doctrine of method in the *Novum Organon*. He desires to show how we may attain that knowledge of the laws of nature, the practical application of which augments the power of man over nature (*Ambitio (sapientis) reliquis sanior atque augustior est: humani generis ipsius potentiam et imperium in rerum universitatem instaurare et amplificare conari artibus et scientiis, cujus quidem potentiæ et imperii usum sana deinde religio gubernet.—Physici est, non disputando adversarium, sed naturam operando vincere*). Science is the image of reality (*Scientia nihil aliud est, quam veritatis imago; nam veritas essendi et veritas cognoscendi idem sunt, nec plus a se invicem differunt, quam radius directus et radius reflexus.—Ea demum est vera philosophia, quæ mundi ipsius voces quam fidelissime reddit et veluti dictante mundo conscripta est, nec quidquam de proprio addit, sed tantum iterat et resonat*).

In order faithfully to interpret nature, man must first of all rid himself of the *Idols* (phantoms), *i. e.* of the false notions, which flow, not from the nature of the objects to be known, but from man's own nature. The deceptive modes of mental

representation (in particular the anthropomorphisms), which are founded in every man's nature, *e. g.* the substitution in physics of final causes for efficient causes, are called by Bacon "idols of the tribe," those arising from individual peculiarities, "idols of the cave," those caused by human intercourse through the aid of language, "idols of the forum," and those which are the result of tradition, "idols of the theatre." The doctrine of the idols in Bacon's New Organon has a similar significance to that of the doctrine of fallacies in Aristotle's logic; in the doctrine of the "idols of the tribe" the fundamental idea of Kant's Critique of the Reason is, in a certain measure, anticipated.

The mind purified from *idola* must, in order to arrive at the knowledge of nature, take its stand on experience, yet should not confine itself to mere experiences, but should combine them methodically. We should not, like the spiders, which draw their threads from themselves, derive our ideas merely from ourselves, nor should we, like the ants, merely collect, but we should, like the bees, collect and elaborate. First, facts must be established by observation and experiment; then these facts must be clearly arranged; and finally, by legitimate and true induction, we must advance from experiments to axioms, from the knowledge of facts to the knowledge of laws. That induction which Aristotle and the Scholastics taught, Bacon describes as *inductio per enumerationem simplicem;* and adds that it lacks the methodical character (which Bacon himself rather seeks, than really attains). Together with the positive instances, the negative instances must be considered, and differences of degree should be marked and defined; cases of decisive importance are as prerogative instances to receive especial attention; from the particular we should not at once hurry on, as if on wings, to the most general, but should advance first to the intermediate propositions, those of inferior generality, which are the most fruitful of all. Although Bacon demands also the regress from axioms to new experiments, especially to inventions, he yet holds the syllogism, in which Aristotle recognized the methodical instrument of deduction, in light esteem; the syllogism, he says, cannot come down to the delicacy of nature, and is useful as an organon of disputation rather than of science. This erroneous estimate of the scientific value of the syllogism coheres most intimately with Bacon's low appreciation of mathematics. The theory of induction was materially advanced by Bacon, although not completely and purely developed; but the doctrine of deduction did not receive from him its dues. In his high estimation of the value of experiments, Bacon followed especially Telesius.

Bacon held that upon the methodical basis furnished by him not only natural, but also moral and political science must be established. But to these latter sciences his only contributions were in the form of pregnant aphorisms—imitated frequently from Montaigne—but not in the form of a coherent development of doctrine. An attempt to explain civil government from the point of view of natural law was made by Bacon's younger contemporary and friend, Thomas Hobbes.

Born on the 5th of April, 1588, at Malmesbury, and the son of a country clergyman, Thomas Hobbes studied, at Oxford, especially the Aristotelian logic and physics, and adopted the nominalistic doctrine. In his twentieth year he became a tutor and companion in the house of Lord Cavendish, the subsequent Earl of Devonshire, with whom he travelled in France and Italy. After his return he became a personal friend of Bacon. In the year 1628 he translated Thucydides into English, with the expressed intention of producing a dread of democracy. Soon afterwards he studied at Paris mathematics and the natural sciences, in which he subsequently instructed King Charles II.; at Paris he was in constant intercourse with Gassendi and the Franciscan monk, Mersenne. Hobbes appreciated in their full worth the doctrines of Copernicus, Kepler, Galileo, and Harvey. Not long before the opening of the Long Parliament (1640), he wrote in England the works entitled *On Human Nature* and *De Corpore Politico*, but did not at once publish them. At Paris he wrote his chief works: *Elementa philos. de Cive* (first published at Paris, 1642, then enlarged and republished, Amst., 1647, and in the French translation of Sorbière, 1649), and *Leviathan, or the Matter, Form, and Authority of Government* (London, 1651, in Latin, Amst., 1668, in German, Halle, 1794 and 1795). In 1652 Hobbes returned to England, having by his *Leviathan* made enemies of both Catholics and Protestants. At London appeared the works: *Human Nature, or the Fundamental Elements of Policy* (1650), *De corpore politico, or the Elements of Law, Moral and Political* (1650), *Quæstiones de libertate, necessitate et casu* (1656), and *Elementorum philosophiæ sectio prima: de corpore* (in English, London, 1655), *Sectio secunda: de homine* (in English, London, 1658; both sections in Latin, Amst., 1668, in Hobbes' own collection of his Works); *Sectio tertia* was the *De Cive*. Hobbes died at Hardwicke, December 4, 1679.

Hobbes defines philosophy as the knowledge of effects or phenomena by their causes, and of causes from their observed effects by means of legitimate inferences; its end is that we may foresee effects, and make a practical use of this foresight in our lives. Hobbes thus agrees with Bacon in assigning to philosophy a practical end, but has, however, rather its political application than technical inventions in view. He shares Bacon's mechanical conception of the world. He defines reasoning as but a method of addition and subtraction. He differs, however, from Bacon, in recommending the employment in philosophy not only of the *methodus resolutiva sive analytica*, but also of the *methodus compositiva sive synthetica*, of whose value his mathematical studies especially had made him cognizant. Hobbes declares that philosophy has to do only with bodies; but with him whatever is bodily is substantial: the two conceptions are identical; a substance not a body is nothing. Bodies are natural or artificial, and of the latter the political body (the organism of the State) is the most important. Philosophy is accordingly either *natural* or *civil*. Hobbes begins with *philosophia prima*, which reduces itself for him to a complex of definitions of fundamental conceptions, such as space and time, thing and quality, cause and effect. This is followed by physics and anthropology. Bodies are composed of small parts, which are yet not to be conceived as absolutely indivisible. Of matter absolutely undetermined there is none; the universal conception of matter is a mere abstraction from definitely determined bodies. Hobbes reduces all real processes to motions. That which moves another thing must itself be moved, at least in its diminutive parts, whose motion can be communicated to distant bodies only through media; no direct effects are produced at a distance. The senses of animals and men are affected by motions, which are transmitted inwards to the brain, and from there to the heart; a reaction then sets in from the heart, expressing itself in a regressive motion and in sensation. The qualities apprehended by the senses (colors, sensations of sound, etc.) exist consequently only in the sensitive being; in the bodies which, through their motions, occasion these sensations, the like qualities do not exist; matter, however, is not incapable of sensation and thought. All knowledge grows out of sensations. After sensation, there remains behind the memory of it, which may reappear in consciousness. The memory of objects once perceived is aided and the communication of the same to others made possible by signs, which we connect with our mental representation of these objects; for this purpose words are especially useful. The same word serves as a sign for numerous

similar objects, and thereby acquires that character of generality which belongs only to words, and never to things. It depends on us to decide what objects we will always designate by the same word; we announce our decision by means of the definition. All thinking is a combining and separating, an adding and subtracting of mental representations; to think is to reckon.

Hobbes does not regard man as (like the bee, ant, etc.) a social being by natural instinct (*ζῶον πολιτικόν*), but describes the natural state of men as one in which all are at war with each other. But so unsatisfactory is this state, that it becomes necessary to emerge from it through a stipulated submission of all to the authority of an absolute ruler, to whom all render unconditional obedience, and from whom in return all receive protection, thereby, and thus alone, insuring the possibility of a really human existence. Outside of the State is found only the dominion of the passions, war, fear, poverty, filth, isolation, barbarism, ignorance, savagery; while in the State is found the dominion of reason, peace, security, riches, ornament, sociability, elegance, science, and good-will. (This shows that the assertion is false, that Hobbes' State is "without all ideal and ethical elements," and aims only at security of life and sensual well-being.) The ruler may be a monarch or an assembly; but monarchy, as involving the stricter unity, is the more perfect form. With the social life of the State are connected the distinctions of right and wrong, virtue and vice, the good and the bad. What the absolute power in the State sanctions is good, the opposite is bad. The right of the State to punish flows from its right of self-conservation. Punishment should be inflicted, not for past wrong, but with a view to future good; the fear of punishment should be such as to outweigh the pleasure which may be expected from an act forbidden by the State, and by this principle the degree of punishment should be determined. Religion and superstition are the same in this respect, that they are both the fear of invisible powers, whether imaginary, or believed in on the faith of tradition. The fear of those invisible powers, which the State recognizes, is religion; that of powers not thus recognized, is superstition. To oppose one's private religious convictions to the faith sanctioned by the State is a revolutionary act, tending to dissolve the bands of the State. Conscientiousness consists in obedience to the ruler.

From the contract-theory (which, indeed, not so much describes the historical origin of the State as proposes an ideal norm for the appreciation of existing conditions), opposite results could be deduced with equal and even greater consistency, as shown by the doctrines subsequently propounded by Spinoza, Locke, Rousseau, and others.

Other thinkers in this and the next-following period did not go so far as to deny (with Hobbes) the intrinsic justification of all religion, but stopped at the idea of a religion which was to be founded on reason alone. The most notable of these was Hobbes' elder contemporary, Lord Edward Herbert of Cherbury (1581–1648), who as a politician stood on the side of the Parliamentary opposition. His principal work is entitled: *Tractatus de veritate prout distinguitur a revelatione, a verisimili, a possibili et a falso* (Paris, 1624, etc.); he also wrote *De religione gentilium errorumque apud eos causis*, (Part I., London, 1645; the completed work London, 1663, and Amst., 1670), *De religione Laici*, and historical works. He assumes that all men agree in certain common notions (*communes notitiæ*), and demands that these should serve as criteria in all religious disputes. His doctrine, as also that of later free-thinkers (of whom, in particular, Victor Lechler treats in detail in his *Gesch. des engl. Deismus*, Stuttg. and Tüb., 1841) [cf. John Leland, View of Deistical writers, Lond., 2d ed., 1755], is of more importance for the history of religion than for the history of philosophy. Cf. Ch. de Rémusat, *Lord Herbert de Cherbury, Revue des deux mondes VII., liv.* 4, 1854.

Until the time of Locke, Empiricism had not won the supremacy in the English schools; Scholasticism was confined within narrower limits, but chiefly in the interest either of Skepticism, or of a renewed Platonism, Neo-Platonism, or Mysticism. The philosophy of Skepticism was supported by Joseph Glanville (Court Chaplain to Charles the Second; died 1680), who in his works, *Scepsis Scientifica, or Confest Ignorance the Way to Science, an Essay of the Vanity of Dogmatizing and Confident Opinion* (London, 1665), and *De Incrementis Scientiarum* (London, 1670), opposed, particularly, Aristotelian and Cartesian dogmatism; he observes that we do not experience, but only infer causality, and that not with certainty (*nam non sequitur necessario, hoc est post illud, ergo propter illud*). The most distinguished of the Platonists of this period was Ralph Cudworth (1617–1688), who combated the atheism which Hobbes' doctrine had favored, vindicated the right of final causes to a place in physics, and assumed in explanation of organic growth a formative energy, a plastic nature. His principal work is, *The True Intellectual System of the Universe, wherein all the Reason and the Philosophy of Atheism is Confuted* (London, 1678 and 1743; translated into Latin by Joh. Laur. Mosheim, Jena, 1733, and Leyden, 1773). Sam. Parker (died 1688) also combated the atomistic physics, and in his *Tentamina physico-theologica* (Lond., 1669, 1673) and other works founded the belief in God's existence chiefly on the marks of design manifest in the structure of natural objects. Henry More (1614–87; *Opera philosophica*, London, 1679) combined Platonism with Cabalism. Theophilus Gale (1628–77; *Philosophia universalis*, and *Aula deorum gentilium*, Lond., 1676) derived all knowledge of God from revelation, and his son, Thomas Gale (*Opuscula mythologica*, etc., Cambridge, 1682), edited documents of theological poetry and philosophy. John Pordage (1625–98), Thomas Bromley (died 1691), pupil of the former, and others followed the line of speculation marked out by Jacob Boehme.

§ 114. At the head of the dogmatic (or rationalistic) development-series in modern philosophy stands the Cartesian doctrine. René Descartes (1596–1650) was educated in a Jesuits' school, was led by comparing the different notions and customs of different nations and parties, by general philosophical meditations, and more especially by his observation of the great remoteness of all demonstrations in philosophy and other disciplines from mathematical certainty, to doubt the truth of all propositions received at second hand. He accordingly conceived the resolution to set aside all presuppositions, and to seek, with no aid but that of his own independent thought, for assured convictions. The only thing, reasoned Descartes, which, though all else be questioned, cannot be doubted, is doubt itself, and, in general, thought viewed in its widest sense as the complex of all conscious psychical processes. But my thinking presupposes my existence: *cogito, ergo sum.* I find in me the notion of God, which I cannot have formed by my own power, since it involves a higher degree of reality than belongs to me; it must have for its author God himself, who stamped it upon my mind, just

as the architect impresses his stamp on his work. God's existence follows also from the very idea of God, since the essence of God involves existence—eternal and necessary existence. Among the attributes of God belongs truthfulness (*veracitas*). God cannot wish to deceive me; therefore, all that which I know clearly and distinctly must be true. All error arises from my misuse of the freedom of my will, in that I prematurely judge of that which I have not yet clearly and distinctly apprehended. I can clearly and distinctly apprehend the soul as a thinking substance, without representing it to myself as extended; thought involves no predicates that are connected with extension. I must, on the other hand, conceive all bodies as extended substances, and as such believe them to be real, because I can by the aid of mathematics obtain a clear and distinct knowledge of extension and am at the same time clearly conscious of the dependence of my sensations on external, corporeal causes. Figure, magnitude, and motion belong, as modes of extension, to external things; but the sensations of color, sound, heat, etc., like pleasure and pain, exist only in the soul and not in material objects. The soul and the body are connected and they interact, the one upon the other, only at a single point, a point within the brain, the pineal gland. Descartes considered body and spirit as constituting a dualism of perfectly heterogeneous entities, separated in nature by an absolute and unfilled interval. Hence the interaction between soul and body, as asserted by him, was inconceivable, although supported, in his theory, by the postulate of divine assistance. Hence Geulinx, the Cartesian, developed the theory of occasionalism, or the doctrine that on the occasion of each psychical process God effects the corresponding motion in the body, and vice versâ, while Malebranche propounded the mystical doctrine, that we see all things in God, who is the place of spirits.

Of the Works which Descartes published the earliest was the *Discours de la méthode pour bien conduire sa raison et chercher la vérité dans les sciences*, which appeared together with the *Dioptrique*, the *Météores* and the *Géométrie* under the title of *Essais Philosophiques*, Leyden, 1637, and in a Latin translation executed by the Abbé Etienne de Courcelles and reviewed by Descartes, with the title: *Specimina Philosophica*, Amst., 1644. (The *Géom.*, which was not contained in the latter edition, was translated by van Schooten, Leyden, 1649). In Latin, Descartes published, *Meditationes de prima philosophia, ubi de Dei existentia et animæ immortalitate; his adjunctæ sunt variæ objectiones doctorum virorum in istas de Deo et anima demonstrationes* (namely: 1. by Caterus of Antwerp [a Jesuit, who died in 1657]; 2. by various scholars at Paris—collected by Mersenne; 3. by Hobbes; 4. by Arnauld; 5. by Gassendi; 6. by various theologians and philosophers), *cum responsionibus auctoris*, Paris, 1641; the second edition appeared at Amsterdam in 1642 with the title: *Meditationes de prima philosophia, in quibus Dei existentia et animæ humanæ a corpore distinctio demonstratur*; in this edition are added to the *objectiones et responsiones* of the first, as *objectiones septimæ*, the objections of the Jesuit Bourdin, together with Descartes' answers; a French translation of the *Meditationes*, by the Duke of Luynes, and of the objections and replies, by Clerselier, revised by Descartes, appeared in 1647 and 1661, and another translation by René Fedé, in 1673 and 1724. The systematic presentation of the whole

doctrine of Descartes appeared under the title: *Renati Descartes Principia Philosophiæ*, at Amsterdam, in 1644, and the French translation by Picot in 1647, 1651, 1658, 1681. The controversial work: *Epistola Renati Descartes ad Gisbertum Voëtium* was published, Amst., 1643, and the psychological monograph: *Les passions de l'âme*, Amst., 1650. Several treatises and letters, left by Descartes, were published after his death, among which were, notably, fragments of a work which D. withheld from publication, on account of the condemnation of Galileo, and entitled: *Le monde, ou traité de la Lumière*, ed. by Claude de Clerselier and published first at Paris, 1664, and again—a better edition—Paris, 1677; further—also ed. by Clerselier—the *Traité de l'homme et de la formation du fœtus*, Par., 1664, and in Latin, with Notes by Louis de la Forge, 1677; *Letters*, Par., 1657–67, in Lat., Amst., 1668 and 1692; subsequently were published also the *Regulæ ad directionem ingenii* (*Règles pour la direction de l'esprit*), and, *Inquisitio veritatis per lumen naturale* (*Recherche de la vérité par les lumières naturelles*), first in the *Opuscula posthuma Cartesii*, Amst., 1701. Baumann is of the opinion (see *Zeitschr. f. Philos.*, new series, Vol. 53, 1868, pp. 189–205), that the *Règles pour la direction de l'esprit* (which are published in Vol. XI. of Cousin's edition of Descartes's Works) were written in the period between the twenty-third and thirty-second years of D.'s life, and finds in them evidence of the course of Descartes's own philosophical development. Complete editions, in Latin, of the philos. works of D. were published at Amst., 1650, etc. His complete works, in French, at Paris, 1701, *ibid.*, 1724, and edited by Victor Cousin, *ibid.*, 1824–26, and his philosophical Works, ed. by Garnier, Paris, 1835; some works previously inedited have been published by Foucher de Careil, *Œuvres inédites de Descartes, précédées d'une préface et publiées par le comte F. d. C.*, Paris, 1859–1860. Single works and collections of the principal philosophical works of D. have been published very frequently down to the most recent times. Among these publications may be mentioned that of the *Discours sur la méthode*, ed. by Em. Lefranc, Paris, 1866; the *Meditationes*, ed. by S. Barach, Vienna, 1866; *Œuvres de Descartes, nouvelle édition precédée d'une introduction par Jules Simon*, Paris, 1868. Kuno Fischer has recently translated D.'s principal philosophical works into German, and accompanied them with a preface, Mannheim, 1863.

The principal facts relating to the life and mental development of Descartes are given by himself, principally in his *Discours sur la Méthode*. Short biographies appeared soon after his death, one of them, written by A. Baillet, being quite full and bearing the title: *La Vie de Mr. des Cartes*, (Paris, 1691, abridged, *ibid.*, 1693). *Eloge de René Descartes, par Thomas*, Par., 1765 (*couronné* by the Academy of Paris). *Eloge de René Descartes par Gaillard*, Par., 1765; *par Mercier*, Geneva and Paris 1765. In the works on the history of modern philosophy and in many of the editions of works of Descartes are found sketches of his life and intellectual history; so, among other works, in the first vol. of the *Hist. de la Philos. Cartésienne par Francisque Bouillier*, Par., 1854, in the *Œuvres morales et philosophiques de Descartes, précédées d'une notice sur sa vie et ses ouvrages par Amédée Prevost*, Paris, 1855, etc. An attractive picture of his career is given by Kuno Fischer in his *Gesch. der neueren Philosophie*, I. 1, 2d ed., Mannheim, 1865, pp. 121–278; cf. also J. Millet, *Descartes, sa vie, ses travaux, ses découvertes avant 1637*, Paris, 1867; P. Janet, *Descartes*, in the *Revue des deux mondes*, Vol. 72, 1868, pp. 345–369; Jeannel, *Desc. et la princesse palatine*, Paris, 1869.

The chief work on the history of Cartesianism is the *Histoire de la Philosophie Cartésienne par Francisque Bouillier*, Paris and Lyons 1854 (an enlargement of the prize essay crowned by the Académie des Sciences Morales et Politiques, and published in 1843 under the title: *Histoire et Critique de la Révolution Cartésienne*); cf. the sections relative to the same subject in Damiron's *Histoire de la Philosophie du XVII. Siècle*, and in E. Saisset, *Précurseurs et disciples de Desc.*, Paris, 1862. Among the numerous recent essays and works on Cartesianism belong the following: Heinr. Ritter, *Ueber den Einfluss des Cart. auf die Ausbildung des Spinozismus*, Leips., 1816; H. C. W. Sigwart, *Ueber den Zusammenhang des Spinozismus mit der Cartesianischen Philosophie*, Tübingen, 1816; H. G. Hotho, *De philos. Cart. diss.*, Berl., 1826; Carl Schaarschmidt, *Des Cartes und Spinoza, urkundliche Darstellung der Philosophie Beider*, Bonn, 1850; J. N. Huber, *Die Cartesian. Beweise vom Dasein Gottes* Augsb., 1854; J. H. Löwe, *Das speculative System des René-Descartes, seine Vorzüge und Mängel*, Vienna, 1855, (from the Transact. of the *Akad., phil.-hist. Cl.*, Vol. XIV., 1854); X. Schmidt of Schwarzenberg, *René Descartes und seine Reform der Philosophie*, Nördlingen, 1859; Chr. A. Thilo, *Die Religionsphilosophie des Descartes*, in the *Zeitschr. f. ex. Ph.*, Leips., 1862, pp. 121–182; E. Saisset, *Précurseurs et disciples de Descartes*, Paris, 1862; Jul. Baumann, *Doctrina Cartesiana de vero et falso explicata atque examinata* (*diss. inaug.*), Berl., 1863; Ludw. Gerkrath, *De connexione, quæ intercedit inter Cart. et Pascalium* (*Progr. des Lyceum Hos.*), Brannsberg, 1863; Gust. Theod. Schedin, *Är Occasionalismen en konsequent utveckling af Cartesianismen?* (*Akademisk Afhandl.*), Upsala, 1864; Jac. Guttman, *De Cartesii Spinozæque philosophiis et quæ inter eos intercedat ratio* (*Diss. inaug.*, Breslau, 1868; T. J. Elvenich, *Die Beweise für das Dasein Gottes nach Cartesius*, Breslau, 1868; Charles Waddington, *Desc. et le spiritualisme*, Paris, 1868. Cf. the accounts of the doctrine of Descartes in the historical works of Buhle, Tennemann, Ritter, Feuerbach, Erdmann, Fischer, and others.

Blaise Pascal, *Lettres provinciales*, Cologne, 1657, etc.; *Pensées sur la religion*, 1669, Amst., 1697, Par., 1720, etc., ed. by Faugère, Par., 1844; with Preface by J. F. Astié, Paris and Lausanne, 1857, in German

translation by Friedr. Meerschmann, Halle, 1865; *Œuvres*, The Hague, 1779, ed. by Bossut in 6 Vols., Par., 1819; *Opuscula philos.*, Paris, 1864, 65, 66; of him treat, among others, Herm. Renchlin (*P.'s Leben und der Geist seiner Schriften*, Stuttgard and Tüb., 1840), A. Neander (in N.'s *Wiss. Abh.*, ed. by J. L. Jacobi, Berl., 1851, p. 58 seq.), Cousin (*Etudes sur P.*, 5th ed., Par., 1857), Havet (*Pensées publ. dans leur texte authentique avec une introduction, des notes et des remarques, par M. E. Havet*, Par., 1866), Maynard (*Pascal, sa Vie et son Caractère*, Paris, 1850), Märcker (in *Der Gedanke*, Vol. IV., Berlin, 1863, pp. 149-160), Oscar Ulbrich (*De Pascalis Vita, diss. inaug.*, Bonn, 1866), J. Tissot (*Pascal, réflexions sur ses pensées*, Dijon and Paris, 1869), and J. G. Dreydorff (*Pascal, sein Leben und seine Kämpfe*, Leipsic, 1870).

Pierre Poiret, *Cogitationes rationales de Deo, anima et malo*, Amst., 1677, etc.; *Œcon. divina*, Amst., 1687; *De eruditione triplici: solida, superficiaria et falsa*, Amst., 1692, etc.; *Fides et ratio collatæ ac suo utraque loco redditæ adversus principia Jo. Locki*, Amst., 1707; *Opera posthuma*, Amst., 1721.

On Huet, compare C. Bartholmèss, *Huet, évêque d'Avranches ou le scepticisme théologique*, Paris, 1850; A. Flottes, *Etude sur Dan. Huet*, Montpellier, 1857; Karl Sigmund Barach, *Pierre Dan. Huet als Philosoph*, Vienna and Leipsic, 1862. On Pierre Bayle cf. Des Maizeaux, *La vie de P. B.*, Amst., 1730, etc.; L. Feuerbach, *P. B. nach seinen für die Gesch. der Philos. und Menschheit interessantesten Momenten*, Ansbach, 1838, 2d ed., Leips., 1844.

Arnoldi Geulinx Logica fundamentis suis, a quibus hactenus collapsa fuerat, restituta, Leyden, 1662, Amst., 1698; *Metaphysica vera et ad mentem Peripateticorum*, Amst., 1695; Γνῶθι σεαυτόν, *s. Ethica*, Amst., 1665, Leyden, 1675; *Physica vera*, 1698; also, Commentaries on Descartes' Principles of Philosophy, Dordrecht, 1690 and 1691.—Nic. Malebranche, *De la recherche de la vérité où l'on traite de la nature, de l'esprit de l'homme et de l'usage qu'il doit faire pour éviter l'erreur dans les sciences*, Par., 1675, etc., completest ed., 1712; *Conversations métaphysiques et chrétiennes*, 1677; *Traité de la nature et de la grâce*, Amst., 1680; *Traité de morale*, Rotterd., 1684; *Méditations métaph. et chrétiennes*, 1684; *Entretiens sur la métaphysique et sur la religion* (a compendious exposition of his doctrine), 1688; *Traité de l'amour de Dieu*, 1697; *Entretiens d'un philosophe chrétien et d'un philosophe chinois sur la nature de Dieu*, Par., 1708; *Œuvres*, Par., 1712 [*Œuvres Complètes*, Par., 1837]; cf. the sections on Malebranche in Bouillier, *Hist. de la Philos. Cartésienne*, and in other historical works; further, Blampignon, *Etude sur Mal. d'après des documents manuscrits, suivie d'une correspondance inédite*, Paris, 1862; Ch. A. Thilo, *Ueber M.'s religions-philos. Ansichten*, in the *Zeitschr. f. ex. Philos.*, IV.; 1863, pp. 181-198 and 209-224; Aug. Damien, *Etude sur la Bruyère et Malebranche*, Paris, 1866; B. Bonieux, *Expenditur Malebranchii sententia de causis occasionalibus* (*Diss. Lugdunensi litt. fac. propos.*), Clermont, 1866.

Born on the 31st of March, 1596, at Lahaye in Touraine, René Descartes (changed from the earlier form, de Quartis; Lat. *Renatus Cartesius*) received his early education at the Jesuits' School at La Flèche in Anjou (1604–12), upon leaving which he lived for a number of years mostly at Paris, engaged chiefly with mathematical studies. He served (1617–21) as a volunteer, first under Maurice of Nassau, the son of Prince William of Orange, and then (from 1619 on) under Tilly and Boucquoi, and was with the army which won the battle at Prague against the King of Bohemia, Frederic V. of the Palatinate, whose daughter Elisabeth subsequently became Descartes's pupil. The next years were passed by Descartes in travelling. In 1624 he made a pilgrimage to Loretto, in execution of a vow which he had made four years before, on condition that his doubts should be solved; he also took part in the siege of La Rochelle (1628). Occupied in the elaboration of his system and the composition of his works, Descartes lived from 1629 to 1649 at various places in the Netherlands, until, in compliance with a summons from the Queen of Sweden, he removed to Stockholm, where he gave instruction to the Queen and was to found an Academy of Sciences. But the climate was too severe for him, and his death followed, February 11, 1650.

Descartes was the child of an epoch, when the interests of religious confessions, though still asserting their power over the popular masses and over a portion of the educated classes, were yet not only treated almost without exception by princes and statesmen as of decidedly secondary importance in comparison with political ends, but were also in the regards of many giving way before the influence of independent scientific knowlege. The distinguishing doctrines of the different parties were the product of the preceding generations, which in developing them had rejoiced in a new

spiritual freedom. But in the time of Descartes the transmitted results had already become scholastically fixed; the contest of religious parties had long since ceased to be conducted with the original vigor, and yet was continued with all the more bitterness, and turned more and more on mere subtleties; the cleft had become an abyss and was beyond remedy. At the same time it was of necessity that the evil of the rupture should be felt more than in the preceding period in incessant wars, destructive of the welfare and freedom of the lands over which they raged, and favorable to barbarity and crimes of every sort. In the midst of this state of affairs there arose a class of men who indeed looked up with timid reverence to the Church, fearing and, so far as possible, avoiding collisions with its representatives, but who had no positive interest in the dogmas of the Church, and who found satisfaction for mind and heart not in them, but partly in general theorems of rational theology and partly in mathematics, in the investigation of nature, and in the psychological and ethical study of human life. To those occupying this stand-point, differences of religious confessions, occasioned by birth and outward circumstances, offered no obstacle to intimate personal friendships, founded on community in essential living interests, in studies, and in efforts for the extension of the sciences. Whether military service was accepted under Catholics or Protestants depended less on the confession of the individual than on external, political, and exclusively military considerations. Their accustomed religious usages adhered more closely to men than did their religious dogmas; but they determined only the exterior aspect of life, whose spiritual content was essentially a new one. The philosophy of Descartes is neither a Catholic nor a Protestant philosophy; it is the expression of an independent effort to attain to truth on the ground and under the inspiration of that apodictical certainty which is illustrated in mathematics and in mathematical physics. To the "*vérités révélées*" he makes his bow, but guards himself carefully from any nearer contact with them. Bossuet says: "Descartes was always afraid of being branded by the church, and accordingly we see him taking precautions which reached even to excess." The conversion of the daughter of Gustavus Adolphus to Catholicism is said to have had for its first occasioning cause the intercourse of this princess with Descartes. That no direct influence, in the sense of "proselyting," was exercised, should need no mention. But the inference which followed directly from Descartes's new philosophy, that the distinctive doctrines of the different confessions were indifferent in themselves, and perhaps, positively, the emphasis laid by Descartes on human freedom—a doctrine harmonizing better with Catholic than with Protestant dogmas—may indeed be reasonably supposed to have exerted an essential influence on the mind of the princess in favor of the step taken by her.

Descartes occupies, not only as a philosopher, but also as a mathematician and physicist, a place of conspicuous importance. His principal merit in mathematics is that he founded analytical geometry, which, by determining the distances of all points from fixed lines (coördinates), reduces spatial relations to their arithmetical expression, and by the use of (algebraic) equations solves geometrical problems and demonstrates geometrical propositions. The practice of representing powers by exponents is also due to him. As a physicist his merits are founded on contributions to the doctrine of the refraction of light, the explanation of the rainbow, and the determination of the weight of the air. The fundamental error of Descartes, in conceiving matter as moved only by pressure and impulsion, and not by internal forces, was corrected by Newton's theory of gravitation; on the other hand, Descartes's doctrine of light and of the origin of the cosmical bodies contained many foreshadowings of the truth, which were ignored by the Newtonians, but which, through the undulatory theory of Huy-

gens and Euler, and the theory proposed by Kant and Laplace of the origin of the present state of the world, have again come into repute. Descartes also worked with success in the department of anatomy.

The *Discours de la Méthode* is divided into six parts: 1. Considerations relating to the sciences; 2. Principal rules of method; 3. Some rules of ethics, drawn from this method; 4. Reasons which prove the existence of God and the human soul, or foundation of metaphysics; 5. Order of questions in physics; 6. What things are necessary in order that man may advance further in the study of nature. In the first section Descartes relates how in his youth all sciences except mathematics left him dissatisfied. Of the philosophy which he learned in the college of the Jesuits, he can only say in its praise, that it "gives one the means of talking plausibly of all things, and of extorting the admiration of those less learned than one's self;" he holds all that it contained to be doubtful. He is astonished that on so firm a basis as that of mathematics no more elevated structure had been raised than the mechanic arts. The sciences handed down from the past, says Descartes in the second section, are for the most part only conglomerates of opinions, as ill-shaped as cities not built according to any one plan. That which one person does, following a regular plan, is, as a rule, far better than that which without plan or order has taken historic shape. It were indeed not well done to reform the state from the bottom, "overthrowing it in order to build it up again." Habit enables us to bear with imperfections more easily than we otherwise could, while the work of subversion demands violence, and rebuilding is difficult. To reject all his own opinions, in order afterwards to rise methodically to well-grounded knowledge, this is what Descartes sets before himself for his life's work. The method which Descartes here proposes to follow is formed upon the model furnished by the mathematics. He lays down four principles of method, which, in his opinion, are superior both to the Aristotelian logic—and especially to that part which treats of the syllogism, and which (says Descartes) is of more use for purposes of instruction than for investigation—and, much more, to the Lullian art of prating. These four methodical principles are: 1. To receive nothing as true which is not evidently known to be such, by its presenting itself to the mind with a clearness and distinctness which exclude all doubt (*si clairement et si distinctement, que je n'eusse aucune occasion de le mettre en doute*); 2. To divide, as far as possible, every difficult problem into its natural parts; 3. To conduct one's thoughts in due order, advancing gradually from the more simple and easy to the more complex and difficult, and to suppose a definite order, for the sake of the orderly progress of the investigation, even where none such is supplied in the nature of the subject investigated; 4. By completeness in enumerations and completeness in reviews to make it sure that nothing has been overlooked.* In the third section of the *Discours de la Méthode* Descartes enumerates certain ethical rules adopted by him provisionally (so long as a satisfactory moral philosophy should remain unfounded). The first of these is, to follow the laws and customs of his country, to hold fast to the religion in which he has been educated, and always in practical life to follow the most moderate and most generally received maxims. The second requires consistency in action, and the third moderateness in his demands, in respect of external goods. By the fourth he resolves to dedicate his life to the cultivation of his reason, and to the discovery of scientific truths. In the fourth and fifth sections of his *Discours* Descartes presents the outlines of the doctrine which he subsequently developed in the *Meditationes* and *Princ. Philos.*, while in the sixth he enlarges on the line of procedure necessary for the advancement of physics and for its further application to the healing art.

* These rules relate to the subjective conduct of the reasoner or investigator as such, and not to those forms and laws of thought which depend on the relation of thought to the objective world, and which the Aristotelian logic attempts to arrive at by an analysis of thought. They are, therefore, however judicious they may be in their kind, not in the least adapted to take the place of the Aristotelian logic; and even the work which originated in Descartes' school, *La Logique ou l'Art de Penser* (Paris, 1662, etc.), combined these Cartesian rules with a modified Aristotelian logic. The distinction, borrowed by Descartes from the Aristotelian school, between the analytical method, which proceeds from the conditioned to the conditioning, and the synthetic method, proceeding, inversely, from the conditioning to the conditioned, relates to the processes of thought considered in relation to the objects of thought; yet Descartes also gives to this distinction a more subjective turn, by regarding the analytical method as that of invention, and the synthetic as that of dialectical exposition—a view which is, at the most, only *a potiori*, but by no means absolutely correct.

In the *Meditationes de Prima Philosophia* Descartes seeks to demonstrate the existence of God, and the existence of the soul as an independent entity, separable from the body. In the first meditation Descartes shows that all things may be doubted except the fact that we doubt, or, since doubting is a species of thinking, except the fact that we think. From my youth up, says the author (following, in part, Charron and other skeptics), I have accepted as true a multitude of received opinions and have made them the basis of further beliefs and opinions. But that which rests on so insecure a basis can only be very uncertain; it is therefore necessary, at some time in my life, to rid myself of all traditional opinions and to rebuild from the foundation. The senses often deceive. I can therefore in no case trust them implicitly. Dreams deceive me by false images; but I find no sure criterion by which to determine whether at this instant I am asleep or awake. Perhaps our bodies are not such as they appear to our senses. That there is such a thing as extension, seems indeed to be beyond doubt; yet I know not whether some all-powerful being has not caused that there should exist in reality neither earth nor heavens, nor any extended object, nor figure, nor magnitude, nor place, and that nevertheless I should possess notions which represent to me as in a mirror all these objects as existing; or that in the addition of two and three, in the counting of the sides of a square, in the easiest reasonings, I should be deceived. My imperfection may be so great that I am always deceived. As Archimedes, says Descartes in the second Meditation, demanded only one fixed point in order to move the world, so I may justly indulge in great hopes, if I am fortunate enough to find but one proposition which is fully certain and beyond doubt. In fact one thing in the midst of my universal doubt is certain, namely, that I do really doubt and think, and therefore that I do exist. Admitting the existence of a powerful being bent on deceiving me, yet I must exist in order to be able to be deceived. When I think that I exist, this very act of thinking proves that I really exist. The proposition, "I am," "I exist," is always and necessarily true, whenever I express or think it. *Cogito, ergo sum.* I am certain only that I think; I am a "thinking thing" (*res cogitans, id est mens sive animus sive intellectus sive ratio*). The *res cogitans* is a *res dubitans, intelligens, affirmans, negans, volens, nolens, imaginans quoque et sentiens.* (Namely, as "*cogitandi modos*" I have certainly also sensations, although their relation to external objects and to the affection of the senses may be doubtful.) *Nonne ego ipse sum qui jam dubito fere de omnibus, qui nonnihil tamen intelligo, qui hoc unum verum esse affirmo, nego cætera, cupio plura nosse, nolo decipi, multa vel invitus imaginor, multa etiam tamquam a sensibus venientia animadverto?* I know myself as a thinking being better than I know external things.*

* The similarity of Descartes' point of departure with that of Augustine in his philosophizing, and with some of the theses of Occam (see above, Vol. I. §§ 86 and 105) and Campanella, is obvious. Descartes introduces the *res cogitans*—and hence the conception of substance—and the *ego*—and hence the conception of

the third *Meditation* Descartes advances to the subject of our knowledge of God. I am sure, he says, of this: that I am a thinking being; but do I not also know what is requisite to make me certain of anything? In the case of the first knowledge which I have acquired, nothing but the clear and distinct perception of that which I assert assured me of its truth, and this could not so have assured me if it were possible that anything, which I should conceive with the same clearness and distinctness, should be false; hence it seems to me that I may adopt it as a general rule, that all things which I conceive very clearly and distinctly are true (*jam videor pro regula generali posse statuere, illud omne esse verum, quod valde clare et distincte percipio*). Only the possibility that a being, with power superior to my own, deceives me in all things, could limit the application of this rule. I have, therefore, first of all, occasion to investigate the question of God's existence.* Of my thoughts—says Descartes in commencing this investigation—some are representations (ideas, i. e. forms of things received into my soul, εἴδη), some are acts of will and feelings, and some are judgments. Truth and error are only in the judgments. The judgment that a representation is in conformity with an object external to me may be erroneous, but the representation taken alone is not. Among my ideas, some appear to me to be innate, others to have come from without, and still others to have been formed by myself (*ideæ aliæ innatæ, aliæ adventitiæ, aliæ a me ipso factæ mihi videntur*). Among those of the first class I am inclined to reckon the ideas of thing, truth, thought, which I derive from my own nature (*ab ipsamet mea natura;* here Descartes does not distinguish between the innateness of an idea as such, and the origin of an idea, through abstraction, in the act of internal perception, the result of psychical functions, the capacity for which is innate). To the second class seem to belong all sensuous perceptions, and to the third, such fictitious ideas as that of a siren, a winged horse, etc. There exists a way by which to conclude from the psychical character of an idea,

individuality, the unity of consciousness in itself and its distinction from other things—without previous deduction into his fundamental proposition. Lichtenberg judged that Descartes should only have concluded: *cogitat, ergo est.* Further, it can be questioned (with Kant) whether in the consciousness which we have of our thinking, our willing, our sensations, and, in general, of all our psychical functions, we apprehend these functions just as they are in themselves, and whether our apprehension of them is not subjected to forms which belong only to the act of self-apprehension and not to that which is to be apprehended itself; in which case the phenomena of self-consciousness, as known through the "internal sense," would, like those of external objects known through the external senses, be different in form and nature from their real occasioning causes—e. g., the reports of our consciousness respecting our doubting, thinking, or willing, would not correctly represent the real internal processes designated by those names. (This latter question, however, would indeed have to be decided in Descartes's favor. See my *System der Logik*, 3d ed., Bonn, 1868, pp. 71–76.)

* In making the clearness of knowledge the criterion of its truth, Descartes overlooks the relativity of these conceptions. I must, indeed, in all cases accept as true that of which I am convinced that I have clear and distinct knowledge, but I should also be mindful that an apparently clear knowledge may, upon more profound consideration, evince itself as insufficient and erroneous; just as the truth of a clear, sensuous perception, e. g. of the sky, may be limited or disproved by clear scientific insight, so the validity of any stadium of thought may be limited and disproved by a higher one—in particular, the validity of thought immediately and unquestioningly directed to its objects, by thought regulated by a correct theory of cognition. It is wrong to claim for a lower stadium which, so long as no higher one has been reached, by a natural self-deception is regarded as the highest, that fuller verity which belongs to a higher one, and, in case such fuller verity proves in the end really wanting, to talk of malicious deception, of base imposture. The Cartesian criterion, formally considered, is ambignous, since it may be interpreted as referring to the distinctness of the idea as such, or to the distinctness of the judgment by which it is affirmed that certain ideas, either in themselves or in their mutual relations, are objectively true. Understood in the former sense, the criterion would be false; understood in the latter sense, it only throws the question farther back, since it is left undecided whence the distinctness of our conviction of the objective reality of the object of the idea arises.

whether it comes from a real object external to me. Different ideas have, namely, a different measure of *realitas objectiva*, i. e., they participate as representative images in higher or inferior degrees of being or perfection. (By the objective Descartes, precisely like the Scholastics, understands that which is ideally in the mind, not the external object, the *res externa;* by the subject he understands any substratum, ὑποκείμενον.) Ideas through which I think of substances are more perfect than those which represent only modes or accidents; the idea of an infinite, eternal, unchangeable, omniscient, omnipotent being, the creator of all finite things, has more ideal reality than the ideas which represent finite substances. But there can be no more reality in an effect than in the complete cause; the cause must contain either *formaliter* or *eminenter* all that is real in the effect (i. e., either the same realities, or others that are superior to them). Therefore, if the representative reality of any one of my ideas is so great that it exceeds the measure of my own reality, I can conclude that I am not the only being existing, but that there must exist something else which is the cause of that idea. Since I am finite, the idea of an infinite substance could not be in me, if this idea did not come from a really existing infinite substance. I may not regard the idea of the infinite as a mere negation of finiteness, like rest and darkness, the perception of which is only possible through the negation of motion and light; for the infinite includes more reality than the finite.* To this argument for the existence of God Descartes adds the following: I myself, who have the idea of God, could not exist without God. If I had been the author of my own being, I should have given myself all possible perfections—which yet, as matter of fact, I do not possess. If I owe my existence to others, to parents, ancestors, etc., yet there must be a first cause, which is God; a *regressus in infinitum* is all the less to be assumed, since even my continued existence from one instant to another cannot depend on myself, nor on finite causes of my existence, but only on the first cause. The idea of God is in the same way innate in me, as is the idea which I have of myself. (The kind of innateness Descartes leaves rather indefinite; he says: *Et sane non mirum est, Deum me creando ideam illam mihi indidisse, ut esset tamquam nota artificis operi suo impressa, nec etiam opus est, ut nota illa sit aliqua res ab opere ipso diversa, sed ex hoc uno quod Deus me creavit, valde credibile est me quodammodo ad imaginem et similitudinem ejus factum esse, illamque similitudinem, in qua Dei idea continetur, a me percipi per eandem facultatem, per quam ego ipse a me percipior, hoc est, dum in me ipsum mentis aciem converto, non modo intelligo me esse rem incompletam et ab alio dependentem remque ad majora et majora sive meliora indefinite aspirantem, sed simul etiam intelligo illum a quo pendeo, majora ista omnia non indefinite et potentia tantum, sed reipsa infinite in se habere, atque ita Deum esse, totaque vis argumenti in eo est, quod agnoscam fieri non posse ut existam talis naturæ, qualis sum, nempe ideam Dei in me habens nisi re vera Deus etiam existeret.*) Among the necessary attributes of God belongs the love of truth. God cannot wish to deceive. (*Velle fallere vel malitiam vel imbecillitatem testatur nec proinde in Deum cadit.*) From this attribute of veracity, Descartes draws conclusions in the subsequent *Meditations*. The cause of all my errors, says D., in the fourth *Meditation*, arises from the fact that my power of willing reaches farther than my understanding, and that I do not confine the exertion of the former within the limits demanded by the latter, but that, instead of withhold-

* Descartes, while justly denying that the idea of the infinite is a *mere* negation, does not attend sufficiently to the gradual process of idealization by which the positive content of this idea is acquired, nor consider whether, when the measure of representative perfection thus attainable is transcended, a positive addition is really made to the content of the idea, or the mind merely tends towards a negation of all limits through simple abstraction.

ing my judgment, I presume to judge also of that which I do not understand. To that which I know clearly and distinctly I may assent, for that clear and distinct knowledge must be true, follows from God's veracity.* Among things distinctly known Descartes reckons, in the fifth *Meditation*, the facts of extension in space, together with all mathematical propositions. But just as it follows from the essence of a triangle, that the sum of its angles is equal to two right angles, so it follows from the nature of God, that he exists; for by God we are to understand the absolutely perfect being; but existence is a perfection; hence existence is inseparable from God's essence, and hence God exists.† In the sixth *Meditation* Descartes concludes from the clear and distinct knowledge which we have of extension and of bodies, and from our distinct consciousness of ideas determined by an external and material cause, that bodies (i. e., extended substances) really exist, and that we are not deceived in our idea of a material world, since, were it otherwise, the ground of our deception must lie in God; but the sensations of color, sound, taste, etc., as well as pain and pleasure, are viewed by him as merely subjective. But from the fact that we have a clear and distinct idea of thought in the widest sense (including sensation and willing), and that in this idea no representation of anything material is contained, Descartes infers the independent existence of our souls apart from the body.‡

The development of ideas in the *Meditations* is designated by Descartes himself as analytical (that which is given as fact being analyzed with a view to the discovery of principles), conformably to the method of invention; a synthetic order of presentation (setting out from the most general or fundamental concepts and principles) is, he says, less adapted for metaphysical than for mathematical speculations. Descartes makes an attempt at synthetic exposition in an addendum to his reply to the second series of objections, but lays no great weight upon it.

The systematic and important work, *Principia Philosophiæ*, treats in successive sections of the principles of human knowledge, of the principles of material things, of the visible world, and of the earth. After a recapitulation of the principles laid down in the *Meditations*, follows the philosophical system, and especially the natural philosophy of Descartes, synthetically developed. In the preliminary considerations it is to be observed that the order of the proofs of God's existence is changed, the ontological argument (as also in the synthetic exposition in the answer to the *Obj. secundæ*) being placed before the others; in the conception of God, Descartes here says, is contained necessary, eternal, and perfect existence, whereas the conception of finite things includes only accidental existence.* The definitions, which appear in greater number and precision in the *Princ. Philos.* than in the *Meditations*, are worthy of notice. The definitions of clearness and distinctness and substance, are of fundamental importance. Descartes says (*Princ. Ph.*, I. 45): "In order that upon a perception a certain and incontestable judgment may be founded, it is necessary that the former be not only clear, but also distinct. I term a perception clear when it is present and manifest to the attentive mind, just as we say that we see a thing clearly when, being presented to the gazing eye, it affects the latter with sufficient power and plainness; and I term it distinct when it is not only clear, but is so separated and distinguished from all others that it plainly contains nothing but what is clear." (*Claram voco illam, quæ menti attendenti præsens et aperta est, sicut ea clare a nobis videri dicimus, quæ oculo intuenti præsentia satis fortiter et aperte illum movent; distinctam autem illam, quæ quum clara sit, ab omnibus aliis ita sejuncta est et præcisa, ut nihil plane aliud, quam quod clarum est, in se contineat.*) In illustration Descartes cites the example of pain: "Thus when one feels any great pain, the perception of pain is most clear to him, but it is not always distinct; for commonly men confound the perception with an obscure mental judgment concerning the nature of something in the part affected, which they imagine to resemble the sense of pain, which sense alone is all that they clearly perceive." The things which we perceive, says Descartes, are either things and affections (*sive modi*) of things, or eternal truths, having no existence external to our thoughts.

Among the eternal truths Descartes reckons such principles as the following: Nothing can originate from nothing (*ex nihilo nihil fit*); It is impossible that the same thing should at the same time exist and not exist; Whatever is done cannot be undone; He who thinks cannot be non-existent so long as he thinks. He divides "things" (*res*) into two highest genera: "The one of intellectual or thought-things, i. e., things pertaining to mind or thinking substance, and the other of material things, or things pertaining to extended substance, i. e., to bodies." (*Unum est rerum intellectualium sive cogitativarum, hoc est ad mentem sive ad substantiam cogitantem pertinentium; aliud rerum materialium sive quæ pertinent ad substantiam extensam, hoc est ad corpus.*) To thinking substance belong perception, volition, and all the modes of perception and volition; and to extended substance, magnitude or extension itself in length, breadth, and thickness, figure, motion, position, divisibility, and the like. From the union of the mind with the body arise the sensitive desires, emotions, and sensations, which belong to the thinking substance in its union with the body. After this classification (*Princ. Ph.*, I., 48–50) Descartes places the definition of substance (*ib.* 51): "By *substance* we can only understand that which so exists that it needs nothing else in order to its existence" (*per substantiam nihil aliud intelligere possumus, quam rem quæ ita existit, ut nulla alia re indigeat ad existendum*).—He adds (*ib.* 51–52), that indeed only one substance can be conceived as plainly needing nothing else in order to its existence, namely, God; for we plainly perceive that all others cannot exist without God's assistance; hence, he continues, the term substance cannot be applied to God and to them univocally—in the language of the schools—that is, no meaning of the term substance can be distinctly apprehended, which is at once applicable alike to God and to created

* By the aid of this same criterion, founded on the veracity of God, we have seen Descartes obliged to help out his proof of God's existence; if the certainty of God's existence depends on a knowledge whose certainty, in turn, depends on the existence of God, the argument moves undeniably in a circle. This was correctly pointed out and censured by Hobbes.

† Descartes here commits the same fault which Anselm committed—he forgets that it is a condition of every categorical inference from definitions, that the reality of the subject of definition be previously ascertained; this objection is rightly urged against him in the *Objectiones Primæ* by Caterus, who turns against him the Thomistic refutation of the Anselmic argument; and Descartes's defence does not meet the point at issue. Descartes's premises conduct logically only to the insignificant conclusion, that if God is, existence belongs to him, and if God is imagined, he must be imagined as existing. Besides, the Cartesian form of the ontological proof has a defect from which the Anselmic is free, namely, that the premise, "being is a perfection," involves a very questionable conception of being as a predicate among other predicates, while Anselm had indicated a definite kind of being, viz.: being, not merely in our minds, but also outside of them, as that in which superior perfection was involved.

‡ Here, however, it remains quite questionable, whether ἀφαίρεσις and χωρισμος, *abstractio* and *realis distinctio*, have not been confounded; Gassendi and others have justly censured, in their *Objections*, Descartes's confusion of two propositions: *a*) I can think of thought without thinking of extension; *b*) I can show that thought actually continues when the extended substance in connection with which it is manifested ceases to exist. Gassendi further objects, that it does not appear how images of that which is extended can exist in an unextended being; in reply to this objection Descartes denies, indeed, the corporeality of the images, but leaves unnoticed the fact of their being extended in three dimensions.

* This, of course, is only true upon the condition that objective necessity be strictly distinguished from subjective certainty of existence—in which case, however, we can only conclude: if there is a God, his existence is eternal, necessary, *per se*, and independent of all beside him.

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things; but corporeal substance and mind, or created thinking substance, can be apprehended as falling under this common definition, that they are things needing only the aid of God for their existence. From the existence of any attribute we can conclude to an existing thing or substance to which it belongs; but every substance has a "pre-eminent attribute, which constitutes its nature and essence, and to which all others relate; thus extension in three dimensions constitutes the nature of corporeal substance, and thought constitutes the nature of thinking substance; for everything else which can be ascribed to bodies presupposes extension, and is only some mode of an extended thing, just as also all things which we find in the mind are simply diverse modes of thought." Figure and motion are modes of extension, and imagination, sensation, and will are modes of thought (*ib.* 53). The modes can change in the same substance; the quality of a substance is only actual or present, not permanent; that which does not change is not properly mode or quality, but is to be designated only by the more general term of attribute (*ib.* 56). These definitions were of controlling influence, especially on the doctrine of Spinoza. Most of the details of the doctrine exposed in the *Princ. Philos.* are rather of scientific than of philosophical interest. Excluding all consideration of ends (*causæ finales*), Descartes seeks only to discover working causes (*causæ efficientes*, *Pr. Ph.* I. 28). He attributes to matter nothing but extension and modes of extension, no internal states, no forces; pressure and impulsion must suffice for the explanation of all material phenomena. The quantity of matter and motion in the universe remains unchanged (*Princ. Philos.*, II. § 36). Descartes assumes the quantity of motion as equal to the product of mass and velocity (*mv*). His proof of the constancy of this product in the universe is founded on the theological inference, that from God's attribute of invariability follows the invariability of the sum of his effects.* The soul can determine only the direction of motions, but can neither increase nor diminish their quantity. The cosmical bodies can be regarded as having first arisen from vortical motions in an original mass of chaotic matter. Where space is, there is also matter; the latter is, like space, infinitely divisible, and extends, if not *in infinitum*, at least *in indefinitum*. That with the overthrow of the notion of a spherically limited universe the theory of the periodical rotation of the same around the earth is also overthrown, is obvious; still, Descartes hesitated openly to confess his adhesion to the Copernican doctrine (cf. above, pp. 17 *et seq.*) for which Galileo had been condemned; he avoids the difficulty by saying that the earth, like all the planets, rests in the moving ether, as a sleeping traveller is at rest in a moving ship, or a ship carried along by the current is at rest in the current. Descartes seeks, by the laws of pressure and impulsion alone, not only to explain all physical phenomena, but also to account for plants and animals. He denies to plants the vital principle (ascribed to them by the Aristotelians), since, as he says, the order and motion of their parts are the sole cause of vegetation, and he is also indisposed to allow souls to animals. Whatever, in the life of the human soul, concerns the relation of the soul to the material world, is explained by Descartes altogether mechanically; he accounts, for example, for the association of ideas by the theory of permanent material changes produced in the brain when the senses are acted upon, and that these changes influence the subsequent development of ideas. As an unextended being, the soul can be in contact with the body only at one point, which point is in the brain (*Princ. Philos.*, IV. 189, 196,

* It is true that the quantity of matter in the universe remains unchanged. The like is not necessarily true of the quantity of motion, but only of the sum of what is now termed "living force" and "elasticity." See on this subject, in particular, Helmholtz, *Ueber die Erhaltung der Kraft*, Berlin, 1847.

197), or, more precisely (*Dioptr.*, IV. 1 seq.; *Pass. Anim.*, I. 31 seq.), in the pineal gland (*glans pinealis*), since the latter is that organ within the brain which is simple, and not, like most of the parts, double, existing on the right side and on the left.* The action of the soul on the body and of the body on the soul demands the concourse of God (*concursus* or *assistentia Dei*). (That the possibility of interaction was not excluded by the complete unlikeness in nature of the body and the soul, had already been asserted by Descartes in his answers to the objections of Gassendi against his *Meditations*.)

The treatise on the Passions of the Soul (*Passiones Animæ*) is a physiologico-psychological attempt to explain the passions, taken in their widest sense, according to the principles developed in the *Principia Philos.* From six primitive passions or emotions: admiration, love, hate, desire, joy, and sadness, Descartes seeks to deduce all others. The most perfect of all emotions is intellectual love to God. It is only occasionally that Descartes expresses himself on ethical subjects. The views thus expressed agree largely with the ethical doctrines of Aristotle. Descartes affirms that all pleasure arises from the consciousness of some perfection; virtue depends on the control of the passions by wisdom, which prefers to all inferior pleasure the pleasure arising from rational activity.

Among the disciples of Descartes were Reneri and Regius, at Utrecht; Raey, Heereboord, and Heidanus, at Leyden, and other Dutch scholars; and in France, many Oratorians and Jansenists, whose Augustinianism rendered them susceptible to the influence of the new doctrine. Among the Jansenists of the Abbey of Port-Royal (on whom cf. Herm. Reuchlin, *Gesch. von Port-Royal*, Hamb. and Gotha 1839–44, and St.-Beuve, *Port-Royal*, 3d ed., Paris, 1867), the most noteworthy friend of the Cartesian tendency was Anton Arnauld (1612–94; *Œuvres Complètes*, Lausanne, 1775–83), the author of the *Objectiones Quartæ*. Arnauld raised numerous questions in reference to the details of Descartes's doctrines, and confined the Cartesian rule of certainty to the objects of cognition. Among the more notable Cartesians belong also Pierre Sylvain Regis (1632–1707; *Cours entier de la philos.*, Paris, 1690, Amst., 1691), Pierre Nicole (1625–95; *Essais de morale*, Par., 1671–74, etc.; *Œuvres Mor.*, Par., 1718), and others; among the German Cartesians should be named Balthasar Bekker (1634–98; *De philos. Cartesiana admonitio candida et sincera*, Wesel, 1668), who especially distinguished himself by his opposition to the absurdity of trials for witchcraft (in his work, *Betoverde Weereld*—The World Bewitched—Leuwarden, 1690, and Amst., 1691–93); also Johann Clauberg (1625–65), teacher at Duisburg (*Logica vetusct nova*, etc., Duisb., 1656; *Opera philos.*, Amst., 1691), Sturm, of Altdorf, and others.

Among the opponents of Descartes, Hobbes and Gassendi occupied the naturalistic stand-point. (Among the numerous, and some of them extremely acute and pertinent objections of Gassendi, that particular one is not found, which alone is often mentioned as his, but which is only ascribed by Descartes in his answer to Gassendi, namely: that existence could be concluded from the going to walk; Gassendi says only, that existence can be concluded from any action, and he disapproves the Cartesian identification of all psychical actions as modes of thought. We become, indeed, sooner conscious of our existence through reflection on our acts of will, than through reflection on our acts of thought.) From the stand-point of theological

* To this doctrine, that the soul is located at a given single point, the doctrine of Spinoza is directly opposed, while the Leibnitzian doctrine of the soul as a monad is founded upon it. With the Cartesian assumption, that the pineal gland is the seat of the soul, conflicts the fact, that when this organ is destroyed, psychical life continues.

orthodoxy and Aristotelian philosophy, Cartesianism was combated especially by the Protestant Gisbertus Voetius and the Jesuits Bourdin (author of the *Objectiones Septimæ*), Daniel (*Voyage du monde de Descartes*, Par., 1691, Lat., Amst., 1694; *Nouvelles difficultés proposées par un Péripatéticien*, Amst., 1694, Lat., *ibid.*, 1694), and others. The Synod of Dortrecht, in the year 1656, forbade theologians to adopt it. At Rome Descartes's writings were in 1663 placed in the *Index Librorum Prohibitorum*, and in 1671 the exposition of the Cartesian doctrine at the University of Paris was by royal order prohibited.

Partly friendly, partly opposed to Cartesianism were such *mystical philosophers* as Blaise Pascal (1623–62; the fundamental thought in Pascal's philosophy is: "Nature confounds the Pyrrhonists, and reason the dogmatists. Our inability to prove anything is such as no dogmatism can overcome, and we have an idea of the truth which no Pyrrhonism can overcome, *Pensées*," Art. XXI.), Pierre Poiret (1646–1719), Ralph Cudworth (see above at the end of § 7), and other Platonists, and especially Henry More, the Platonist and Cabalist, who in the year 1648 exchanged correspondence with Descartes himself (printed in vol. xi. of Cousin's edition of Descartes), in which, among other things, he affirmed, in opposition to Descartes, the conception of immaterial extension as applying to God and souls, and combated Descartes's purely mechanical doctrine of nature. The theologically orthodox, but philosophically skeptical bishop Huet (1630–1721) wrote a *Censura philosophiæ Cartesianæ* (Paris, 1689, etc.), which called forth several replies from Cartesians; also (anonymously) *Nouveaux Mémoires pour servir à l'histoire du Cartésianisme* (Paris, 1692, etc.). The skeptic, Pierre Bayle (1647–1706; *Diction*, see above, Vol. I. § 4, p. 8; *Œuvres Diverses*, The Hague, 1725–31), also, though not unfavorable to the Cartesian philosophy, yet directed against it, as against all dogmatism, his skeptical arguments. He asserted of human reason in general, what was true of his own in particular, that it was powerful in the discovery of errors, but weak in positive knowledge. He made use of the early Protestant principle of the contradiction between reason and faith, to show up various absurdities in the orthodox system of faith.

The Cartesian Dualism co-ordinated mind and body as two wholly heterogeneous substances. It denied to the soul the vegetative functions ascribed to it by Aristotle, assigning them to the body, and especially to the vital spirits (*spiritus vitales*) supposed to pervade the body. On the other hand, it denied to matter all internal states. In this manner the active relation actually subsisting between psychical and somatic processes was made incomprehensible. A natural influence (*influxus physicus*) of the body on the soul and of the soul on the body could not consistently be assumed even upon the hypothesis of divine assistance. No explanation remained possible, except such as was derivable from the theory of divine agency, or the theory that on the occasion of the bodily change, God calls forth the corresponding idea in the soul, and that on the occasion of our willing, God moves the body in accordance with our will (doctrine of Occasionalism). This consequence of Cartesianism, which was partially perceived by Clauberg, Louis de la Forge, and Cordemoy, was expressly and theoretically enounced by Arn. Geulinx (1625–69) and Nic. Malebranche (1638–1715; Father of the Oratory); the latter teaches, that we see all things in God, who is the place of spirits, through participation in his knowledge. This sort of divine agency was, indeed, itself absolutely incomprehensible; but *this* incomprehensibleness gave no offence to these philosophers. Spinoza, on the contrary, being unable to admit such a doctrine, undertook to replace the dualism of soul and body, as also that of God and the world, by the doctrine of the unity of substance (monism). Leibnitz, again, in his theory of monads, sought to avoid the extremes of dualism and monism, by

recognizing the harmonious gradation of substances. In Leibnitz culminates the series of dogmatic philosophers, who aimed at the union of religious convictions with the scientific results of modern investigation. To this series Spinoza, in view of the theological character of his monistic doctrine, derived by deduction from the conception of substance, undoubtedly belongs.

§ 115. Baruch Despinoza (Benedictus de Spinoza) was born at Amsterdam in 1632, and died at the Hague in 1677. Unsatisfied by his Talmudic education, he turned his attention to the philosophy of Descartes, but transformed the Cartesian dualism into a pantheism, whose fundamental conception was the unity of substance. By substance Spinoza understands that which is in itself and is to be conceived by itself. There is only one substance, and that is God. This substance has two fundamental qualities or attributes cognizable by us, namely, thought and extension; there is no extended substance as distinct from thinking substance. Among the unessential, changing forms or modes of these attributes is included individual existence. Such existence does not belong to God, since, were it otherwise, he would be finite, and not absolute; all determination is negation. God is the immanent cause (a cause not passing out of itself) of the totality of finite things or the world. God works according to the inner necessity of his nature; in this consists his freedom. God produces all finite effects only indirectly, through finite causes; there is no such thing as a direct working of God in view of ends, nor as human freedom independent of causality. It can only be said that one mode of extension works upon another mode of extension, and one mode of thought on another mode of thought. Between thought and extension, on the contrary, there exists, not a causal nexus, but a perfect agreement. The order and connection of thought is identical with the order and connection of things, each thought being in all cases only the idea of the corresponding mode of extension. Human ideas vary in clearness and value from the confused representations of the imagination to the adequate knowledge of the intellect, which conceives all that is particular from the point of view of the whole which contains it, and comprehends all things under the form of eternity (*sub specie æternitatis*), not as accidental, but as necessary. From confused mental representations, which cannot rise above the finite, arise passions and the bondage of the will, while intellectual knowledge gives rise to intellectual love to God, in which our happiness and our freedom consist. Beatitude is not a reward of virtue, but virtue itself.

Of the works of Spinoza the earliest was his exposition, according to the geometrical method, of the Cartesian doctrines. The work had its origin partly in the oral instruction which Spinoza had occasion to give to a private pupil, and was entitled: *Renati des Cartes Principiorum philosophiæ pars I. et II., more geometrico demonstratæ, per Benedictum de Spinoza Amstelodamensem, accesserunt ejusdem Cogitata metaphysica, in quibus difficiliores quæ tam in parte Metaphysices generali quam speciali occurrunt, quæstiones breviter explicantur, Amstelodami apud Johannem Rieuwertsz*, 1663. Next appeared his *Tractatus theologico-politicus, continens dissertationes aliquot, quibus ostenditur libertatem philosophandi non tantum salva pietate et reipublicæ pace posse concedi, sed eandem nisi cum pace reipublicæ ipsaque pietate tolli non posse*, with the following motto from I. John: *per hoc cognoscimus quod in Deo manemus et Deus manet in nobis, quod de spiritu suo dedit nobis. Hamburgi apud Henricum Künrath* (*Amst., Christoph Conrad*), 1670. (There exists a second impression, of the same year, nominally published also at Hamburg "*apud Henr. Künrath*," in which the errata indicated upon the last page of the first impression are for the most part corrected, but which contains some new mistakes—some of them obscuring the sense. This work is printed in Paulus' edition from a third edition, which Paulus appears to have supposed to be the first; in this edition the Hebrew text of passages cited from the Bible is omitted.) The same *Tractatus theologico-politicus*, having been interdicted, was in 1673 twice printed at Amsterdam and once at Leyden with false titles, and again, *sine loco*, 1674, with the name *Tractatus theologico-politicus*, together with a reprint of the following work, written by Spinoza's friend, Ludwig Meyer, the physician, and first published at "*Eleutheropolis*" (Amst.), 1666: *Philosophia Scripturæ Interpres*. Spinoza's marginal notes to the *Tractatus theologico-politicus* have been frequently published, a part of them having been given in the French translation of this *Tractatus* by St. Glain (1678), and the rest by Christoph Theophil de Murr (The Hague, 1802) and others. In a copy presented by Spinoza to Clefmann, and now at Königsberg, are contained notes, which Dorow has edited (Berlin, 1835). These notes do not vary essentially from those already published. The *Ethics*, Spinoza's chief philosophical work, appeared in print first after his death, together with some shorter treatises, with the title: *B. d. S. Opera posthuma*, Amst., 1677. (Contents: *Præfatio*, written in Dutch by Jarrig Jellis, the Mennonite, and translated into Latin by Ludwig Meyer.—*Ethica, ordine geometrico demonstrata, et in quinque partes distincta, in quibus agitur I. de Deo, II. de natura et origine mentis, III. de origine et natura affectuum, IV. de servitute humana seu de affectuum viribus, V. de potentia intellectus seu de libertate humana.—Tractatus politicus, in quo demonstratur, quomodo societas, ubi imperium monarchicum locum habet, sicut et ea, ubi Optimi imperant, debet institui, ne in tyrannidem labatur, et ut pax libertasque civium inviolata maneat.—Tractatus de intellectus emendatione, et de via, qua optime in veram rerum cognitionem dirigitur.—Epistolæ doctorum quorundam virorum ad B. d. S. et auctoris responsiones, ad aliorum ejus operum elucidationem non parum facientes.—Compendium grammaticæ linguæ Hebrææ.*) A complete edition of the Works was edited by Paulus: *Benedicti de Spinoza opera quæ supersunt omnia, iterum edenda curavit, præfationes, vitam auctoris nec non notitias, quæ ad historiam scriptorum pertinent, addidit Henr. Eberh. Gottlob Paulus*, Jena, 1802–3. Later editions are: *Benedicti de Spinoza opera philosophica omnia edidit et præfationem adjecit A. Gfrörer*, Stuttgard, 1830. *Renati des Cartes et Benedicti de Spinoza præcipua opera philosophica recognovit, notitias historico-philosophicas adjecit Carolus Riedel*, Leipsic, 1843 (*Cartesii Medit., Spinozæ diss. philos., Spinozæ Eth.*). *Benedicti de Spinoza opera quæ supersunt omnia ex editionibus princ. denuo ed. et præfatus est Carol. Herm. Bruder*, Leips., 1843–46. Newly discovered writings of Spinoza have been published by Böhmer and Vloten: *Benedicti de Spinoza tractatus de Deo et homine ejusque felicitate lineamenta atque adnotationes ad tractatum theologico-politicum ed. et illustr. Ed. Boehmer*, Halle, 1852, and *Ad Benedicti de Spinoza opera quæ supersunt omnia supplementum, contin. tractatum huc usque de Deo et homine, tractatulum de iride, epistolas nonnullas ineditas et ad eas vitamque philosophi Collectanea (ed. J. van Vloten)*, Amst., 1862. Cf. on these works, Heinr. Ritter, in *Gött. gel. Anz.*, 1862, No. 47; Christoph Sigwart, *Sp.'s neuentdeckter Tractat von Gott, dem Menschen und dessen Glückseligkeit, erläutert und in seiner Bedeutung für das Verständniss des Spinozismus untersucht*, Gotha, 1866; Trendelenburg, *Ueber die aufgefundenen Ergänzungen zu Spinoza's Werken und deren Ertrag für Sp.'s Leben und Lehre*, in Vol. III. of Trendelenburg's *Hist. Beitr. zur Philos.*, Berlin, 1867, pp. 277–398; Richard Avenarius, *Ueber die beiden ersten Phasen des Sp.'schen Pantheismus* (see below). The *Tractatus de Deo et homine ejusque felicitate* was not discovered in the Latin original, but in a Dutch translation (*Korte Verhandeling van God, de Mensch, en desselfs Welstand*). Van Vloten has published this work in Dutch (in the above-mentioned *Supplementum*) from a more recent MS., and Schaarschmidt (Amsterdam, 1869) from an earlier one; S. adds a preface "*de Sp. philos. fontibus.*" This Tractate, translated into German by Schaarschmidt, is published in Kirchmann's *Philos. Bibliothek*, Vol. XVIII., Berlin, 1869. At the same time with this translation by Schaarschmidt, appeared the following: Christoph Sigwart, *Benedict de Spinoza's kurzer Tractat von Gott, dem Menschen und dessen Glückseligkeit, auf Grund einer von Dr. Antonius van der Linde vorgenommenen Vergleichung der Handschriften in's Deutsche übersetzt, mit einer Einleitung, kritischen und sächlichen Erläuterungen begleitet*, Tübingen, 1870. The posthumous works were translated into Dutch (by Jarrig Jellis) in 1677. A translation of the *Tractatus theologico-politicus*, made in

Spinoza's lifetime, but, in accordance with his wish, not then made public, was afterwards published under the title: *De rechtzinnige Theologant, Hamburg by Henricus Koenraad* (Amsterdam), 1693. A French translation of the *Tractatus theol.-pol.* (probably by St. Glain) was published under various disguising titles in 1678; in modern times Emile Saisset has translated the works of Spinoza into French (*Œuvres de Spinoza*, Par. 1842); a new edition of this translation appeared at Paris in 1861 (and of the *Introduction Critique*, which accompanied it, at Paris in 1860). The *Tractatus politicus* (to be distinguished from the *Tract. theol.-polit.*) has been translated into French by J. G. Prat: *Traité politique de B. de Spinoza*, Paris, 1860. *Œuvres Complètes, traduites et annotées par* J. G. Prat, Paris, 1863 seq. The *Ethics* of Spinoza, translated into German, was published, together with Chr. Wolf's refutation, at Frankfort and Leipsic in 1744. His treatises on the Cultivation of the Human Understanding, and on Aristocracy and Democracy, were translated [into German] by S. H. Ewald (Leipsic, 1785), as also were his "Philosophical Writings:" Vol. I.: *B. v. S. über h. Schrift, Judenthum, Recht der höchsten Gewalt in geistlichen Dingen und Freiheit zu philosophiren* (*Tract. Theol.-Polit.*), Gera, 1787; Vols. II. and III.: *Sp.'s Ethik*, Gera, 1791–93. The *Tract. theol.-polit.* has also been translated into German by C. Ph. Conz, Stuttg., 1806, and J. A. Kalb, Munich, 1826, the *Ethics* by F. W. V. Schmidt, Berlin, 1812, and recently by v. Kirchmann, *Philos. Bibl.*, Vol. IV., Berlin, 1868, and the complete works by Berthold Auerbach, 5 vols., Stuttgard, 1841. [An English anonymus translation of the *Tract. Theol.-Polit.* appeared in the year 1689. A new one was published—also anonymously—London, 1862 (?), 2d ed., 1868. On the latter cf. Matthew Arnold, *A Word more about Spinoza*, in *MacMillan's Magazine*, Vol. 9, pp. 136–148. *Benedictus de Spinoza; His Ethics, Life, and Influence on Modern Religious Thought, by R. Willis, M.D.*, London (Trübner), 1870 (?). Spinoza's *Letter Expostulatory to a Convert, ibid.*—*Tr.*]

The principal source of our knowledge of the life of Spinoza is, next to Spinoza's own works and letters, the Biography written by a Lutheran pastor, Johannes Colerus, which appeared in Dutch in 1705, in French at The Hague in 1706 and 1733 (also in the *Opera, Ed.* Paulus), in German at Frankf. and Leipsic in 1733, and translated by Kahler, 1734. Less trustworthy are the statements in *La Vie et l'Esprit de Mr. Benoît de Spinosa* (Amst.) 1719 (by Lucas, a physician at The Hague; new ed. of the first part: *La Vie de Spinosa, par un de ses disciples*, Hamb., 1735), as also those in Christian Kortholt's *De Tribus Impostoribus Magnis* (Herbert of Cherbury, Hobbes, and Spinoza), Hamburg, 1700. Still earlier (1696) Bayle's *Dictionary* had contained some notices respecting Spinoza's life, which appeared in a Dutch translation with additional essays at Utrecht, 1698 (with new title-page, 1711). The biography by Colerus, together with notices from a *Vie de Spinosa* written by a friend of Spinoza (Lucas), were included in the volume entitled *Réfutation des Erreurs de Benoît de Spinosa par Mr. de Fénélon, par le P. Lami Benedictin et par le Comte Boullainvilliers*, Brussels, 1731. H. F. v. Dietz, *Ben. von Spinoza nach Leben und Lehren*, Dessau and Leipsic, 1783. M. Philipson, *Leben B.'s von Spinosa*, Leipz., 1790.

Of the later works on Spinoza's life and works, the *Histoire de la vie et des ouvrages de B. de Spinosa, fondateur de l'exégèse et de la philosophie modernes, par Armand Saintes* (Paris, 1842), should be specially mentioned. The scanty accounts transmitted to us respecting Spinoza's life, Berthold Auerbach has sought to supplement and complete artistically, in "*Spinoza, ein historischer Roman*," Stuttgard, 1837; second revised and stereotyped edition: *Spinoza, ein Denkerleben*, Mannheim, 1855, and in the collected writings, Stuttgard, 1863, 1864, Vols. 10 and 11 (a work full of profound poetic truth in the parts which portray the order of Spinoza's intellectual development). Conr. von Orelli, *Spinoza's Leben und Lehre*, 2d ed., Aarau, 1850. A counterpart to the eulogistic accounts of Spinoza is found in the Introduction of Antonius van der Linde to his work: *Spinoza, seine Lehre und deren erste Nachwirkungen in Holland*, Göttingen, 1862; the author not only shows himself disinclined to all poetic idealization of the retired life of Spinoza, but judges disparagingly concerning the life and doctrine of the philosopher. The following work is valuable on account of newly discovered material employed in it: J. van Vloten, *Baruch d'Espinoza, zyn leven en schriften*, Amst., 1862. Cf. Ed. Böhmer, *Spinozana*, in *Zeitschr. f. Philos.*, Vol. 36, 1860, pp. 121–166, *ib.* Vol. 42, 1863, pp. 76–121; Ant. v. d. Linde, *zur Litt. des Spinozismus, ib.* Vol. 45, 1864, pp. 301–305. J. B. Lehmans, *Sp., sein Lebensbild und seine Philosophie* (Inaug. Diss.), Würzburg, 1864. An historical "character-picture," drawn with a loving hand, is furnished by Kuno Fischer in *Baruch Spinoza's Leben und Charakter, ein Vortrag*, Mannheim, 1865, and in Fischer's *Geschichte der neueren Philosophie*, 1st ed., 1854, Vol. I. p. 235 seq.; 2d ed., Vol. I. Part 2d, 1865, pp. 93–138.

Immediately after its publication, the doctrine of Spinoza was combated in various works. Jacob Vateler, the Remonstrant [Arminian] preacher at the Hague, composed against the *Tractatus Theol.-Polit.* the work: *Vindiciæ miraculorum, per quæ divina religionis et fidei Christianæ veritas olim confirmata fuit, adversus profanum auctorem tractatus theol.-polit. B. Spinosam* (Amst., 1674). Johannes Bredenborg wrote an *Enervatio tractatus theol.-pol., una cum demonstratione geometrico ordine disposita, naturam non esse Deum*, Rotterdam, 1675. The *Arcana atheismi revelata, philosophice et parodoxe refuta examine tract. theol.-pol. per Franciscum Cuperum Amstelodamensem* (Rotterdam, 1676), is based on Socinian ideas and asserts the complete agreement between the Bible and reason. But the revolutionary ideas of *Tract. Theolog.-Polit.* in historical criticism also acquired an early positive influence over the Scriptural investigations of Christian

theologians, as is evidenced in the writings of Richard Simon, a Catholic, especially in his *Histoire critique du Vieux Testament*, Paris, 1678. Among the early opponents of Spinozism were also Poiret, the Mystic (*Fundamenta atheismi eversa*, in his *Cogit. de Deo, anima et malo*, Amst., 1677, etc.), and Bayle, the Skeptic. Christoph Wittich, the Cartesian, wrote against the Ethics in *Anti-Spinoza, sive examen Ethices Ben. de Spinoza*, Amst., 1690. By some (such as Aubert de Versé, in *L'Impie Convaincu*, Amst., 1681, 1685) Cartesianism was combated, at the same time with Spinozism, as the source of the latter; others, on the contrary (like Ruardus Andala, in a work published at Franeker in 1717), published works in which Descartes was honored as "*verus Spinozismi evertor*." On Spinoza's doctrine is founded the work—published anonymously—of Abraham Johann Cuffelaer (or Cuffeler): *Specimen artis ratiocinandi naturalis et artificialis, ad pantosophiæ principia manuducens. Hamburgi apud Henr. Kunrath* (Amst.), 1684, and *Principiorum pantosophiæ p. II., III., ib.*, 1684. That the doctrines contained in the *Ethics* of Spinoza agree with those of the Cabala, is what Johann Georg Wachter sought to demonstrate first in the work: *Der Spinozismus im Judenthum oder die von dem heutigen Judenthum und dessen geheimer Cabbala vergötterte Welt, von Mose Germano, sonsten Joh. Peter Speeth, von Augsburg gebürtig, befunden und widerlegt von J. G. Wachter*, Amsterdam, 1699; the argument was followed up in Wachter's subsequent work: *Elucidarius Cabbalisticus*, Rome, 1706. Leibnitz wrote in reply to this latter work *Animadversiones ad J. G. Wachteri librum de recondita Hebræorum philosophia* (a critique of Spinozistic doctrines from the stand-point of the Leibnitzian Monadology); these *Animadversiones* remained unprinted until their discovery, a few years since, in the Archives of the R. Library at Hannover by A. Foucher de Careil, who published them under the title: *Réfutation inédite de Spinoza par Leibniz*, Paris, 1854. (Cf. Leibnitz, *Théodicée*, II., §§ 173, 188, and III., §§ 372, 373.) Christian Wolf argued against Spinozism in one part of his *Theologia Naturalis* (*Pars poster.*, §§ 672–716); this argument, translated into German, was published, together with Spinoza's Ethics, at Frankf. and Leipsic, in 1744. The system of Spinoza, and Bayle's objections to the same, are discussed by De Jariges in the *Histoire de l'Académie Royale des Sciences et Belles Lettres de Berlin, année* 1745, Vols. I. and II. (translated into German, in Hissman's *Magazin für die Philos. und ihre Geschichte*, Vol. V., Göttingen and Lemgo, 1782, pp. 3–72). In Germany attention was directed to Spinozism, especially by the controversy between Jacobi and Mendelssohn as to Lessing's relation to that doctrine. Fr. H. Jacobi, *Ueber die Lehre des Spinoza, in Briefen an Moses Mendelssohn*, Leipsic, 1785, 2d edit., Breslau, 1789; *Werke*, Vol. IV., *Abth.* 1. Moses Mendelssohn, *An die Freunde Lessings*, Berlin, 1786. F. H. Jacobi, *Wider Mendelssohns Beschuldigungen, betreffend die Briefe über die Lehre des Spinoza*, Leips., 1786. Cf. also Moses Mendelssohn, *Morgenstunden oder Vorlesungen über das Dasein Gottes*, Berlin, 1785, etc. *Werke*, Leipsic, 1843, Vol. II., p. 340 seq. Herder, *Gott, einige Gespräche über Spinoza's System, nebst Shaftesbury's Naturhymnus*, Gotha, 1787, 2d edit., 1800; in Cotta's complete edition, Vol. XXXI., 1853, pp. 73–218 (an attempt to interpret Spinozism, not with Jacobi as a form of pantheism or atheism, but as a form of theism). Goethe, *Aus meinem Leben, Dichtung und Wahrheit*, Works, Pts. III. and IV. (cf. Wilh. Danzel, *Ueber Göthe's Spinozismus*, Hamburg, 1843, Karl Heyder, *Ueber das Verhältniss Göthe's zu Spinoza*, in the *Zeitschrift f. d. gesammte luth. Theol. u. Kirche*, founded by Rudelbach, Leips., 1866, pp. 261–283, and E. Caro, *La Philosophie de Goethe*, Paris, 1866). G. S. Francke, *Ueber die neueren Schicksale des Spinozismus und seinen Einfluss auf die Philosophie überhaupt und die Vernunftheologie insbesondere*, Prize Essay, Schleswig, 1808, 1812. The influence of the philosophy of Descartes on the development of Spinoza's philosophy has been discussed by Heinr. Ritter (*Welchen Einfluss hat d. Philos. des Cartesius auf d. Ausbildung der des Spinoza gehabt*, etc. Leips. and Altenburg, 1817), and the connection of Spinozism with the Cartesian philosophy, by H. C. W. Sigwart (*Ueber den Zusammenhang des Spinozismus mit der Cartesian. Philos.*, Tübing., 1816); cf. Sigwart's *Beiträge zur Erläuterung des Spinozismus*, Tüb., 1838; *Der Spin. historisch und philosophisch erläutert*, Tüb., 1839; and *Vergleichung der Rechts- und Staatstheorie des B. Spinoza und des Th. Hobbes*, Tüb., 1842. Lud. Boumann, *Explic. Spinozismi, diss. Berol.*, 1828. Car. Rosenkranz, *De Sp. Philosophia*, Halle and Leips., 1828. C. B. Schlüter, *Die Lehre des Spinosa in ihren Haupt-Momenten geprüft und dargestellt*, Münster, 1836. Karl Thomas, *Spinoza als Metaphysiker*, Königsberg, 1840 (brings into prominence the nominalistic and individualistic elements which are indeed contained in Spinoza's doctrine, but only incidentally and in relative subordination to the predominant pantheistic Monism of that doctrine). J. A. Voigtländer, *Spinoza nicht Pantheist, sondern Theist*, in the *Theol. Stud. u. Krütiken*, 1841, No. 3. Franz Baader, *Ueber eine Nothwendigkeit der Revision der Wissenschaft in Bezug auf Spinozistische Systeme*, Erlangen, 1841. B. Saisset, *Maimonide et Sp.*, in the *Revue des deux mondes*, 37, 1862, pp. 296–334. Cf. also the chapters on Spinozism in Bouillier, *Hist. de la philosophie Cartésienne*, and in Damiron, *Hist. de la philosophie du XVII. siècle*. Ad. Helfferich, *Spinoza und Leibnitz oder das Wesen des Idealismus und des Realismus*, Hamburg and Gotha, 1846. Franz Keller, *Spinoza und Leibnitz über die Freiheit des menschlichen Willens*, Erlangen, 1847. J. E. Erdmann, *Die Grundbegriffe des Spinozismus*, in his *Verm. Aufs.*, Leips., 1848, pp. 118–192. C. Schaarschmidt, *Des Cartes und Spinoza, urkundliche Darstellung der Philosophie Beider, nebst einer Abhandlung von Jac. Bernays über Spinoza's hebräische Grammatik*, Bonn, 1850. C. H(eble)r, *Spinoza's Lehre vom Verhältniss der Substanz zu ihren Bestandtheilen*, Bern, 1850; Hebler, *Lessing-Studien*, Bern, 1862, p. 116 seq. R. Zimmermann, *Ueber einige*

logische Fehler der spinozistischen Ethik, reprinted from the *Sitzungsberichte der philos.-hist. Cl. der kais. Akad. d. Wiss.*, for October, 1850, and April, 1851. J. E. Horn, *Spinoza's Staatslehre*, Dessau, 1851. Adolf Trendelenburg, *Ueber Spinoza's Grundgedanken und dessen Erfolg*, from the Transac. of the R. Acad. of Sciences, Berlin, 1850, reprinted in Vol. II. of T.'s *Hist. Beiträge zur Philosophie*, Berlin, 1855, pp. 31–111; cf. T.'s essay *Ueber den letzten Unterschied der philos. Systeme*, in the *Abhandlungen der k. Akad. d. Wiss. philos.-hist. Cl.*, 1847, p. 249 seq., and in the *Hist. Beiträge*, II., 1–30;* also *Ueber die aufgefundenen Ergänzungen*, etc. (see above, p. 56). Alphons v. Raesfeld, *Symbola ad penitiorem notitiam doctrinæ, quam Sp. de substantia propos., diss. Bonn.*, 1858. Theod. Hub. Weber, *Sp. atque Leibnitii philos., comm. Bonn.*, 1858. F. E. Bader, *B. de Sp. de rebus singularibus doctrina*, Berl., 1858. Joh Heinr. Löwe, *Ueber den Gottesbegriff Spinoza's und dessen Schicksale* (as a supplement to Löwe's work on the philosophy of Fichte), Stuttgard, 1862).† *Spinoza et la Kabbale, par le rabbin Elie Benamozegh*, Paris, 1864 (*Extrait de l'Univers israélite*) cf. on this essay T. Isaac Mises, in the *Zeitschrift für exacte Philos.*, Vol. VIII., 1869, pp. 359–367. N. A. Forsberg, *Jemförande Betraktelse of Spinoza's och Malebranche's metafysiska princip., Akad. Afhandl.*, Upsala, 1864. P. Kramer, *De doctr. Sp. de mente humana* (*Diss. Inaug.*), Halle, 1865. Chr. A. Thile, *Ueber Sp.'s Religionsphilosophie*, in the *Zeitschr. für exacte Philosophie*, Vol. VI., No. 2, Leipsic, 1865, pp. 113–145; VI., 4, 1866, 389–409; VII., I., 1866, 60–99. A. v. Oettingen, *Sp.'s Ethik und der moderne Materialismus*, in the *Dorpater Zeitschr. für Theol. u. Kirche*, Vol. VII., No. 3. Nourrisson, *Sp. et le naturalisme contemporain*, Paris, 1866. M. Joel, *Don Chasdai Creska's religionsphilos. Lehren in ihrem geschichtlichen Einflusse dargestellt.* (In Joel's work, among other things, certain points of contact between Spinoza and this Talmudist, named in the title,—who is mentioned by Sp. in *Epist.* 29 *pr. fin.*, lived about A.D. 1400, and who belonged to the period and school of the Nominalists,—are brought to light, although they are, according to Sigwart's judgment, of no very deep significance). Paul Janet, *Sp. et le Spinozisme d'après les travaux recens*, in the *Revue des deux mondes*, Vol. 70, 1867, pp. 470–498. Carl Siegfried, *Sp. als Kritiker und Ausleger des alten Testaments* (*Tortenser Programm*), Naumburg, 1867. Waldemar Hayduck, *De Sp. natura naturante et natura naturata* (*Diss. inaug.*), Breslau, 1867. Moritz Dessauer, *Spinoza und Hobbes* (*Inaug. Diss.*), Breslau, 1868. Richard Avenarius, *Ueber die beiden ersten Phasen des Spin. Pantheismus und das Verhältniss der zweiten zur dritten Phase, nebst einem Anhang über Reihenfolge und Abfassungszeit der älteren Schriften Spinoza's*, Leipsic, 1868. (Avenarius considers it probable that the dialogues contained in the *Tractatus de Deo et homine* were already written about 1651, and that this *Tractatus* itself was written in 1654–55, the *Tractatus de intellectus emendatione* in 1655–56, and the *Tractatus theologico-politicus* in 1657–61. Avenarius assumes, in agreement with Sigwart, that the Synthetic Appendix to the *Tractatus de Deo et homine* was written in the year 1661. The "phases," which he distinguishes in the history of Sp.'s doctrine, are termed by him "the naturalistic, the theistic, and the pantheistic.") P. Schmidt, *Sp. und Schleiermacher*, Berlin, 1868. F. Urtel, *Sp. de voluntate doctrina*, Halle, 1868. J. H. von Kirchmann, *Erläuterungen zu Sp.'s Ethik* (as supplement to the translation of the *Ethics*—a criticism of the Ethics from Von Kirchmann's realistic stand-point), in the *Philos. Bibl.*, Vol. V., Berlin, 1869. Jos. Hartwig, *Ueber das Verhältniss des Spinozismus zur Cartesianischen Doctrin* (*Inaug.-Dissert.*), Breslau, 1869. The works or articles on

* "Either force is anterior to efficient cause and is the superior of thought, or thought is anterior to force and is its superior, or, finally, thought and force are at bottom the same;—with Spinoza the distinction between thought and blind force assumes the form of the distinction between thought and extension, *cogitatio et extensio*; he includes both in one, giving to neither of them the precedence before the other,"—so Trendelenburg expresses the fundamental conception of Spinoza. It is, however, very questionable whether the interpretation of Spinoza's doctrine as an identification of extension and "blind force" is correct, and whether we are not rather required by Spinoza to distinguish within the sphere of *cogitatio* itself not only "blind" force, but also higher, conscious, and, in its highest form, spiritual force, as constituting respectively the lower and higher degrees of psychical endowment (cf. Eth. II., Prop. 13: "*omnia, quamvis diversis gradibus, animata sunt*"), with which correspond, in the sphere of extension, form and motion, in their elementary and their more complicated forms (the latter especially in the brain). It is not true that "where thought cannot work upon extension and direct it, in view of a preconceived effect, design is impossible;" it is not "on extension" that thought works, but on the force subordinate to thought, and the motion belonging to thought works upon the motion which corresponds to that force; the *Intellectus infinitus* precedes and determines the finite intellect, and the latter precedes and determines the lower conscious and unconscious forces in the world in general and in the moral world in particular, and in this sense man—but not, indeed, God, who as the infinite substance cannot be a person—has power to work in view of ends.

† Löwe seeks, by emphasizing the difference between "*cogitatio*," as an impersonal attribute of substance, and the "*infinitus intellectus Dei*," as an immediate effect of the substance, to justify the attribution to this infinite intellect of an absolute self-consciousness, a personal unity, and so to reduce the distance between the Spinozistic and theistic conceptions of God. On the same question cf., among others, Ed. Böhmer, *Spinozana* III., in *Z. f. Ph.*, Vol. 42, 1863, p. 92 seq., and Lehmans,—see above—pp. 120–125.

newly discovered additions to Sp.'s works have already been mentioned (p. 56) along with the list of Sp.'s works. Cf. the judgments expressed concerning Spinoza in the works of Schleiermacher, J. G. Fichte, Schelling, Baader, Hegel, Herbart, and other philosophers; further, the presentation and critique of his doctrine in the histories of (modern) philosophy by Brucker, Buhle, Tennemann, Ritter, Feuerbach, Erdmann, Kuno Fischer, and others, and also in special works on the history of Pantheism—e. g. in Buhle, *De ortu et progressu pantheismi inde a Xenophane usque ad Spinozam*, in *Comm. soc. sc. Gott.*, Vol. X., 1791, Jäsche, *Der Pantheismus nach seinen verschiedenen Hauptformen*, Berlin, 1826–32 (cf. Heinr. Ritter, *Die Halbkantianer und der Pantheismus*, Berlin, 1827), J. Volkmuth, *Der dreieinige Pantheismus von Thales bis Hegel* (Zeno, Spinoza, Schelling), Cologne, 1837, in the works and articles devoted to the critique of philosophical stand-points by I. Herm. Fichte, Ulrici, Sengler, Weisse, Hanne, and others, and in many other works on religious philosophy.

Baruch Despinoza, born at Amsterdam on the 24th of November, 1632, was descended from one of the Jewish families, who, in order to avoid the persecutions directed against them in Spain and Portugal, had emigrated to the Netherlands. He received his first training under the celebrated Talmudist, Saul Levi Morteira, and became acquainted, among other works, with those of Maimonides, of whom he had a high opinion, and with cabalistic works, of which, however, he speaks rarely and always disparagingly. On the 6th of August, 1656, he was fully expelled from the Jewish communion, on account of his "frightful heresies." Before this time he had been instructed in Latin by Franz van den Ende (not by the daughter of the latter, who, in the year 1656, was only twelve years old), a learned physician, of naturalistic sympathies. From 1656 to 1660 or 1661, Spinoza resided in the vicinity of Amsterdam, in the family of an Arminian friend, being occupied with the study of the Cartesian and the development of his own philosophy. He lived next at Rhynsburg, the headquarters of the sect of Collegiants (who regarded the dogmatic element in religion as inferior in importance to the edifying and the moral), then, from 1664 to 1669, at Voorburg, near the Hague; then at the Hague, where he boarded first with the widow Van Velden, and afterwards, from 1671 till his death, which occurred on the 21st of February, 1677, with Van der Spyck, the painter. He supported himself by grinding lenses. He declined, in the year 1673, a call to Heidelberg—where Ludwig, the Elector Palatine, offered him a professorship of philosophy—that the liberty of philosophizing, which he enjoyed as a private man, and which, indeed, was promised him for the future in the letter calling him to Heidelberg, might not be prejudiced by unavoidable collisions with critics and opponents.

In the *Compendium grammatices linguæ Hebrææ* the predilection of the teacher of the doctrine of substance for the Substantive has been remarked. Cf. especially the article by Jac. Bernays, in the Supplement to Schaarschmidt's work, Bonn, 1850 (cited above, p. 58), and Ad. Chajes, *Die hebr. Gramm. Sp. S.*, Breslau, 1869.

In the *Principles of the Philosophy of Descartes*, together with the annexed *Cogitata Metaphysica*, written in the winter of 1662–63, Spinoza does not expose his own doctrine, as he expressly affirms in the preface (through the editor, his friend Ludwig Meyer); at the time of writing the work he had already arrived substantially at the doctrines developed in his later works.

The plan of the *Tractatus Theologico-Politicus* was conceived at an early date, and executed between the years 1665–70. The work is an eloquent defence of liberty of thought and speech in matters of religion ("*quando quidem religio non tam in actionibus externis, quam in animi simplicitate ac veritate consistit, nullius juris neque auctoritatis publicæ est*"), and contains the fruits of Spinoza's personal experience. The fundamental idea in it is that of the essential difference of the missions of positive religion and philosophy. Neither of them should serve (*ancillari*) the other; each has its peculiar office. In the development of his own thoughts Spinoza appears to have been guided by his study of Maimonides, and yet not to have followed the latter uncritically. For while the earlier philosopher, with a view to the excitation of philosophic thought, had taught that the law was given to the Jews not merely to train them to obedience, but also as a revelation of the highest truths, Spinoza—at a time when the interest in philosophic thought was fully assured, and when the latter needed, therefore, to be freed from a subordination to religious dogma, which could only have been temporarily advantageous to it—taught, on the contrary, that the end of religion is not the cognition of truth as such, but obedience. This is the idea which underlies the *Tractatus Theol.-Polit.* (Thus, later, and from a like motive, Moses Mendelssohn claimed for Judaism freedom from binding dogmas, and so Schleiermacher treated religion and philosophy as separate and co-ordinate, the former having its basis in feeling, while the latter was the outcome of the endeavor to acquire objectively valid knowledge.) Spinoza affirms accordingly, in opposition to Maimonides, that the Bible is not to be interpreted so as to agree with human reason, nor is reason to be made subject to the teaching of the Bible; the Bible pretends not to reveal natural laws, but to exhibit laws of ethics. By the adoption of this principle he makes it possible for him to treat of the Bible, and especially the Old Testament, historically and critically, unhampered by dogmatic conditions, and this he proceeds to do in detail. A noticeable feature of the work is the pre-eminence which is ascribed (ch. 1) to Christ over Moses and the prophets, from the fact that he did not receive the revelation of God through the hearing of words (like Moses), nor through visions, but discovered it immediately present in his own consciousness; in this sense, says Spinoza, it is true that the divine wisdom took on human nature. The philosophical system of Spinoza is but partially suggested, and not developed, in the *Tractatus Theologico-Politicus*. The seventh chapter of the work treats of the interpretation of Scripture. In it Spinoza adopts, on the one hand, the views of a number of Jewish scholars, some of whom, like Abraham Ebn-Esra (mentioned by Spinoza), and also Isaac Israeli (see above, vol. i., § 97), had doubted at least the authenticity of single passages in the Pentateuch; and, on the other, in his general exegetical stand-point, those of Hobbes's *Leviathan* (although in opposition to Hobbes he opposes energetically the doctrine of ecclesiastical absolutism). Spinoza agrees with Hobbes in the conviction that Scripture should be interpreted according to the same method by which nature must be comprehended. It is probable that Spinoza had already previously combated the Scriptural exegis of the Rabbis in his "*Apologia pro Spinozae a judaismo apostasia*" (written, it is likely, in the year 1656).

In the *Tractatus Politicus* (of later composition than the preceding), which gives evidence of familiarity with the doctrine of Hobbes, Spinoza nevertheless comes out in sharp opposition to the theory of civil absolutism. Governments are to bring the actions, but not the convictions of men into harmony. By doing violence to convictions, they provoke insurrection. Men from the people, but chosen by the government, should be associated with the government in legislation and administration.

The *Tractatus de Deo et homine ejusque felicitate*, which was written before 1661, and perhaps as early as 1654 or 1655, and is followed by a synthetic appendix, written in 1661, is a sketch of the System and an evident forerunner and herald of the *Ethics*. God's existence, it is here argued, belongs to his essence. Further, the idea of God also, which is in us, pre-supposes God as its cause. God is the most perfect being (*ens perfectissimum*). God is a being of whom infinite attributes are predicated, each of which is in its kind infinitely perfect. Every substance must (at least in its kind)

be infinitely perfect, because it can neither by itself nor by anything other than itself be determined to finiteness. There are not two substances equal to each other, since such substances would limit each other. One substance cannot produce another substance or be produced by it. Every substance, which is in God's infinite understanding, is also really in nature. In nature, however, there are not different substances; nature is one in essence and identical with God, as the latter is above defined.—Thus Spinoza in this treatise sets out, not with a definition of the conception of substance, in order thence to advance to the conception of God; but the idea that God is, and that he combines in himself all reality, is here already employed to prove the doctrine that there exists but one substance, and that thought and extension are not substances but attributes. Spinoza points to the fact that we see unity in nature, and that, in particular, in us thought and extension are united; but since thought and extension have by nature nothing in common, and each can be clearly conceived without the other (which Spinoza allows to Descartes), it follows that their actual union in us is only possible on condition that they are both attributes of the same substance. In addition to Spinoza's Jewish education, in consequence of which a religious conviction of the strict unity of God became firmly rooted in his nature, we may ascribe the genesis of his doctrine of the unity of substance in a very considerable degree to the particular zeal with which psychological speculations respecting the mutual relation between soul and body were in his time carried on in the Cartesian school, and more particularly to the unmistakable conflict of Occasionalism—the doctrine which resulted with necessity from the Cartesian principles, and which had been specially developed by Geulinx—with natural law. To these causes should be added, on the other hand, Spinoza's acquaintance with Neo-Platonic doctrines, whether through the Cabala or through the works of Giordano Bruno, or, what is most probable, through both. Spinoza, undertaking to translate the poetico-philosophical notions issuing from Neo-Platonism into scientific conceptions, blended them with the results of his critique of Cartesianism. The *Tractatus de Deo*, etc., represents a stadium in the history of Spinoza's philosophical development antecedent to the *Ethics* (see Sigwart, p. 131 seq.) Spinoza's study of the Cartesian philosophy falls within the period included between the composition of the two dialogues which are included in the *Tractatus de Deo*, etc., and of which at least the first rests on the doctrine of Giordano Bruno, and the composition of the *Tractatus* itself, and his study of the doctrine of Bacon falls within the time between the composition of the *Tractatus de Deo* and the *Tractatus de intellectus emendatione*. The most important of the differences between the *Tractatus de Deo* and the *Ethics* are, that in the former the conception of God as the most perfect being, but in the latter the conception of substance, as of that which is in and through itself, precedes, and that in the *Tractatus* an objective causal relation is assumed as connecting thought and extension, notwithstanding their alleged absolute unlikeness—an unlikeness so great that the conceptions of thought and extension are affirmed to have nothing in common—while in the Ethics it is asserted that the causal relation cannot exist between dissimilar things, and that therefore no such relation exists between thought and extension. The dialogues contained in the *Tractatus* are a development of the conception of nature regarded as infinite.

The *Tractatus de Intellectus Emendatione* (a fragment, written probably before 1661, and perhaps as early as 1655 or 1656) is a development of ideas concerning method, of which the fundamental features are contained in Spinoza's principal work, the *Ethics*. The goods of the world, we are here told, are unsatisfying; the knowledge of truth is the noblest good.

The *Ethics* was written in the years 1662–65, but appears to have been undergoing constant revision until the time of Spinoza's death. Spinoza in this work adopts as his point of departure the Cartesian definition of substance, the consequences of which are developed by him with greater logical consistency than they had been by Descartes. Descartes had defined substance, taken absolutely, as "that which so exists that it needs nothing else for its existence" (*res quæ ita existit, ut nulla alia re indigeat ad existendum*), while "created substance" was, according to him, "that which needs only the concourse of God for its existence" (*res, quæ solo Dei concursu eget ad existendum*). Spinoza defines substance (*Eth.*, p. I., def. 3) as "that which exists in itself and is conceived by itself, *i. e.*, the conception of which can be formed without the aid of the conception of anything else" (*per substantiam intelligo id, quod in se est et per se concipitur, hoc est id, cujus conceptus non indiget conceptu alterius rei, a quo formari debeat*). Descartes and Spinoza have alike neglected in their definitions of substance to separate the two categories, which Kant distinguishes as subsistence (of which the correlate is the inherence of predicates) and causality (whose correlate is the dependence of effects). The *οὐσία* (substance) of Aristotle is identified by them with the efficient cause of existence. But since God is recognized by both as the only cause of all that is (though not demonstrated by faultless arguments to be such), it follows at once, that he must be viewed by both as also the only substance. That Descartes admits the existence of substances which cannot be included under his definition of substance is an inconsequence which is avoided by Spinoza, who proclaims God as the only substance, and denies that anything which is not God is substantial. Let non-inherence and non-dependence be included in the definition of substance as among the essential marks of the latter, and yet it will by no means follow from this definition that that which is conditioned, even though it may not properly be called substantial, can only exist as inherent in something other than itself; it only follows, that another term is required to denote that which at once is the substratum of the inhering, and which yet, as conditioned, depends on something else. Without such another term the definition of substance must be so framed as not to confound the two essentially different relations: inherence and dependence; otherwise the supposed demonstration is a subreption.

Spinoza opens his Ethics with a number of definitions and axioms after the manner of Euclid, intending therefrom, by strictly syllogistic procedures, "in accordance with the method of geometry," to deduce the theorems of his system. By this means he expected to secure for his doctrine mathematical certainty. But the undertaking was illusory. Euclid's definitions are, indeed, given at the outset as merely nominal explanations of what is to be understood by the terms employed. But they are shown in the end to be real definitions, *i. e.*, definitions of real, mathematical objects. Spinoza, on the contrary, has not actually proved the reality of the subjects of his definitions. Euclid's definitions are clear and may be easily followed by the imagination—qualities which are almost entirely wanting in the definitions of Spinoza, or which, where figurative expressions are employed (like *in se esse*, etc.), are only simulated; some of the definitions of Spinoza (like that of *causa sui*, etc.) involve contradictions. Euclid employs his terms throughout only in the sense fixed upon in the definitions; Spinoza sometimes presents an argumentation, the first part of which is rendered plausible by the employment of expressions in their ordinary acceptation, while in the second part the same expressions are repeated in the senses given them by his (arbitrary) definitions, so that the conclusion is obtained through a paralogism, the *quaternio terminorum*, a "synthetic" definition being interchanged with an "analytical" (cf. my Sys-

tem of Logic, §§ 61 and 126). (Proofs of this will appear below, *e. g.*, in connection with the doctrines of substance and *causa sui* and of love.) Spinoza's *Ethics* is by no means (as, notably, F. H. Jacobi among others supposed) theoretically irrefutable, but rather (as Leibnitz, Herbart, and others have rightly judged) replete with paralogisms.*

The first Definition of Part I. of the Ethics is the following: "By that which is the cause of itself I understand that whose essence involves existence, or that, whose nature can only be conceived as existent" (*per causam sui intelligo id, cujus essentia involvit existentiam sive id, cujus natura non potest concipi nisi existens.*)†

The second Definition is: "That thing is said to be finite in its kind which can be limited by another of the same nature" (*Ea res dicitur in suo genere finita, quæ alia ejusdem naturæ terminari potest*). By way of illustration, Spinoza adds that a body is finite when it is possible to conceive another still larger; in like manner, a thought is finite when limited by another thought; but bodies are not limited by thoughts, nor thoughts by bodies.‡

* The exposure of the paralogisms involved in the fundamental positions is a necessary part of an exposition of Spinoza's system, for any one who would acquire a thorough insight into that system. But in order not to obscure the sequence of doctrines in the positive exposition of Spinoza's teachings, we shall offer our remarks upon the paralogisms contained in them in the following notes under the text. Spinoza's philosophical importance arises from the fundamental opinion maintained by him, that the psychical, taken in the widest sense (the mental, the animate, force), is substantially identical with the extended, which is perceived as material and follows the laws of mechanics; this Monism (like Dualism, Spiritualism, Materialism, Criticism) is one of the great and noteworthy philosophical hypotheses. So, too, the *tendency* towards rigid demonstration is worthy of attention and respect; but the idea that Spinoza has realized this tendency and has advanced real proofs of his doctrine is a mere prejudice, which deserves not to be respected, but to be swept away. False reasonings should be corrected by exposing their faults; this and nothing else is due to them. Whatever in Spinoza was genuinely great, has maintained itself against every assault, and attained to permanent influence in the historical development of philosophy; but veneration misses its end when it desires that the nimbus of the "holy, rejected Spinoza" should cover his blunders. To the "holy" in him (with Schleiermacher) an "offering of ringlets," but to his paralogisms, dissecting criticism; thus each will receive its dues.

† The conception of a "*causa sui*" is, if taken literally, an irrational one; for, in order that an object cause itself, it is necessary that it exist before itself: without existing it can cause nothing, and it must exist before itself, since by hypothesis it is yet to be caused. The expression implies, according to Spinoza's intention, the dependence of existence on essence; but the latter of these cannot cause the former, unless it already exists itself, i. e. what was to be caused exists already before being caused. Spinoza surreptitiously objectifies, after the manner of mediæval Realists, a distinction which is only possible in abstraction, the distinction namely, between essence and existence. He treats these latter as objectively distinct, the latter presupposing the former, and the former conditioning or causing the latter. The expression *causa sui* could only be justified as, say, an inexact designation for *the causeless*—the latter negative but only adequate expression being thus changed into the former positive but inadequate one. (The case of a being already existing, being raised by its own action to a higher plane, furnishes no analogy competent to justify the irrational idea of existence through self-causation, and to say that "*causa sui*" is only an absurdity when predicated of the finite, and not when affirmed of the infinite, were a speculative assertion, which would make of the infinite the "sewer" mentioned by Hegel in his criticism of Berkeley, into which all contradictions flow together.) The expressions employed by Spinoza in defining "causa sui," namely, "*essentia involvens existentiam*" or "*non posse concipi nisi existens*," imply the same fault, which is involved in the ontological argument (see above, §§ on Anselm and Descartes), and they are employed by Spinoza in a like faulty sense in the following demonstrations. That every argument from definitions presupposes the previously established existence of the thing defined, is a logical postulate, against which Spinoza sins as naïvely as Anselm, and much more so than Descartes. By appealing to the pretended implication of existence in *essentia*, that which in his arbitrary definitions is conceived, in part, in a manner repugnant to nature, is covered with the deceptive semblance of reality, and the actually real is in many instances concealed from view.

‡ This definition of that which is finite in its kind is only applicable to objects (*res*), side by side with which others can exist and for which co-existence implies mutual limitation; it loses all its significance when applied not to such *res*, but to natures or attributes, as e. g., if the question were asked, whether the quadratic nature or the essence of the square, *i. e.*, the limitation of a plane figure by four equal straight lines forming only right angles with each other, is finite or infinite in its kind, or whether human nature, aquiline nature, leonine nature, etc., are limited or unlimited. And yet Spinoza, when the definition, in view of the examples cited by him—to the first of which, at least, it is appropriate—has once been granted, afterwards makes of it that illicit use, in which the limit of its meaning and truth as above given is forgotten, and commits, besides, the second, still worse fault, of making the criterion of finiteness to consist, not in the possibility of a "nature" or an "attribute" being limited by another (generically similar, but specifically different) nature, but really in the possibility of a nature being limited by itself as a second nature—which is absurd. He says, namely (in the demonstration to Prop. VII.: *omnis substantia est necessario infinita*) of that substance which has but a single attribute, that it is not finite, since otherwise (according to the second definition) it must be limited by another substance of the same nature, which is impossible, because no two substances with the same attribute can exist; but this latter affirmation he has proved by identifying substance with the totality of its attributes, whence it inevitably follows that the substance of one attribute or one nature is to be conceived as absolutely identical with this attribute or nature; the limitation, therefore, of this substance by another of the same nature, would be the limitation of the same nature by itself as a second nature. The absurdity of this conclusion, however, cannot prove the non-limitation of the nature or substance, because it is an absurdity arising not from the hypothesis of limitation, but from Spinoza's absurd mode of procedure. The quadratic nature, the aquiline nature, etc., or a substance identical with any such nature, cannot be limited by itself as another nature or substance; this, however, is not because it is unlimited or infinite, but because it is not different from itself—1 is not equal to 2—and also because the idea of the limitation of one thing by another homogeneous thing is clearly and fully applicable only to objects existing side by side, *res*, and not to "natures." The deceptive appearance of demonstration is founded in the misleading expression: *substantia unius naturæ*, "substance of one nature," which summons up the idea of a concrete existence distinct from the nature or attribute itself, which idea, after being employed in the paralogism, is again set aside by Spinoza through recourse to his definitions and the propositions derived from them. But the paralogism has provided, meanwhile, a principle, by which a show of justification is secured for Spinoza's procedure in admitting only that which is without limit (extension), or that which at any rate can be regarded as unlimited (*cogitata*), to be an attribute or a *natura*, and in relegating all else to the class of affections or modes. (To the same result, also, leads the subsequent definition of affection or mode—a definition closely related to that of finiteness—by the expression: "*in alio esse;*" see below.)

As third, fourth, and fifth definitions, follow the statements of what Spinoza understands by substance, attribute, and mode. "By substance I understand that which is in itself and is conceived by itself, *i. e.*, the conception of which can be formed without the aid of the conception of any other thing." "By attribute I understand that which the mind perceives as constituting the essence of substance." "By mode I understand the accidents of substance, or that which is in something else, through the aid of which also it is conceived." (*Per substantiam intelligo id, quod in se est et per se concipitur, hoc est id, cujus conceptus non indiget conceptu alterius rei, a quo formari debeat. Per attributum intelligo id, quod intellectus de substantia percipit tamquam ejus essentiam constituens* ["*constituens*" here is neuter, and qualifies *quod*, cf. Def VI.]. *Per modum intelligo substantiæ affectiones sive id, quod in alio est, per quod etiam concipitur.*) It thus appears that the expressions *in se esse* and *in alio esse* mark the difference between substance and affections or modes, while the attributes together constitute the substance. In each case Spinoza tells how the thing defined is and how it is conceived (*i. e.*, when adequately conceived, in which case the conception agrees with the reality.) The attempt has been made to interpret his definition of attribute in a way which would obliterate the difference between Spinozism and Kantianism, namely, by supposing Spinoza to mean that the distinction of attributes is due only to a mental act on our part, and that we then objectify the distinction, as though it were founded in the nature of substance; so, it is added, a really white surface appears to the eye blue or green when viewed through a blue or green glass. But this interpretation, which would make of Spinoza a Subjectivist, is not in harmony with the general character of his philosophy, which is much rather objective, nor with his express language (*e. g.* in Def. VI.: *substantiam constantem infinitis attributis*, etc.) The attributes are, according to Spinoza, in reality, not indeed separated from each other in the

substance to which they belong, but they are different, and the mind in distinguishing them does but recognize their intrinsic diversity; the very existence of the mind implies of itself the existence of the attribute of thought, and the real distinction of the latter from extension. It is only the act of isolating the single attribute, of separating it for the time from the really unseparated unity in which all the attributes are combined, for the purpose of considering it apart (*i. e.*, it is only the "*quatenus consideratur*"), that is due solely to the action of the mind. The comparison of the mind to a prism which analyzes the white ray of light may be allowed, but the comparison of it to a spectator who varies the color by using now a blue, and now a green glass is at least liable to mislead, and suggests a false interpretation. The distinction of attributes by Spinoza, which may seem to justify a subjectivistic interpretation of his doctrine of attributes, is but a distinction of various inseparable phases of the substance which the attributes constitute, a distinction which repeats itself in our conception of substance. But each of these attributes or phases, like different definitions of the circle, etc., is a complete expression of the substance, because they are all inseparably connected with each other. (Cf. Spinoza's comparison of the attributes in substance to smoothness and whiteness in one surface, or to Israel, who wrestled with God, and Jacob, who seized upon the heel of his brother; see *Epist.* 27, and cf. Trendelenburg. *Hist. Beitr.*, III. p. 368.) The substance is the totality of the attributes themselves; the modes, on the contrary, are something other, secondary; for which reason, also, Spinoza can say (in the corollary to Prop. VI.) that there exists nothing but substance and affections, not as though the attributes as such had no existence, or as though they were not *realiter* different from each other, but because their existence, in the mentioning of substance, has already been indicated. The modes of substance do not constitute a positive addition to it. They are, on the contrary, mere limitations of it, determinations, hence negations ("*omnis determinatio*," says Spinoza, "*est negatio*"), just as every mathematical body, in virtue of its limitation, is a determination of the realm of infinite extension (negation of that portion of space which is external to the body).

The modes, or accidents, are not constituent parts of substance; substance is by nature prior to its accidents (according to Prop. I., which is deduced directly from the definitions), and must, in order to be viewed in its true nature, be considered apart from its accidents and *in se* (Demonstr. of Prop. V.: *depositis affectionibus et in se considerata*). Hence Spinoza cannot mean by substance a concrete thing, for the latter can never exist without individual determinations (which Spinoza reckons among "affections" or accidents), nor be considered "apart from its accidents," or as it truly and really exists. By substance, in Spinoza's language, we can only understand an Abstractum, to which he yet (after the manner of mediæval realists) attributes independent existence.*

* In marking the difference between substance and its accidents, Spinoza ignores the figurative character of the expressions employed by him: *in se esse* and *in alio esse* ("existence in self" and "existence in something else"), and their incompetence to serve as criteria of the attributive or modal character of any of the elements of an object. Extension and thought are viewed by him as attributes; if, therefore, substance is in itself, so are extension and thought *in* extension and thought—a statement with which no clear idea can be connected. Every particular thought and act of will is viewed by him as a mode; but that these are in the general attribute termed thought can, at the most, be said only in a figurative sense, since the expression *being in* has no proper meaning except in connection with the attribute of extension. If, moreover, we extend the application of this distinction between substance or attribute and modes, and of this phraseology, to other cases than those mentioned by Spinoza (which must be allowable, since Spinoza's affirmation that thought and extension are the only knowable attributes is arbitrary, and founded only on a series of paralogisms), and if we affirm, accordingly, that the accidents (*affectiones*) of any essence or nature that may be defined are in that essence, we are conducted necessarily to the assertion that, for example, the specific length of the side of any particular square and the position of the square are immanent in the quadratic nature, or that the individual man, eagle, lion, exists in human, aquiline, or leonine nature. Thus we are landed at once in a crude Realism (in the mediæval sense of the term), whose scientific legitimacy is simply presupposed, but not demonstrated by Spinoza. The counter-arguments of Nominalism are nowhere confuted by Spinoza, who, on the contrary, admits their justice in theory, while he indicates the contrary by his practice.

He proceeds here, as, in logical respects, everywhere, in a manner altogether naïve. *Inesse* (ἐνυπάρχειν) is, indeed, also an Aristotelian expression; but, as employed by Aristotle, it has an intelligible and legitimate meaning, since for Aristotle the substances to which, as he says, the name of substance pre-eminently belongs (πρῶται οὐσίαι) are all individual objects, *in* which whatever can be predicated of them may be said to be. Of individual objects it cannot be said that they are considered "*vere*," *i. e.*, as they really are, "*depositis affectionibus*" (hence, after making abstraction, *e. g.*, of figure and limitation, and retaining in mind only the attribute of extension, and after making abstraction of all that which distinguishes one thinking being from another, and retaining only the attribute of thought); to say so presupposes that other significations of substance and the substantial, according to which the words stand for *essentia* and the essential. In order to establish by universal criteria the difference between the substantial, in the sense of the essential, and the unessential, a profound and thorough logical investigation is requisite. This investigation Spinoza has not made, but makes up for its lack by retaining expressions which have a relative propriety only in connection with the first signification of substance, the one in which Spinoza does not employ the term. These expressions are "*in se*" and "*in alio esse*," and this uncritical blundering is then necessarily followed by an utter confusion of ideas. The first signification of substance is given up, and the second is corrupted, in that only that is allowed to be substantial, in connection with which the expression "to be in" has a real sense (*i. e.*, extension), or is susceptible, in case of emergency, of having such a sense interpreted into it (*i. e.*, *cogitatio*), while all else (*e. g.*, that which in the square is essential to its being a square, or in man, to his being man, etc.) is classed among accidents and modes, as being unessential. The supposed rigorous enchainment of ideas, which has been unjustly praised in the "*Ethics*" of Spinoza, is based, in by far the greater number of cases, on defects of clearness and on paralogisms. A good part of his theorems are far better than his argumentations.

* Spinoza admits that there exist numberless other attributes beside thought and extension, but he slips over this point; as to what these attributes can be, we are left in the dark. But with this definition of "God," it is not difficult for Spinoza—who, as soon as the exigencies of the demonstration demand it, is prepared, by means of the irrational conception of "essence involving existence," to prove, through the ontological paralogism, that the definition is objectively correct—to include in the unity of substance all that actually exists. In doing this, however, as in all his paralogisms, it need not be said that he is not at all to be considered as actuated by a sophistical intention, but simply as under the influence of an unconscious self-deception.

† The first part of the definition of *res libera* involves the same error as the positive use of the expression *causa sui*, namely, the confounding of uncausedness in the eternal and primitive being with self-causation, *i. e.*, with an existence caused by its own nature (as if the latter—even making abstraction of

The next definition is: By God I understand the absolutely infinite being, *i. e.*, the substance consisting of infinite attributes, each of which expresses an eternal and infinite essence. (*Per Deum intelligo ens absolute infinitum, hoc est substantiam constantem infinitis attributis, quorum unumquodque æternam et infinitam essentiam exprimit.*) The expression "absolutely infinite" is explained in the *Explicatio*, by contrasting it with the expression "infinite in its kind" (*in suo genere infinitum*); that which is unlimited or infinite in its kind only, is not such in respect of all possible attributes; but the absolutely infinite is infinite in respect of all attributes.*

The seventh Definition relates to freedom: That thing is called free which exists by the sole necessity of its nature and the determining cause of whose activity is in itself alone. But that is called necessary, or rather constrained, which owes its existence to another, and whose activity is the result of fixed and determinate causes (*ea res libera dicitur, quæ ex sola suæ naturæ necessitate existit et a se sola ad agendum determinatur. Necessaria autem vel potius coacta quæ ab alio determinatur ad existendum et operandum certa ac determinata ratione*).†

† The first part of the definition of *res libera* involves the same error as the positive use of the expression *causa sui*, namely, the confounding of uncausedness in the eternal and primitive being with self-causation, *i. e.*, with an existence caused by its own nature (as if the latter—even making abstraction of

The eighth Definition links the conception of eternity with the ontological Paralogism: By eternity I understand existence itself, in as far as it is conceived necessarily to follow from the sole definition of an eternal thing (*per æternitatem intelligo ipsam existentiam, quatenus ex sola rei æternæ definitione necessario sequi concipitur*).

To the eight definitions Spinoza adds seven axioms. The first Axiom is: Everything which is, is either in itself or in some other thing. (*Omnia, quæ sunt, vel in se vel in alio sunt*).*

The second Axiom is: That which cannot be conceived through another, must be conceived through itself (*id quod per aliud non potest concipi, per se concipi debet*).†

The third Axiom is: A determinate cause being given, the effect necessarily follows, and *per contra*: if no determinate cause be given, it is impossible that the effect should follow. (*Ex data causa determinata necessario sequitur effectus, et contra: si nulla detur determinata causa, impossibile est, ut effectus sequatur.*)‡

The knowledge of the effect depends upon and involves the knowledge of the cause. (*Effectus cognitio a cognitione causæ dependet et eandem involvit.*) This is the fourth Axiom, which expresses, in its (subjective) relation to human knowledge, the same which in the third was expressed objectively.§

The fifth Axiom affirms that things which have nothing in common with each other cannot be understood by means of each other, or the conception of the one does not involve the conception of the other (*quæ nihil commune cum se invicem habent, etiam per*

time—could in any real sense be the *prius* of existence). The second part comes more nearly to the point, since in fact freedom belongs to action, and not to entrance into existence; yet it diverts attention from what is alone the real state of the case in the whole sphere of experience, or from the fact that every event depends on the co-operation of several factors, and that freedom means only the prevalence of the internal factors over the external. But the definitions of necessity and compulsion should have been separated from each other, and not by a "*vel potius*" amalgamated. For the rest, Spinoza rightly seeks for the proper opposite of freedom, not in necessity taken generally, but in a distinct kind of necessity, namely, constraint, which is to be defined as a necessity having its source not in the nature of the subject of constraint, but in something foreign to that nature (whether in the internal or the external world), and overruling the endeavors (and frustrating the wishes) to which that nature itself gives rise.

* This axiom, combined with the third and fourth definitions, is employed (in the *Demonstratio* to the fourth and the corollary to the sixth Proposition) to establish the doctrine that in reality nothing exists but substances and their accidents. The demonstration is illusory on account of the figurative use made of the expressions *in se esse* and *in alio esse* in the Definitions; while, on the contrary, such plausibility as the axiom retains, after the necessary deductions have been made on account of the obscurity of the words *in se esse*, depends on the expressions being taken literally.

† Two things are here left out of consideration: 1. That since conceiving (or comprehending) implies the perception of a causal nexus, and since every causal relation subsists between two or more related elements, not the disjunctives "either, or," either *concipi per aliud* or *concipi per se*, but rather the colligatives "as well, as" are in place, *i. e.*, it should be affirmed that whatever is conceived is conceived in and by means of its relation to its causal correlate, greater weight being laid on the one or the other of these correlates according to the circumstances of the case. 2. That the conceivableness of all things may not be presupposed without farther question, but that the inquiry should first be raised, whether there exist limits to our knowledge, which question again resolves itself into the (Kantian) question, whether there are no absolute or universal limits to human knowledge, and into the question (of controlling importance for the determination of the immediate problems of science) as to what at any given time is the actual limit of conceivableness, and what are the next steps necessary to enlarge the sphere of things conceivable.

‡ This axiom is only true when the conception of cause is rightly understood, and when the cause is not conceived as something simple, rather than composite.

§ It is characteristic of Spinoza that, of the double relation mentioned by Aristotle as subsisting between our knowledge and the objective causal nexus, he here attends only to one aspect, namely, to that knowledge which advances from the πρότερον φύσει to the ὕστερον φύσει (*a priori ad posterius*), but leaves the other unmentioned, namely, the regressive inference from the effect to the cause, *a posteriori ad prius*, from the ὕστερον φύσει, which yet is the πρότερον πρὸς ἡμᾶς or the ἡμῖν γνωριμώτερον, to the πρότερον φύσει which is the ὕστερον πρὸς ἡμᾶς.

se invicem intelligi non possunt, sive conceptus unius alterius conceptum non involvit), from which, in combination with the preceding axioms, the conclusion is drawn (in Prop. III.), that, of two things having nothing in common, the one cannot be the cause of the other.*

In the sixth Axiom Spinoza affirms that the true representation must agree with the object represented (*idea vera debet cum suo ideato convenire*).†

The seventh and last Axiom asserts that if anything can be conceived as not existing, its essence does not involve existence (*quidquid ut non existens potest concipi, ejus essentia non involvit existentiam*). ‡

The Definitions and Axioms are followed by Propositions, to which proofs are joined that have indeed only the appearance of proofs, since the definitions and postulates on which they depend involve logical faults.

The first Proposition, deduced immediately from Definitions III. and V., is as follows: Substance is prior to its accidents. The second Proposition affirms that two substances, with different attributes, have nothing in common with each other, and it is derived from the Definition of substance; § from this it is concluded that one substance cannot be the cause of another substance having attributes different from its own; but Spinoza asserts farther (in Prop. V.) that there are not two or more substances with the same attribute (because for him, as above remarked, the substance is identical with its attributes, and consequently, in all individuals of the same kind, the substance is the same), so that neither can one substance be the cause of another substance having an attribute the same as its own; therefore, he concludes, no substance can be the cause of another substance (Prop. VI.). One substance cannot be produced by another substance, and therefore, since in reality nothing exists but substances and their affections, not by anything else whatsoever (Corollary to Prop. VI.). Since one substance cannot be produced by another, it must, says Spinoza (in the demonstration to Prop. VII.), be the cause of itself, *i. e.*, according to the first definition, its essence involves its existence, or existence belongs to its nature (Prop. VII.: *Ad naturam substantiæ pertinet existere*). ‖

* To this axiom the above remarks on the relation of causality are applicable. In the fourth of his *Letters* Spinoza seeks (with apparent justice) to establish the proposition, that the causal relation presupposes something common to the terms of the relation, on the ground that, if the reverse were true, the effect must have all which it has from nothing.

† No axiom was needed here, but only a definition of truth. Undoubtedly truth, in the literal, theoretical signification of this word, is the agreement between thought and that portion of reality to which thought is directed. But it is not the isolated representation (*idea*) which is true or false, but only the combination of representations in a judgment (an affirmation); when a representation does not enter into some form of assertion, there subsists neither the relation of truth nor of falsehood. This just observation of Aristotle Spinoza has here left unnoticed.

‡ This axiom involves the idea on which the ontological paralogism is founded, the idea that there is a form of being, from the definition of which we can infer its existence. Every real *essentia* implies, of course, the being of the objects whose essence it is; but this proposition is a mere tautology. No essence can be a cause before it exists; but it exists only in the objects whose essence it is. That form of thought which respects the *essentia*, i. e., the (subjective) concept (*conceptus*), may indeed, if the reality of the object of the concept be presupposed, justify us in attributing, *à priori*, definite predicates to that object, but not without this presupposition, and it can therefore in no case demonstrate the truth of this presupposition itself.

§ The argumentation is correct only in the case of totally different attributes, but not in the case, which Spinoza excludes as impossible, of different attributes generically the same and only specifically different.

‖ In this ontological demonstration, (1) the fact is overlooked that the first proposition needs to be supplemented by the clause: provided that the substance exists; (2) the negative affirmation: it must be without a cause, has been illegitimately converted into the positive one: it must be the cause of itself; (3) in the inference: it must, since it is not caused by anything else, be caused by itself, the term cause has

The proof of Prop. VIII.: "All substance is necessarily infinite," rests on the assertion (in Prop. V.) that there cannot be more than one substance having the same attribute.*

From the definition of Attribute Spinoza deduces the ninth Proposition: The more reality or being a thing has, the more attributes does it possess (*quo plus realitatis aut esse unaquæque res habet, eo plura attributa ipsi competunt*), and from the same definition, together with the definition of Substance, the tenth Proposition: Every attribute of one substance must be conceived by itself (*unumquodque unius substantiæ attributum per se concipi debet*).†

been taken in the sense sanctioned by universal usage, while in the conjoined premise ("its essence necessarily involves existence, or existence belongs to its nature"—*id est* [*per Def. I.*] *ipsius essentia involvit necessario existentiam sive ad ejus naturam pertinet existere*) the same term in the expression "cause of itself" is explained in accordance with Spinoza's arbitrary definition, without even an attempt to show the coincidence of the two significations; in other words, the fallacy above indicated (p. 64) of a *quaternio terminorum* is committed by the confounding of a "definition formed synthetically" with one "formed analytically."

* That this proof is fallacious, because the second Definition, on which also it rests, involves a false supposition, has been remarked above. That a substance is alone in its kind and cannot be limited by a duplicate of itself (since no such duplicate can exist) determines nothing respecting the magnitude and extension of the "substance." Grant, for example, that each thought is homogeneous with every other thought, *i. e.*, that "thought generally" is one, and it no more follows that thought is unbounded and ubiquitous than that, because every eagle participates in the one aquiline nature (or, to express it in Spinozistic phraseology, *is in* the aquiline nature), the aquiline nature is unbounded and ubiquitous, or that, supposing our sun to be the only one in existence, it must therefore be infinite. A shorter proof is subjoined by Spinoza in the first Scholium, founded simply on Propos. VII. (*ad naturam substantiæ pertinet existere*). He here argues that all substance must be infinite, because the finite is in reality a partial negation (*ex parte negatio*) and the infinite is an absolute affirmation of existence (*absoluta affirmatio existentiæ alicujus naturæ*). But the terms of this argument—which agrees with Spinoza's theorem, "*omnis determinatio est negatio*"—involve a *petitio principii*, since the infinity of all that is primitive must be presupposed, in order justly to affirm that finiteness is a partial negation of this primitive reality; one who should adopt the theory of atoms, or of finite monads, or perchance of a finite world as the primitive *factum*, would not be compelled to admit this argument of Spinoza, and could not be refuted by it. (Leibnitz, in his *Considérations sur la doctrine d'un Esprit universel*, in Erdmann's Extracts from his Philos. Works, p. 179. declares Spinoza's demonstrations concerning substance to be "*pitoyables ou non intelligibles.*")

† The latter Proposition stands in a doubtful relation to the Definition of substance as that which "is in itself and is conceived by itself." (That substance must be *conceived by itself* is not intended by Spinoza to be viewed as constituting a second mark of substance distinct from that expressed in the words: *is in itself;* on the contrary, since thought and being are conceived as congruent, the two marks are essentially identical.) All that can lawfully be inferred is that the attribute, since it too must be conceived by itself, must also be substantial, or that no substance can have more than one attribute. In a Scholion Spinoza repudiates this conclusion as inadmissible, because it would conflict with the substance of the ninth Proposition, but he does not succeed in overthrowing its formal truth and necessity. The difference between attribute and substance cannot consist with the ascription to every attribute of *per se concipi*, and in the ninth Proposition the presupposition that one substance can have more reality and being than another is itself left undemonstrated. Either the so-called attribute possesses independent existence—in which case it is a substance—or, with other so-called attributes, it must be affirmed as a predicate of substance, in which case it is in the substance and can be conceived or thought only through the substance, and it is, therefore, not an attribute, but a mode. It would be logically more consistent to assume the existence of one substance with one attribute, or even of numerous, perhaps infinitely numerous substances, each having one attribute (substance and attribute thus being identical), than to assume the existence of a plurality of attributes. Then, of course, no distinction between substances of greater and less reality, nor between infinity in kind and absolute infinity, would be admissible. But Spinoza makes and maintains these distinctions in order, evidently—however far he may be from confessing it—that his theory may not conflict with the objective fact of the actual connection and mutual relation of "thought" and "extension," or with his monistic convictions, and all scruples are brushed away by the easy means of including all attributes in the definition of God as the "*ens absolute infinitum*," and of vindicating the real validity of this definition by means of the conception of existence as involved in essence. Thus Proposition XI. is based on the ontological Paralogism.

Prop. XI.: God, or a substance consisting of infinite attributes, each of which expresses an eternal and infinite essence, exists by necessity (because being belongs to his *essentia*. Spinoza's words are: *Deus sive substantia constans infinitis attributis, quorum unumquodque æternam et infinitam essentiam exprimit, necessario existit*). With the argument for the existence of an infinite substance, drawn from the definition, and which Spinoza designates as *Demonstratio à priori*, he combines (like Descartes) another, founded on the fact of our own existence, whereby God's necessary existence is established *à posteriori*. It is impossible that only finite beings should exist, for then they would, as necessary beings, be more powerful than the absolutely infinite being, since the ability not to exist (*posse non existere*) is an *impotentia*, while the ability to exist (*posse existere*) is a *potentia*.*

Substance is, as such, indivisible, for by a portion of substance nothing else could be understood but a limited substance, which would be a contradiction in terms. Besides God there exists no other substance; for every attribute by which a substance can be determined is included in God, and there is never more than one substance having the same attribute. There is only one God; for only one absolutely infinite substance can exist. Not only do all attributes belong to God (since a substance consists of its attributes), but all modes, as affections of substance, are also in God: Whatever is, is in God, and nothing can either be, or be conceived, without God (*quidquid est, in Deo est, et nihil sine Deo esse neque concipi potest*, Prop. XV.). Spinoza justifies at length (in the Scholium to Prop. XV.) the inclusion of extension in the definition of the essence of God. From the necessity of the divine nature follow an infinite number of things in an infinite number of ways; God is, therefore, the efficient cause of all which can fall within the sphere of the infinite intellect, and he is the absolutely first cause. ("Cause," surely, only in a very figurative sense, since he was never without modes.) God acts only according to the laws of his nature, constrained by no one, and hence with absolute freedom, and he is the only free cause. God, as the cause of all things, is their immanent ("indwelling") cause, not transcendent (passing over into that which is other than himself). (*Deus est omnium rerum causa immanens, non vero transiens, Propos. XVIII.*; cf. *Epist. XXI., ad Oldenburgium: Deum omnium rerum causam immanentem, ut ajunt, non vero transeuntem statuo. Omnia, inquam, in Deo esse et in Deo moveri cum Paulo affirmo et forte etiam cum omnibus antiquis philosophis, licet alio modo, et auderem etiam dicere, cum antiquis omnibus Hebræis, quantum ex quibus-*

* That in this latter argumentation our (subjective) uncertainty as to the reality or non-reality of objective existence is uncritically confounded with the "impotence" of such existence (whose reality is by this very act presumed beforehand), is at once evident; here again Spinoza, as is his wont, leaves entirely unnoticed the diversity (pointed out by Nominalism, and still more emphasized by the Kantian Criticism) of the subjective and objective elements in our knowledge (in the manner of one-sided "Realism" and of "Dogmatism," although, in other respects, Spinoza's doctrine contains also nominalistic elements). That the argument drawn from the definition involves a paralogism, which is natural to "Realism" (in the mediæval sense of this word), though not necessarily confined to the stand-point of Realism alone, has been already above mentioned (Vol. I., § 93). After that Spinoza, by means of the ontological Paralogism, has established for his definition, which includes all reality in "God," an appearance of objective truth, it is not difficult for him to conclude that nothing at all exists except God alone and the modes which are in him.

It would lead us far beyond the limits within which our exposition in this compendium must be confined, if we were to continue everywhere to point out, as we have done thus far, the logical fallacies of which, mostly in the first steps, but occasionally also in the later ones of the "Ethics," Spinoza is guilty; the minuteness with which we have done this thus far may find its justification in the importance of an exact estimate of the foundations of the Spinozistic doctrine, and in the comparative rareness of exact criticisms of the details of his demonstrations. From this point forward a mere review of the further progress in the development of the ideas in Spinoza's system may suffice.

dam traditionibus, tametsi multis modis adulteratis, conjicere licet. On the distinction between the different kinds of causes, as made by Spinoza, and by Dutch logicians, such as Burgersdik and Heerebord, whom Spinoza here more immediately follows, see Trendelenburg, *Hist. Beitr.* III., p. 316 seq.; still earlier, however, had the Aristotelian division of causes into four kinds been modified, and we find Petrus Hispanus and others, under the head of "*Logica Modernorum*," treating "*de causa materiali permanente*" and "*de causa materiali transeunte;*" the former is described as retaining its nature in the effect, as the iron in the sword, and the latter as losing it, as the grain in the bread.) God's existence is identical with his essence. All his attributes are invariable. Whatever follows from the absolute nature of any of the divine attributes is likewise eternal and infinite. The essence of the things produced by God does not involve existence; God is the cause of their essence, of their entrance into existence, and of their continuance in existence. Individual objects are nothing but affections of the attributes of God, or modes, by which God's attributes are in a determinate manner expressed (Corollary to Prop. XXV.: *res particulares nihil sunt, nisi Dei attributorum affectiones, sive modi, quibus Dei attributa certo et determinato modo exprimuntur*). All events, including all acts of volition, are determined by God. All particular things which have a finite and limited existence can be determined to existence and to action only through finite causes, and not immediately by God, since all the effects of God's direct agency are infinite and eternal (so that, according to Spinozistic teaching, the possibility of miracles in the sense of a direct interference of God with the order of nature is excluded). God, considered in his attributes, or as a free cause, is called by Spinoza (after the example partly of Scholastics who termed God *natura naturans*, and created existence *natura naturata*, and partly, and more especially, of Giordano Bruno) *natura naturans*. By *natura naturata*, on the contrary, Spinoza understands all that which follows from the necessity of the divine nature, or of either of his attributes, *i. e.*, all modes of the attributes of God, regarded as things which are in God, and which, without God, can neither be nor be conceived. The intellect, which, in distinction from absolute thought (*absoluta cogitatio*), is a definite mode of thought (*modus cogitandi*), distinct from other modes, such as will, desire, love, belongs, whether infinite or finite, to the *natura naturata*, and not to the *natura naturans*. (The infinite intellect is to be conceived only as the immanent unity, and hence not as the sum, but only as the *prius* of finite intellects, but in distinction from *cogitatio absoluta*, is it an explicit or actual unity; every *intellectus* is something actual, an *intellectio*. Will and intellect are related to thought, just as are motion and rest to extension. Cf. also *Eth.* V., *Proposition* 40, *Scholion:* "*Mens nostra, quatenus intelligit, æternus cogitandi modus est, qui alio æterno cogitandi modo determinatur et hic iterum ab alio et sic in infinitum, ita ut omnes simul Dei æternum et infinitum intellectum constituant.*" In the *Tractatus de Deo*, etc., Spinoza terms the infinite intellect of God, God's only-begotten Son, in whom the essence of all things is known by God in an eternal and unchangeable manner; this is the Plotinic doctrine—which was itself suggested by the Philonic Logos-doctrine—of the νοῦς, in which were the ideas. From a Jewish modification of this Plotinic teaching, coupled with a Christian element, arose the doctrine of the Adam Cadmon, whom the Cabalists termed the only-begotten Son of God, and the sum and substance of the ideas. Spinoza, perhaps, took these conceptions from Cabalistic writings, although his doctrine, in other respects, is not to be explained as derived from the Cabala. The immediate source of his Cabalistic knowledge may have been the "*Gate of Heaven*" of Abraham Cohen Irira, who emigrated from Portugal and died in Holland in 1631; cf.

Sigwart, p. 96 seq.) The world of things could have been created by God in no other manner and in no other order than the manner and order in which they were created, since they followed necessarily from God's unchangeable nature, and were not arbitrarily produced with a view to particular ends. God's power is identical with his essence. Whatever is in his power, necessarily is. Nothing exists, from whose nature some effect does not follow, since everything that exists is a determinate mode of the active power of God.

In the second part of his *Ethics* Spinoza treats of the nature and origin of the human mind (*de natura et origine mentis*). He begins again with definitions and axioms. Body he defines as the mode, which expresses in a determinate manner the essence of God, in so far as he is considered as an extended thing. Spinoza defines as belonging to the essence of a thing all that which being given, the thing is necessarily given, and which being wanting, the thing necessarily ceases to exist, or that without which the thing, and which itself without the thing, can neither be nor be conceived. By idea (to which term Spinoza gives only a subjective sense) Spinoza understands the concept (*conceptus*) which is formed by the mind (*mens*) as a thinking thing; he prefers the term *conceptus* to *perceptio*, because *conceptus*, as he says, seems to express an activity, but *perceptio* a passivity of the mind. (The term *idea* signifies originally shape, form of an object, and in this sense it was first applied to denote the image of perception, or the form of the perceived object as received into consciousness. But Spinoza wholly disconnects from the term this its original signification, a procedure the more easy for Spinoza, since he was not restrained by regard for Greek linguistic usage.)

By an "adequate idea" Spinoza understands an idea which has all the intrinsic marks of a true one (in distinction from the external mark, namely, the *convenientia ideæ cum suo ideato*). Duration is defined as the indefinite continuation of existence. Reality is identified by Spinoza with perfection. By particular objects (*res singulares*) he understands all finite things. These definitions are followed by axioms and postulates. The first axiom affirms that the essence of man does not involve necessary existence. Then follow several empirical dicta under the title of "axioms." Man thinks. Love, desire, and, in general, all modes of thought depend on the presence in the mind of a representation (*idea*) of an object; but the representation can be present without the other modes. We perceive that a certain body is affected in numerous ways (*nos corpus quoddam multis modis affici sentimus*). We feel and perceive no other individual things beside bodies and modes of thought. Farther on are added empirical propositions relating to bodies, and especially to the fact that bodies consist of parts, which themselves are likewise composite, and to the relations of bodies to each other; these are called "Postulates." Among the Propositions of this Part, the most noticeable are the following: God is a thinking thing (*res cogitans*) and an extended thing; thought and extension are attributes of God. In God there is necessarily an idea as well of his essence, as of all, which necessarily follows from his essence. All particular thoughts have God, as thinking being, just as all particular bodies have God, as an extended being, for their cause; ideas are not caused by their *ideata* or by the perceived things, and things are not caused by thoughts. But the things of which we have ideas follow in the same way and with the same necessity from their attribute as do our ideas from the attribute of thought; the order and connection of ideas is the same as the order and connection of things (*Prop. VII.: ordo et connexio idearum idem est, ac ordo et connexio rerum*); for the attributes from which the former and the latter respectively follow express the essence of one substance.

That which follows from the infinite nature of God in the world of external reality (*formaliter*) follows without exception in the same order and connection from the idea of God in thought (*objective*). A mode of extension and the idea of the same are one and the same thing, but expressed in two different ways (*Eth.* II. 7, *Schol.*, where Spinoza adds: *quod quidam Hebræorum quasi per nebulam vidisse videntur, Deum Dei intellectum rescque ab ipso intellectas unum et idem esse;* Trendelenburg, *Hist. Beitr.*, III., p. 395, compares with this Moses Maimon., *More Nevochim* I., ch. 68, and Arist., *De Anima*, III., 4, and *Metaph.*, XII., 7 and 9.) The idea of any manner in which the human body is affected by external bodies must involve chiefly, indeed, an idea of the nature of the human body (brain?), but also, in addition, an idea of the nature of the external, affecting body, because all the ways in which a body is affected result at the same time from the nature of the affected and of the affecting bodies. Hence the human mind perceives the nature of very many other bodies, at the same time that it perceives the nature of its own body.* In consequence of the continuance of the impressions received by the body from without, other bodies, even though no longer present, can be mentally represented in the same manner as if they were present. If the human body is simultaneously acted upon by two other bodies, and if afterwards one of these is called up in imagination, the order and concatenation of the impressions received by the body is such that the other must also be called up. With the mind is united an idea of the mind (self-consciousness) in the same way in which the mind is united with the body. The idea of the mind or the idea of the idea is nothing

* Correctly as this theory is developed from Spinoza's fundamental postulates, the ground of the necessity of the agreement between the modes of thought and of extension is by no means made really clear by Spinoza's fundamental conceptions; for how conformity in duality follows from the "unity of substance" is left undetermined. Either the modes of thought are *realiter* different from those of extension, and then their conformity is not explained by their merely inhering in the same substance; or they are simply different ways of apprehending the same real mode, which in itself is only one, although appearing to us as twofold —and then this twofold manner of apprehending remains itself unintelligible; for there does not exist, distinct from the one all-comprehending substance, a second factor, the agent of apprehension. On the contrary, the cause of this duality of apprehension must be founded in the nature of substance itself, which yet is scarcely possible, unless in it the modes of thought are *realiter* different from those of extension. The first of the above alternatives was affirmed by Spinoza most decidedly in the earlier period of his philosophizing, when he held that thought and extension could act upon each other, and especially that thought could be determined by external causes (as appears from the newly-discovered *Tractatus*); but subsequently, when he had ceased to believe in a causal nexus as uniting the attributes, he approached through the theorems and comparisons examined above (p. 66 seq.) towards the second alternative. Logically developed, the first, provided that no causal relation subsists among the attributes, results in the doctrine of a pre-established harmony, the second in a form of subjective Idealism. Moreover, in accordance with the consequence admitted by Spinoza (*Eth. II., propos.* 13, *Schol.*: "*individua omnia, quamvis diversis gradibus, animata tamen sunt*"), all things, down to minerals even, and gases, must participate directly at the places where they *realiter* are, and not merely by means of their images in the human brain, in the attribute of thought, in which every thought is alleged to be immanent. But if such a theory of universal animation (which must be conceived as involving various degrees) be admitted, it remains obscure, in what sense and by what right the lower forms, by which doubtless only the vegetative and physical forces can be understood, can be subsumed under the attribute of thought, since in them very essential marks of that conscious thought, of which alone we have direct knowledge in ourselves, are wanting, and since, besides, the subsumption (by Schopenhauer) of the same under the "will," although liable to the same objection, can yet at least assert the same claim to acceptance. When we are "affected," it is our bodies that are affected from without, and the process can be explained by reference to mathematical and mechanical laws. Now, in logical consistency with Spinoza's doctrine, there should exist, parallel with this mechanical nexus, which pertains to the attribute of extension, another nexus pertaining to the attribute of thought and synchronously uniting our minds with other minds. But the existence of such a nexus is indemonstrable, and the alleged parallelism is consequently purely hypothetical. The fact is that Spinoza here falls involuntarily into the theory which he formally repudiates, the theory that the modes of extension may act upon the modes of thought.

other than the form of the idea, when the latter is considered as a mode of thought without relation to the corporeal object which it represents. He who knows anything, knows also, by that very fact, that he knows it. The mind knows itself only in so far as it perceives the ideas of the affections of the body. Since the parts of the human body are extremely complex individuals, which belong to the essence of the human body only in a certain respect, while in other respects they are controlled by the universal order of nature, the human mind has not in itself an adequate knowledge of the parts which constitute its body, and still less has it an adequate knowledge of external things, which it knows only through their effects on its body; nor is its knowledge of itself, which it acquires through the idea of the idea of each affection of the human body, adequate. All ideas are true so far as they are referable to God; for all ideas, which are in God, agree perfectly with their objects (*cum suis ideatis omnino conveniunt*). Every idea, which is in us as an absolute or adequate idea, is true; for every such idea is in God, in so far as the latter constitutes the essence of the human mind. Falsehood is nothing positive in our ideas, but consists in a certain, not absolute, privation (*in cognitionis privatione, quam ideæ inadæquatæ sive mutilæ et confusæ involvunt*). Inadequate and confused ideas, as well as those which are adequate or clear and distinct, are subject to the law of causation. Of that which is common to the human body and the bodies that affect it, and is equally in all parts of each, the mind has an adequate conception; the mind is the more capable of forming numerous adequate ideas the more its body has in common with other bodies; ideas which follow from adequate ideas are themselves also adequate. More precisely, Spinoza distinguishes three kinds of cognition. By the first, which he calls *opinio* or *imaginatio*, he understands the development of perceptions and of universal notions derived from them, out of the impressions of the senses through unregulated experience (*experientia vaga*), or out of signs, particularly words, which, through the memory, call forth imaginations. The second kind of cognition, called by Spinoza *ratio*, consists in adequate ideas of the peculiarities of things, or *notiones communes*. The third and highest kind of cognition is the intuitive knowledge (*scientia intuitiva*) which the intellect has of God. This kind of cognition advances from the adequate idea of the essence of some of the attributes of God, to the adequate knowledge of the essence of things. Cognition of the first kind is the only source of deception; that of the second and third kinds teaches us to distinguish the true from the false. He who has a true idea is at the same time certain of its truth (*sicut lux se ipsam et tenebras manifestat, sic veritas norma sui et falsi est*). The human mind, in so far as it knows things truly, is a part of the infinite divine intellect (*pars est infiniti Dei intellectus*), and its clear and distinct ideas must therefore be as necessarily true as are the ideas of God. Reason (*ratio*), since it considers things as they really are, considers them not as contingent, but as necessary; it is only imagination that presents them as contingent, when the recollection of diverse instances causes different ideas to arise in the mind and our expectation wavers. Reason apprehends things under a certain form of eternity ("*sub quadam æternitatis specie*") because the necessity of things is the necessity of the eternal nature of God. Every idea of a particular concrete object involves necessarily the eternal and infinite essence of God, which is present alike in all, and therefore is adequately known by the human mind. Since the human mind is a "certain and determinate mode of thought" (*certus et determinatus modus cogitandi*), there is no absolute freedom of the will. The will to affirm or deny ideas is not a causeless, arbitrary act; it is the necessary consequence of the ideas, and just as distinct volitions and ideas are identical, so also are will and intellect, which are mere

abstractions, having no real signification apart from single volitional or intellectual acts. (The Cartesian explanation of error as arising from an unlimited freedom of the will, transcending the limitations of the representative faculty, is thus made impossible.)

The third Part of the *Ethics* treats of the origin and nature of the emotions and passions. By emotions and passions Spinoza understands those affections of the body by which its power to act is increased or diminished, furthered or hindered, together with the ideas of these affections. The idea of anything which increases or diminishes the power of the body to act, increases or diminishes the cogitative power of the mind. The transition of the mind from a less to a greater degree of perfection is the cause of joyful emotion; a change in the opposite sense causes sadness. Desire or longing (*cupiditas*) is conscious appetite, and appetite is the essence of man itself, so far as the latter is moved by its very nature to the doing of those things which subserve its conservation (*ipsa hominis essentia, quatenus determinata est ad ea agendum, quæ ipsius conservationi inserviunt*). The three emotions or passions of desire, joy, and sadness are regarded by Spinoza as the only primitive ones from which all others are derived. (Descartes had enumerated as primitive emotions the following six: admiration, love, hate, desire, joy, and sadness.) Love, for example, is joy accompanied by the idea of its external cause (*amor est lætitia concomitante idea causæ externæ*). Hate is sadness with the like accompaniment. Hope is an uncertain joy, arising from the image in the mind of something future or past, of the result of which we are in doubt (*inconstans lætitia, orta ex imagine rei futuræ vel præteritæ, de cujus eventu dubitamus*), and fear is a like uncertain sadness, arising from the image of something which is doubtful. Admiration is defined by Spinoza as that mental image of anything which fixes the attention of the mind, because it has no connection with other images; and contempt as an image which affects the mind so little that the mind is moved by the presence of the thing imagined, to think rather of what does not belong to the thing, than of that which does belong to it; both, however, are viewed as not properly passions. Besides the passions of joy and desire there are other emotions of joy and desire which relate to us in so far as we act, and are therefore actions; but emotions of sadness are never actions. All actions resulting from emotions, which belong to the mind as an intelligent being, are subsumed by Spinoza under the conception of *fortitudo*, and *fortitudo* is divided into *animositas* and *generositas*; the former is defined as prompting the endeavor to conserve one's own being according to the dictates of reason, and the latter as leading to the endeavor rationally to assist other men, and to join them to one's self in friendship. Spinoza remarks in general, that the names of the emotions and passions have been invented rather in accordance with ordinary experience than on the basis of an exact knowledge of the things named.*

* In regard to some of these definitions, *e. g.*, that of love, which includes no reference to the personal feelings of the object of love, it may be questioned whether they are formed "analytically," *i. e.*, by analysis of the conception as given in the universal consciousness of man and in accordance with universal linguistic usage, or "synthetically," *i. e.*, by arbitrarily connecting a conception framed to meet the wants of the system, with a given name; and whether, in the latter case, that which is true of love, etc., only as defined, has not sometimes been paralogistically ascribed to love, etc., in the meaning assigned to them by ordinary linguistic usage. Yet, in the attentive and delicate investigation of the nature of the passions, and of their mutual relations, consists, undeniably, one of the greatest merits of Spinoza's work. Johannes Müller has incorporated into his "*Physiologie des Menschen*" (Vol. II., Coblenz, 1840, pp. 543-548) the principal definitions of the third Part of the "Ethics," under the title: "*Lehrsätze von Spinoza über die Statik der Gemüthsbewegungen*," with the remark (in consonance with Spinoza's own doctrine), that this Statics is only so far produced by necessary law, as man is conceived as moved by passions alone; it being capable of modifications by man's reason.

The fourth Part of the *Ethics* treats of human servitude (*De Servitute Humana*), by which Spinoza means human impotence in the direction and restraint of the passions. The man who is subject to his passions has not power over himself, but is under the control of external circumstances or of fortune, and is often compelled, while seeing the better, to do the worse. The speculations in this Part are founded especially on the following definitions of good and evil: By the good, he says, I understand that which we know with certainty to be useful to us, and by evil, that of which we know with like certainty that it will hinder us from the attainment of any good (*per bonum id intelligam, quod certo scimus nobis esse utile, per malum autem id, quod certo scimus impedire, quo minus boni alicujus simus compotes*), and the useful is defined as the means by which we gradually approach towards that ideal of human nature which we propose to ourselves (*medium, ut ad exemplar humanæ naturæ, quod nobis proponimus, magis magisque accedamus*). The terms good and evil, we are told, denote nothing absolute, nothing which exists in things considered in themselves; they are the names of relative conceptions which result from our reflection on the relation of things to each other. From the axiom: No single thing exists in nature, than which another, more powerful, does not exist, it follows that man, who, as an individual being, is a part of the whole complex of nature, and whose power is a finite part of the infinite power of God or of nature, is necessarily subject to passions, *i. e.*, that he is thrown into conditions, of which he is not himself the full cause, and whose power and increase are determined by the relation of the power of the external cause to his own power. One passion or emotion can only be overcome by a stronger one, hence not simply by the true knowledge of the good and the evil, but only by that knowledge in so far as it is at the same time identified with an emotion of pleasure or sadness, and as such is more powerful than the opposing passion or emotion. Every one strives necessarily after that which is useful to him, and since reason demands nothing that is really contrary to nature, it demands that each should strive for that which is really useful for the conservation of his being and the attainment of greater perfection; but nothing is more useful to man than man himself, and hence men who are guided by reason, *i. e.*, who seek their good according to reason, strive to obtain nothing for themselves which they do not also desire for other men, and are therefore just, true, and honorable. The man who is guided by reason is freer in a civil community where he lives according to laws made for all the citizens, than in a condition of isolation, where he obeys only himself.

In the fifth Part of the *Ethics* Spinoza treats of the power of the intellect or of human freedom, showing what is the power of reason or of adequate ideas over the blind energy of the passions. A passion is as such a confused idea; but as soon as we form a clear and distinct idea of it, as we always may, it ceases to be a passion. In the true knowledge of the passions, therefore, is found the best remedy against them. The more the mind recognizes all things as necessary, the less does it suffer from the passions. He who has a clear and distinct knowledge of his passions rejoices in this knowledge, and this joy is accompanied by the idea of God, since all clear knowledge involves this idea. Joy, accompanied with the idea of its cause, is love; hence he who has clear knowledge of himself and of his passions, loves God, and loves him all the more, the more perfect his knowledge is. This love to God, since it accompanies the knowledge of all passions and emotions, must, in a pre-eminent degree, fill the mind. God is free from all passions, because all ideas in God are true, and hence adequate, and because with God no change in point of perfection is possible. God is, therefore, not affected with joy and sadness, and hence, also, not with love and hatred. No one can

hate God, because the idea of God, as an adequate idea, cannot be accompanied with sadness. He who loves God cannot desire God's love in return, for, so desiring, he would desire that God should not be God. The power of the mind to imagine and remember depends on the duration of the body. But there is in God, since he is the cause, not only of the existence, but also of the essence of the body, an idea which expresses the essence of the human body under the form of eternity (*sub specie æternitatis*). Consequently the human mind cannot be wholly destroyed with the body; there is something that survives it. The idea which expresses the essence of the body under the form of eternity, is a distinct mode of thought, belonging to the essence of the mind (*ad mentis essentiam*) and necessarily eternal. But this eternity cannot be determined by reference to duration in time; hence we cannot remember to have existed before our bodies. But we feel and experience none the less that we are eternal, the organ of this feeling and this experience being logical demonstration. Duration within certain limits of time can only in so far be ascribed to the mind, as the latter involves the actual existence of the body; and only in so far is the mind able to apprehend things under the form of time. The highest endeavor of the mind, and its highest virtue, are to know things with that most perfect kind of knowledge (designated by Spinoza in the second Part of the Ethics *tertium cognitionis genus*), which proceeds from the adequate idea of certain divine attributes to the adequate knowledge of the essence of things. The more we comprehend things in this way, the more do we comprehend God. The greater the capacity of the mind to know in this way, the greater is its desire for such knowledge, and from such knowledge springs the highest satisfaction of the mind. So far as the mind apprehends itself and its body under the form of eternity, it has necessarily the knowledge of God, and knows that it is in God, and is thought by God. Such knowledge is impossible for the mind, except in so far as it is eternal, and the intellectual love to God (*amor Dei intellectualis*) that springs from it is eternal; all other love, on the contrary, and all emotions which are passions, are, like the imagination, inseparable from the body and not eternal. God loves himself with infinite intellectual love; for the divine nature rejoices in infinite perfection, the idea of which is accompanied by the idea of the divine nature as its cause. (In this utterance of Spinoza those who construed the Christian Trinity as denoting the distinction and union in God of causative being, self-consciousness, and love, were able to find for their doctrine a speculative *point d'appui*.) The intellectual love of the mind to God is itself that love whereby God loves himself, not in so far as he is infinite, but in so far as he can be explained by the essence of the human mind considered under the form of eternity, *i. e.*, the intellectual love of the mind to God is a part of the infinite love with which God loves himself (as the human intellect is a part of the infinite divine intellect). In so far as God loves himself, he loves men also; the love of God to men and the intellectual love of the mind to God are identical. Our salvation, or happiness, or freedom consists in constant and eternal love to God, or in God's love to man. This love is indestructible. The more the mind is filled with it, the greater is the portion of immortality with which it is also filled. The eternal part of the mind is the intellect, in the use of which only we are active; the perishable part is the imagination, through which we are subject to passions; the eternal part is therefore the more excellent. Even though we did not know our minds to be eternal, we should yet be compelled to esteem most highly of all things piety and conscientiousness and all other noble qualities. Not happiness, but virtue itself is the reward of virtue, nor do we rejoice in it because it enables us to govern our lusts, but, on the contrary, because we rejoice in it, therefore are we able to govern our lusts.

§ 116. John Locke (1632–1704) sought in his principal work, the "*Essay concerning Human Understanding*," to ascertain the origin of human knowledge, in order by this means to determine the limits and measure of its objective truth. Locke denies the existence of innate ideas and principles. The mind resembles originally a blank tablet. Nothing is in the intellect, which was not previously in the senses. The sources of all our knowledge are partly sensation or sensuous perception, and partly reflection or internal perception; the former is the apprehension of external objects through the external senses, while the latter is the apprehension of psychical phenomena through the internal sense. The different elements of sensuous perception are variously related to objective reality. Extension, figure, motion, and, in general, all spatial properties belong to the external objects themselves. Color and sound, on the contrary, and all other sensible qualities, are only in the perceiving subject and not properly in the things perceived; they are simply signs, and not copies of changes which take place in external things. Through internal experience or reflection we know the actions of our thinking and willing faculties. Through the external senses and the internal sense together we obtain the ideas of power and unity, and other ideas. From simple ideas the mind forms by combination compound (complex) ideas. These are ideas either of modes, or of substances, or of relations. When we find several modes always united with each other, we suppose a substance or substratum, in which they inhere and which supports them; but this conception is obscure and of little use. The principle of individuation is existence itself. The so-called "second substances" of the Aristotelians, or genera, are purely ideal or subjective, being the result of the act of combination by which we unite many similar individuals in one class, and give to them the same name. Knowledge is the perception of the connection and agreement, or of the disagreement and repugnancy of several ideas, viewed with reference to either of the four relations of identity or diversity, relation, coexistence, and real existence. Those are rational judgments, whose truth we can discover by the investigation and development of conceptions which arise from sensation and reflection, as, for example, that a God exists; judgments transcending reason are those whose truth or probability we cannot discover in this way, as, for example, that the dead will be raised. Judgments of the latter kind are the object of faith. Those judgments are contrary to reason,

which involve a contradiction in themselves, or are incompatible with clear and distinct conceptions, as, for example, that there are more Gods than one; such judgments can neither be revealed nor believed For the existence of God Locke adduces the cosmological argument. He regards the immateriality of the soul as probable, but the contrary as not inconceivable. His ethical principle is happiness.

Under the influence of Locke's principles Berkeley (1685–1783), asserting that only minds and their ideas (representations and volitions) exist, developed a form of Idealism or "Phenomenalism;" Hartley and Priestley, on the contrary, founded a materialistic Psychology, with which they nevertheless succeeded in combining theological convictions. Samuel Clarke—who defended Newtonian (and Lockian) doctrines in opposition to Leibnitz—the younger Shaftesbury, Hutcheson, and others contributed in various senses, and more or less under the influence of Locke's doctrine, to the advancement of Moral Philosophy.

Locke's principal work, *An Essay concerning Human Understanding*, in four books, appeared first at London in 1690, then in 1694, 1697, 1700, 1705, etc., and in French, translated, with the co-operation of the author, from the fourth edition by Coste, Amst., 1700, 1729, etc.; 30th ed. in English, London, 1856, again, Lond., 1860; in Latin, translated by Burridge, Lond., 1701, etc.; Latin translation by G. H. Thiele, Leips., 1731; in Dutch, Amst., 1736; in German, translated by H. E. Poley, Altenburg, 1757, translated by G. A. Tittel (extracts), Mannheim, 1791, by W. G. Tennemann (complete, together with an Essay on Empiricism in Philosophy), Leipsic, 1795–97. [Several editions of Locke's essay have also been published in America, *e. g.* New York, 1825; Philadelphia, etc.—*Tr.*] Locke's "*Thoughts on Education*" appeared first in London in 1693 [New York: Schermerhorn, 1869—*Tr.*], in French, transl. by Coste, Amst., 1705, etc.; in German, transl. by Rudolphi, Brunswick, 1788. *Posthumous Works*, Lond., 1706; *Œuvres Diverses de Locke*, Rotterdam, 1710; Amst., 1732. The *Complete Works* were published at London in 1714, 1722, etc., and a supplement to them, under the title: *Collection of Several Pieces of J. Locke*, London, 1720. More recently Locke's complete works have been published in 9 vols., London, 1853, and his philosophical works, edited by St. John, London, 1854.

Locke's friend, Jean Le Clerc, wrote of Locke's life in his *Eloge Historique* in the sixth volume of his *Bibliothèque choisie* (reproduced in the first vol. of the *Œuvres Diverses de Locke*, in Heumann's *Acta Philos.* VI., p. 375, *et al.*), his work being founded on facts furnished him by Locke, the Earl of Shaftesbury, and Lady Masham. A biography of Locke by Lord King was published at London in 1829. Numerous works were written in opposition to his doctrine, immediately after its publication, but its influence increased in Great Britain, France, Holland, Germany, and elsewhere, till near the end of the eighteenth century. The most important reply to the *Essay concerning Human Understanding* was Leibnitz's extended critique, entitled *Nouveaux essais sur l'entendement humain* (see below, § 117). Of the more recent works on Locke, the following may here be mentioned: Tagart, *Locke's Writings and Philosophy*, London, 1855; Th. E. Webb, *The Intellectualism of Locke*, London, 1858; Benj. F. Smart, *Thought and Language, an Essay having in view the revival, correction, and exclusive establishment of Locke's philosophy*, Lond. 1855; J. Brown, *Locke and Sydenham*, London and Edinburgh, 2d ed. 1859, 3d ed. 1866; Victor Cousin, *La Philos. de Locke*, 4th ed., Paris, 1861; *John Locke, Seine Verstandestheorie und seine Lehren über Religion, Staat und Erziehung, psychologisch dargestellt von Emanuel Schärer*, Leipsic, 1860; *Locke's Lehre von der menschl. Erkenntniss in Vergleichung mit Leibnitz's Kritik derselben dargestellt von G. Hartenstein* (from the 4th vol. of the *Philol.-hist. Cl. der K. Sächs. Ges. der Wiss.*), Leipsic, 1861, and now published also in Hartenstein's *Hist.-philos. Abhandlungen*, Leipsic, 1870; M. W. Drobisch, *Ueber L., den Vorläufer Kant's*, in the *Zeitschr. f. ex. Ph.*, II. 1, Leips. 1861, pp. 1–32; E. Fritzsche, *John Locke's Ansichten über Erziehung*, Naumburg, 1866; S. Turbiglio, *Analisi storica delle filos. di Locke e di Leibniz*, Turin, 1867; Richard Quäbicker, *Lockii et Liebnitii de cognitione humanæ sententiæ* (*Diss. Inaug.*), Halle, 1868; Emil Stützell, *Zur Kritik der Erkenntnisslehre von John Locke* (*Diss. Berl.*), Berlin, 1869.

G. Berkeley, *Theory of Vision*, Dublin, 1709, also London, 1711 and 1733, and in B.'s *Works*. *Treatise on the Principles of Human Knowledge*, Dublin, 1710, etc.; German translation by F. Ueberweg, in *Philos. Bibliothek*, Vol. XII., Berlin, 1869. *Three Dialogues between Hylas and Philonous*, London, 1713, etc.; in French, Amst., 1750; in German (as Part I. of an intended translation of his works, of which, however, only this was published), Leipsic, 1781 (also, previously, Rostock, 1756, see below). *Alciphron, or the Minute Philosopher*, London, 1732; French transl. *à la Haye*, 1734, German transl. by W. Kahler, Lemgo, 1737. (In this work B. combats the doctrines of the free-thinkers, and among others the work of Mandeville, entitled, *Fable of the Bees, or Private Vices made Public Benefits*, Lond., 1714 and 1729; Mandeville defended himself in "*A Letter to Dion, occasioned by his Book called Alciphron*, Lond., 1732). *Miscellanies*, London, 1752. *Sammlung der vornehmsten Schriftsteller, die die Wirklichkeit ihres eigenen Körpers und der ganzen Körperwelt leugnen, enthaltend Berkeley's Gespräche zwischen Hylas und Philonous* (German translation from the French) *und des Collier allgemeinen Schlüssel* (*Clavis universalis, or a new inquiry after truth*, by Collier, Lond., 1713), *übers. u. widerlegt von Jon. Christ. Eschenbach*, Rostock, 1756. *The Works of G. Berkeley* (with a *Biography* by Arbuthnot), London, 1784, reprinted 1820 and 1843. *The Works of George Berkeley, D.D., including many of his writings hitherto unpublished. With Prefaces, Annotations, his Life and Letters, and an account of his Philosophy. By Alexander Campbell Fraser, M.A., Professor of Logic and Metaphysics in the University of Edinburgh.* 4 vols., London, Cambridge, and New York; Macmillan, 1871. For elucidations of Berkeley's doctrines see *Lectures on Greek Philosophy and other Philos. Remains of J. F. Ferrier*, ed. by Grant and Lushington, London, 1866, and Thom. Collyns Simon, *On the Nature and Elements of the External World, or Universal Immaterialism fully explained and demonstrated*, London, 1862.

Arthur Collier, *Clavis Universalis, or a New Inquiry after Truth, being a Demonstration of the Non-Existence or Impossibility of an External World*, London, 1713, German translation by Eschenbach, Rostock, 1756 [see above]. Engl. ed. also in the collection edited by Sam. Parr, entitled *Metaph. Tracts by English Philosophers of the Eighteenth Century*, London, 1837. [*Memoirs of the Life and Writings of the Rev. Arthur Collier*, etc., by Robert Benson, London, 1837; Hamilton, *Discussions*.]

David Hartley, *Observations on Man, his Frame, his Duty, and his Expectations*, London, 1749. Joseph Priestley, *Theory of Human Mind*, Lond., 1775; *Disquisitions relating to Matter and Spirit*, Lond., 1777; *The Doctrine of Philosophical Necessity*, Lond., 1777; opposed by Richard Price, the Platonist (1723–1791), in his *Letters on Materialism and Philos. Necessity*, Lond., 1778. Isaac Newton, *Naturalis Philosophiæ Principia Mathematica*, Lond., 1687; also 1713, 1726, etc.; *Treatise of Optic*, Lond., 1704, etc.; *Opera, ed.* Horsley, Lond., 1779; on him cf. David Brewster, Edinb., 1831 (German translation by Goldberg, Leips., 1833); *Memoirs of the Life, Writings, and Discoveries of Sir Isaac Newton*, Edinb., 1855; cf. also Karl Snell, *Newton und die mechan. Naturwissenschaft*, Dresden and Leipsic, 1843, and A. Struve, *Newton's naturphilos. Ansichten*, Sorau, 1869. Anthony Ashley Cooper (Earl of Shaftesbury), *An Inquiry Concerning Virtue and Merit*, 1698, translated into German from the French of Diderot in 1780; *Characteristics of Men, Manners, Opinions, Times*, London, 1711, 1714, etc., German translation, Leipsic, 1776. Samuel Clarke, *Demonstration of the Being and Attributes of God*, London, 1705–1706; *Opera*, London, 1738–42. William Wollaston, *The Religion of Nature Delineated*, London, 1724, etc.; cf. J. M. Drechsler, *Ueber W.'s Moralphilosophie*, Erlangen, 1801. Francis Hutcheson, *Inquiry into the Original of our Ideas of Beauty and Virtue*, Lond., 1725, etc., German transl., Frankf., 1762; *Philosophiæ moralis institutio compendiaria, ethices et jurisprudentiæ naturalis principia continens*, Glasgow, 1745. Henry Home, *Essays on the Principles of Morality and Natural Religion*, Edinb., 1751, in German, Brunswick, 1768; *Elements of Criticism*, Lond., 1762, German, Leipsic, 1765. Adam Smith, *Theory of Moral Sentiment*, Lond., 1759, etc.; *Inquiry into the Nature and Causes of the Wealth of Nations*, London, 1776; cf. on his life and writings Dugald Stewart in the edition of Smith's *Essays*, London, 1795. Adam Ferguson, *Instit. of Moral Philosophy*, London, 1769, German transl. by Garve, Leips., 1772.

John Toland, *Christianity not Mysterious*, Lond., 1696 (in this work Toland rivals Locke's *Reasonableness of the Scriptures*, which was published in 1695); *Letters to Serena*, addressed to the Princess Sophia of Hanover; *Nazarenus or Jewish, Gentile, and Mohametan Christianity; Pantheisticon*, London, 1710; cf. article on Toland by John Hunt in the *Contemporary Review* for June, 1868, pp. 178–198.

John Locke, son of a lawyer of the same name, was born at Wrington (16 miles from Bristol) on the 29th of August, 1632. He studied at the College of Westminster, and subsequently (beginning in the year 1651) at Christ Church College, Oxford. He pursued with special interest the study of natural science and medicine. The scholastic philosophy left him unsatisfied; the works of Descartes pleased him by their clearness and precision, and by their close connection with modern and independent investigations. In the year 1664 he accompanied the English ambassador, Sir William Swan, as Secre-

tary of Legation to the Brandenburg court, and resided a year in Berlin. Returning to England, he occupied himself with investigations in natural science, and especially in meteorology. At Oxford, in 1667, he became acquainted with Lord Ashley, afterwards Earl of Shaftesbury, in whose house he resided for a number of years as physician and friend of the Earl. In the year 1668 he accompanied the Earl of Northumberland on a journey through France and Italy. He then directed in the house of the Earl of Shaftesbury the education of the latter's son (then sixteen years old). The outlines of his *Essay concerning Human Understanding* were drawn up by Locke in 1670, but the work was not published until it had been repeatedly revised. His patron having become, in 1672, Lord Chancellor, Locke received from him the office of Secretary of the Presentation of Benefices, which, however, in the following year, when the Lord Chancellor fell into disfavor, he lost. In the years 1675–1679 Locke lived in France, chiefly at Montpellier, in the society of Herbert, the subsequent Earl of Pembroke, to whom he dedicated his *Essay*, and also at Paris, in intercourse with men of scientific eminence. In 1679 Shaftesbury, having become President of the Council, recalled Locke to England. Shaftesbury, however, on account of his opposition to the despotic tendencies of the king, was again deprived of his office, thrown into the Tower, and subsequently tried on charges preferred against him by the Court. Acquitted by his jury, he repaired to Holland, where he was favorably received by the Stadtholder, Prince William of Orange. Thither Locke followed him toward the end of the year 1683, and lived first at Amsterdam, and afterwards, the English government having demanded his extradition, by turns at Utrecht, Cleves, and Amsterdam, until the year 1688, when, in consequence of the revolution through which William of Orange received the English throne, he was able to return to England, where he received the position of Commissioner of Appeals, and afterwards that of a Commissioner of Trade and Plantations. In the year 1685 he published (anonymously) his first *Letter Concerning Toleration*, and in 1689 the second and third. The *Essay concerning Human Understanding* was finished in 1687; in the following year an abridgment of it, prepared by Locke, was translated into French by Le Clerc (Clericus), and published in the translator's *Bibl. Univers.*, viii., pp. 49–142; in 1690 the work itself was printed. In 1689 Locke published anonymously two treatises *On Civil Government*, in opposition to the doctrine of Robert Filmer, that the king inherits from Adam patriarchal and unlimited power, and in justification of the revolution just accomplished. Three small works on money and coinage appeared likewise in the year 1689. The work on *Education* appeared in 1693. The work on the "*Reasonableness of Christianity as Delivered in the Scriptures*" was published in 1695. Locke passed the last years of his life mostly at Oates, in the county of Essex, in the house of Sir Francis Masham, whose wife was a daughter of Cudworth. He died there in the seventy-third year of his life, October 28, 1704.

Locke defines it as the subject and aim of his *Essay concerning Human Understanding* (I. 1, 2, and 3) "to inquire into the original, certainty, and extent of human knowledge, together with the grounds and degrees of belief, opinion, and assent." He proposes to explain how "our understandings come to attain those notions of things we have," to determine the "measures of the certainty of our knowledge," "to search out the bounds between opinion and knowledge, and examine by what measures, in things whereof we have no certain knowledge, we ought to regulate our assent and moderate our persuasions." He relates (in the "*Epistle to the Reader*") that several of his friends having engaged in a philosophical discussion, and being unable to arrive at any definite result, it came into his thoughts that an inquiry into the scope of the understanding, what objects lie within its sphere, and what beyond it, must precede all other philosophical inquiries.

In the first Book of the *Essay* Locke seeks to demonstrate that there are *no* innate ideas.

There are in the mind *ideas* (which term Locke explains that he will employ as synonymous with *notion*). Every man is conscious of them in himself; and men's words and actions will satisfy him that they are in others. How, now, do these ideas come into the mind?

It is an established opinion amongst some men that there are in the understanding certain innate principles, primary notions (κοιναὶ ἔννοιαι), characters stamped on the mind, which the soul brings with it into the world. This opinion could, indeed, be sufficiently refuted for the unprejudiced reader by merely showing how, by the use of our natural faculties, all the kinds of our ideas really arise; but since the opinion is very widely extended, it is necessary also to examine the grounds alleged in its defence, and to exhibit the counter-arguments.

The weightiest argument of the defenders of the doctrine of innate ideas is founded on the assumption that certain theoretical and practical principles are universally accepted as true. Locke disputes both the truth and the force of this argument. The alleged agreement respecting such principles is not a fact, and if it were, it would not prove their innateness, if another way can be pointed out by which the agreement could arise.

Among the speculative principles which it is affirmed are innate, belong the celebrated principles of demonstration: *Whatever is, is* (Principle of Identity), and, *It is impossible that the same thing should be and not be* (Principle of Contradiction). But these principles are unknown to children and to all who are without scientific education, and it seems almost a contradiction to affirm that truths are impressed on the soul, of which it has no consciousness and no knowledge. "To say a notion is imprinted on the mind, and yet at the same time to say that the mind is ignorant of it, and never yet took notice of it, is to make this impression nothing." If anything is in the soul which it has not yet known, it can only be there in this sense, that the soul has the power to know it; but this is true of all truths that can be known, including those which many persons never really know during their whole lives. It is true not only of some, but also of all kinds of knowledge, that the faculty to know is innate, but the actual knowledge is acquired. Now, he who adopts the hypothesis of innate ideas must of course distinguish these from other ideas which are not innate; according to him, therefore, it is not the mere capacity that is innate; and so he must also believe that innate knowledge is, from the beginning, conscious knowledge; for to be in the understanding means, "to be understood." If it be said that these principles are known and assented to by all men when they come to the use of reason, this is neither true nor conclusive, whether understood in the sense that we know them deductively by the use of the reason, or in the sense that we think them as soon as we arrive at the use of reason; we know many other things before them. That the bitter is not sweet, that a rod and a cherry are not the same thing, are known by the child long before he understands and assents to the universal proposition that it is impossible for the same thing to be and not to be. If our immediate assent to a proposition were a sure mark of its innateness, then the proposition that one and two are equal to three, together with numberless others, must be innate. What is true of speculative is also true of practical principles: none of them are innate. No practical principles are so clear, and none are so universally received, as the above-named speculative ones. Moral principles are

as true, but not so evident as speculative principles. The fundamental moral principle, to do as one would be done to, and all other moral rules, require to be proved, and are therefore not innate. In reply to the question, why men should keep their compacts, the Christian will appeal to the will of God, the follower of Hobbes to the will of society, and the heathen philosopher to the dignity of man. The desire of happiness and dread of misery are indeed innate; but these motives of all our actions are only directions taken by the faculty of desire, not impressions on the understanding. It is only these motives that are universally operative; the practical principles of single individuals and of whole nations are not only different, but even opposite; whatever of agreement is observable in them arises from the facts that the following of certain moral rules is recognized as the necessary condition of the permanence of society and of general happiness, and that education, intercourse with one's fellows, and custom produce similarity in moral principles. This latter result is all the more easily produced since the unheeding and unprejudiced minds of children receive indiscriminately all principles which are impressed upon them as truths, just as a piece of blank paper will receive any characters which one may choose to write upon it, and principles thus instilled are accustomed subsequently, when their origin has been forgotten, to be held as sacred, and are accepted without examination. Principles cannot be innate unless the ideas contained in them are innate; the most general principles contain the most abstract ideas, which are the most remote from the thoughts of children and most unintelligible to them, and which can be rightly formed only after one has attained a considerable power of reflection and attention; the conceptions of identity and difference, possibility and impossibility, and the like, are not only not in the child's consciousness at birth, but they are the farthest removed in the time of their development and in nature from the sensations of hunger and thirst, heat and cold, pleasure and pain, which in reality are the child's earliest conscious experiences. Nor is the idea of God innate. Not all nations have this idea; not only the ideas of God held by Polytheists and Monotheists, but also those held by different persons of the same religion and country, are very different. The marks of wisdom and power are so clearly revealed in the works of creation, that no rational being, who attentively considers them, can fail to perceive in them the evidence of God's existence; and when through reflection on the causes of things the conception of God had once been formed, it could not but be so evident to all that it could never be lost.

In the second book of his *Essay*, Locke seeks to show positively whence the understanding receives its ideas. He assumes that the soul is originally like a piece of white and blank paper, having no ideas. These, however, it acquires through *experience*. All our knowledge has its basis in experience, and springs from it. But experience is twofold, being external and internal, or taking the form of *sensation* or of *reflection*, according as its object is the world of external, sensible objects, or the internal operations of our minds. The senses convey from external objects into the mind that which in the latter is the source of the ideas of yellowness, whiteness, heat, cold, softness, hardness, sweetness, bitterness, and, in general, of all so-called sensible qualities. The mind, employed about the ideas already acquired, is the seat of operations, in some of which it is active, in others passive. When the mind considers these activities and states, and reflects on them, the understanding receives another set of ideas, which cannot arise from the things without; such activities are perception, thinking, doubting, believing, reasoning, knowing, and willing. From one of these two sources spring all our ideas.

Man begins to have ideas when the first impression is made on his senses: even before birth he may have had the sensations of hunger and warmth. But previous to the first sensible impression, the soul no more thinks than it does subsequently in dreamless sleep. That the soul always thinks is as arbitrary an assertion as that all bodies are continually in motion.

Some of our ideas are simple, and some are complex. Of simple ideas, some come into our minds by one sense, some by more senses than one, and some by reflection, while some come by both ways, through the senses and through reflection. By the sense of touch we receive the ideas of heat, cold, and solidity, and, further, those of smoothness and roughness, hardness and softness, and others; by the sense of sight, the ideas of light and colors, etc. The ideas which we acquire through more senses than one, namely, through sight and touch, are those of space or extension, figure, rest, and motion. The mind, by reflection, becomes conscious in itself of its perceptions, or thinking, and willing. (Locke dissents from the Cartesian doctrine which co-ordinates thought and volition as forms of *cogitatio*.) The thinking power is called the understanding, and the willing power, the will. The ideas of pleasure or delight, of pain or uneasiness, and of existence, unity, power, and succession are conveyed to the soul both through the senses and through reflection.

Most of the ideas of sensation are no more the likeness of anything existing externally to ourselves than are words the likeness of the ideas for which they stand, and which they serve to call up in the mind. The qualities which are really in bodies themselves, and are inseparable from them in whatever condition, are the following: bulk, figure, number, situation, and motion or rest, of their solid (space-filling) parts. These are called by Locke primary or original qualities, and he would doubtless also term them real qualities. When we perceive primary qualities, our ideas of them are copies of these qualities themselves; we so represent the thing mentally as it is in itself. But bodies have, further, the power, by means of certain primitive qualities, which are not as such perceptible, to work upon our senses in such a manner as to bring forth in us the sensations of colors, sounds, smells, etc. Colors, sounds, etc., are not in bodies themselves, but only in our minds. "Take away the sensation of them; let not the eyes see light or colors, nor the ears hear sounds; let the palate not taste, nor the nose smell; and all colors, tastes, odors, and sounds . . . vanish and cease, and are reduced to their causes, i. e., bulk, figure, and motion of parts." Locke terms colors, sounds, etc., derived or secondary qualities. Ideas of this class are not copies of similar qualities in real objects; they do not more resemble anything in bodies than does the feeling of pain resemble the motion of a piece of steel through any of the sensitive parts of an animal body; they are produced in us by the impulse transmitted from bodies through our nerves to the brain, which is the seat of consciousness and, as it were, the audience-chamber of the soul. How ideas are thus produced in the brain Locke does not inquire, but says only that no contradiction is involved in supposing that God has annexed to certain motions ideas which bear no resemblance to them. Finally, Locke names a third class of qualities in bodies, namely, the powers of certain bodies, by reason of the peculiar constitution of their primary qualities, to make such changes in the bulk, figure, texture, and motion of other bodies as to cause them to operate on our senses differently from what they did before; among these he reckons, *e. g.*, the power of the sun to make wax white, and of fire to melt lead; these qualities are called pre-eminently *powers*.*

* Locke makes unjustifiably a partial concession to the vulgar belief that colors, sounds, etc., as such, are in the bodies which affect our senses, when he calls them "secondary qualities;" for sensations which are not in those bodies, but only in sensitive beings, can in no sense be qualities of those bodies, hence not

In his discussion of the simple ideas which are acquired through reflection, Locke makes many suggestive and fruitful psychological observations. He investigates particularly, under this head, the faculties of perception, retention, discerning, compounding, abstracting, etc. In the faculty of perception Locke recognizes the mark by which animal and man are distinguished from plant. The faculty of retention is the power of preserving ideas, either by continued contemplation or by reviving them after their temporary disappearance from the mind, which is too limited to keep in view at the same time many ideas. This faculty belongs to animals, and belongs to them partly in the same measure as to men. Locke considers it probable that the state of the body exerts a great influence on the memory, since the heat of a fever often effaces images that were apparently firmly fixed in the memory. The comparison of ideas with each other is not effected by animals in so perfect a manner as by man. The power of compounding ideas belongs only in a slight degree to animals. Peculiar to man is the faculty of abstraction, by which the ideas of single objects, separated from all accidental qualities of real existence, such as time and space, and from all accompanying ideas, are raised to the rank and character of universal conceptions of the genera to which they belong, and by which their names become applicable to whatever is included within the number of things agreeing with these conceptions.

The simple ideas are the constituent parts of the complex. Locke reduces complex ideas to three classes: modes, substances, and relations. Modes are complex ideas which do not contain the supposition of subsisting by themselves; they are simple modes or modifications of simple ideas when their elements are similar, and they are mixed modes when their elements are dissimilar. Ideas of substances are such combinations of simple ideas as are used to represent things subsisting by themselves. The ideas of relation arise from the comparison of one idea with another. Among the purely modal ideas belong the modifications of space, time, thought, etc.; as also the idea of power. Our daily experience of alterations in external things, the observation that here a thing ceases to be while another comes into its place, the observation of the constant change of ideas in the mind, depending partly on the impressions of external objects, partly on our own choice, all this leads the human understanding to the conclusion that the same changes which have already been observed will also continue in the future to take place in the same objects, through the same causes and in the same manner; it conceives, accordingly, in one being or object a liability to change in its marks, and in another the possibility of being the agent of that change, and thus it comes upon the idea of a power. The possibility of receiving any change is passive power; that of producing it is active power. We derive the clearest idea of power from attending to the activities of our minds. Internal experience teaches us that by a mere volition we can set in motion parts of the body which were previously at rest. If a substance possessing a power manifests that power by an action, it is called a

secondary qualities, and it can only confuse the reader when Locke, while seeking to demonstrate this, sanctions a mode of expression that implies the error which he aims to destroy, and creates a terminology which, in both the terms chosen, unnaturally blends correct insight with prejudice. As to the substance of Locke's investigation, it has the two special defects, that it assumes without proof the objective reality of extension, and that the question, how sensations are connected with motions in the brain, is dismissed with an appeal to God's omnipotence. Locke regards the soul too much as passive in perception. The inquiry itself respecting the relation of sensuous perception to the objective world of things which affect the senses, in which Locke in large measure follows Descartes, is of fundamental interest; its importance was appreciated by Leibnitz and Kant, but was completely misapprehended by Hegel, who took a distorted view of the Lockian philosophy in general, as also of Kant's Critical Philosophy, because he confounded the distinction between being *per se* and being as modified by our conception of it with that between the essential and the accidental in objects.

cause; that which it brings to pass is called its effect. A cause is that through which something else begins to be; an effect is that whose existence is due to the agency of something other than itself. The mind, being furnished with a great number of simple ideas conveyed to it by sensation and reflection, remarks that a certain number of them always go together; and since we cannot imagine that which is represented by them as subsisting by itself, we accustom ourselves to suppose a substratum in which it subsists and from which it arises; this substratum we call a *substance*. The idea of substance contains nothing but the supposition of an unknown something serving as a support for qualities. We have no clear idea of substance, nor is our idea of material substance more definite than our idea of spiritual substance. We have no ground for supposing that spiritual substances cannot exist; yet, on the other hand, it is not inconceivable that God should endow matter with the power of thought. Besides complex ideas of single substances, the mind has also complex collective ideas of substances, such as army, fleet, city, world; these collective ideas are formed by the soul through its power of combination. Ideas of relation arise from the comparison of several things with one another; among them are the ideas of cause and effect, of relations of time and place, of identity and diversity, of degrees, of moral relations, etc.

In the third book of the *Essay concerning Human Understanding* Locke treats of language, and in the fourth book of knowledge and opinion. Words are signs; common names are common signs for the objects of our ideas. Truth and falsehood are, strictly speaking, only in judgments, and not in single ideas. The principle of contradiction, and others of the like kind, are useful for the art of disputation, but not for knowledge. Propositions that are wholly or in part identical, are uninstructive. We know ourselves by internal perception and God by inference; we infer, namely, from the fact of finite existence that there is a first cause of existence, and from the existence of thinking beings (and at least our own thinking is indubitably certain to us) that there exists a primitive and an eternal thinking being. We thus know our own and God's existence with complete clearness, but our knowledge of the existence of the external world is less clear. Transcending rational knowledge is faith in divine revelations; yet nothing can be regarded as a revelation which is in contradiction with well-ascertained rational knowledge.

The utterances of Locke on ethical, pedagogical, and political questions give evidence of a noble and humane spirit, and they contributed essentially to the mitigation of many of the rigors which tradition had sanctioned. Yet Locke inconsistently denied freedom of conscience to Atheists, and thus himself broke the force of his philosophical arguments for toleration.

Locke's philosophical importance arises chiefly from his investigation of the human understanding, which became the starting-point of the empirical philosophy of the eighteenth century in England, France, and Germany, and was victorious over Scholasticism and Cartesianism, but which was limited in its inroads in Germany chiefly by the Leibnitzian philosophy. Spinoza's Objectivism, which affirmed the order of thoughts to be directly one with the order of things, received, in Locke's inquiry concerning the limits of knowledge in the Subject, its necessary complement. Leibnitz, who wrote in reply to Locke the *Nouveaux Essais sur l'Entendement Humain*, recognized none the less the importance of Locke's inquiry, although he held the examination of the human faculty of knowledge to be not the first problem of philosophy, on the resolution of which all other philosophical inquiries depend, but rather one which could not be treated with success until many other subjects should have been previously disposed of; similar, in the post-Kantian period, was the judgment of Herbart. Kant, on the con-

trary, as the founder of the Critical Philosophy, went back to the persuasion of Locke, that the investigation of the origin and limits of our knowledge is of fundamental consequence for philosophy, but in the conduct of this investigation, although largely influenced by Locke's example, he pursued a course and arrived at results essentially different. Hegel assigned to the investigation of the origin of knowledge only a subordinate importance, denied, in principle, that philosophical knowledge has any limit, held the human reason to be essentially identical with the reason immanent in all reality, and sought not psychologically to discover the origin of ideas, but dialectically to arrive at their meaning and system; that one should not stop with the mere definition of single conceptions, but seek for a connection between them, was a doctrine approved by him, but he held the psychological investigation of the genesis of conceptions in the thinking subject to be but an extrinsic substitute for the true and intrinsic work of philosophy, which consisted in the dialectical development of conceptions. Hegel's judgment would be correct if there were only agreement and not also—as there is in essential respects—discrepancy between (objective) existence and (subjective) consciousness. If agreement in this case is something to be reached by a gradual approach, then the critique of the human faculty of knowledge is of essential philosophical importance, and Locke is unjustly reproached with having substituted an unphilosophical or but slightly philosophical speculation for one truly philosophical; but it can justly be said that he undertook to solve not the whole, but only a part of the problem of philosophy. Against the content of his theory of knowledge it has been especially objected (by Leibnitz and Kant) that experience does not lead to the universal and necessary, whence Leibnitz returned to the theory of innate ideas, and Kant taught the immanence in the Ego of forms of intuition and thought independent of all experience (or "*a priori*"). But it may be questioned whether that which is intended to be explained by these "ideas" and "forms" may not be explained in a truer and more satisfactory manner by the logical laws, according to which the mind arranges and elaborates the material given it by external and internal perception.

Among those who developed farther the theoretical philosophy of Locke in England, George Berkeley (who was born at Killcrin, near Thomastown, in Ireland, on the 12th of March, 1684, appointed Bishop of Cloyne in 1734, and died at Oxford Jan. 14, 1753) stands in the front rank. Berkeley was the founder of a doctrine of universal Immaterialism (Idealism, or Phenomenalism). He not only (after the example of Augustine and of Locke himself) regarded the supposition that a material world really exists as not strictly demonstrable, but as false. There exist, says Berkeley, only spirits and their functions (ideas and volitions). There are no abstract ideas; there is, for example, no notion of extension without an extended body, a definite magnitude, etc. A single or particular notion becomes general by representing all other particular notions of the same kind: thus, for example, in a geometrical demonstration a given particular straight line represents all other straight lines. We are immediately certain of the existence of our thoughts. We infer also that bodies different from our ideas exist. But this inference is deceptive; it is not supported by conclusive evidence, and it is refuted by the fact of the impossibility of explaining the co-working of substances completely heterogeneous. The *esse* of non-thinking things is *percipi*. God calls forth in us our ideas in regular order. That which we call the law of nature is in fact only the order of the succession of our ideas.* Of similar import, but based especially on the

* Near the end of the third dialogue between Hylas and Philonous, Berkeley resumes the substance of his doctrine respecting the nature of the sensible world in the two following propositions, of which he affirms that the one expresses a correct belief of the ordinary human mind, while the other is a scientific proposition. The first proposition (that which the ordinary mind correctly affirms) is that the real table, and all real, unthinking objects generally, are the table and the objects which we see and feel. The second (or scientific) one is, that what we see and feel consists entirely of phenomena, *i. e.*, of certain qualities, such as hardness, weight, shape, magnitude, which inhere in our sensations, and consequently that what we see and feel is nothing but sensation. From the combination of these two propositions it follows that real objects are phenomena of the kind just mentioned, and that consequently there exists in the world nothing beside these objects, whose *esse* is *percipi*, and the percipient subjects. It is, however, very questionable whether the truth of the first two propositions does not depend upon the attribution of two different meanings to the expression: "what we see and feel." If by this expression we understand our sensuous perceptions themselves, then the second proposition is true, but the first not. If, on the contrary, we understand by it the transcendental objects (or things-in-themselves), which so act upon our senses that in consequence of this action perceptions arise in us, then the first proposition is true, but the second false, and it is only by a change of meaning that both are true, whence the syllogism is faulty on account of a "*quaternio terminorum*." Our sensations depend upon a previous affection of the organs of sensation, and this affection depends on the existence of intrinsically real external objects. As there exist other thinking beings beside myself, the active relations between the multitude of thinking beings must be rendered possible by the existence of objectively real, unthinking existences.

doctrine of Malebranche, was the teaching of Arthur Collier (1680–1732). Collier affirms that in 1703 he had already arrived at his theory. The theory is found in an essay existing in MS., and written by him in the year 1708. But the detailed presentation of it in the *Clavis Universalis* appears to give evidence of a considerable influence of Berkeley's *Principles* on the author and his doctrine. Less removed from the doctrine of Locke is that of Bishop Peter Brown (*The Procedure, Extent, and Limits of Human Understanding*, London, 1728). Among the opponents of Locke was John Norris, who, in his *Theory of the Ideal or Intelligible World* (1701), follows Malebranche. Collier makes frequent reference to him. [Also Henry Lee, *Anti-Scepticism*, etc., Lond., 1702.]

Locke's investigations were farther developed in a materialistic sense, especially by David Hartley (1704–1757) and Joseph Priestley, who combined with his materialism the Christian faith (1733–1804).

Locke's younger contemporary, the great mathematician and physicist Isaac Newton (1642–1727), was less associated with specifically philosophical inquiries. His warning to Physics was: "Beware of metaphysics!" Newton applauds the banishment of the "substantial forms" and "occult qualities" of the Scholastics, recommends the mathematico-mechanical explanation of phenomena, and says: "*Omnis philosophiæ difficultas in eo versari videtur, ut a phænomenis motuum investigemus vires naturæ, deinde ab his viribus demonstremus phænomena reliqua.*" Newton demands that analysis always precede synthesis; he expresses the belief that the Cartesians have not sufficiently observed this order, and have thus deluded themselves with mere hypotheses. The analytical method, he explains, proceeds from experiments and observations to general conclusions; it concludes from the compound to the simple, from motions to moving forces, and, in general, from effects to causes, from the particular causes to the more general, and so on to the most general; the synthetic method, on the contrary, pronounces from an investigation of causes the phenomena which will flow from them. Newton censured the formation of hypotheses, but was not able altogether to do without them in his actual investigations. He founded on observed phenomena the doctrine of universal gravitation, its action being proportional to the masses and inversely proportional to the squares of the distances. He taught that the attraction of the planets toward the sun was made up of the sum of degrees of attraction exerted by the parts of the sun. The cause of gravitation was not investigated by Newton. Disciples of Newton reckoned gravity among the primary qualities of bodies; so, for example, Rogerus Cotes, who says, in the preface to the second edition of Newton's

Principia (1713), that gravity is as much one of the primary qualities of all bodies as extension, mobility, and impenetrability (Leibnitz censures this view, *Lettre à Bourguet*, in Erdmann's edition, p. 732). Newton himself, on the contrary, says (in the preface to the second edition of his *Optics*, 1717) that no one must suppose that he considers gravity as one of the essential properties of bodies; he has simply introduced one question bearing on the investigation of the cause of gravity, but only a question, for he has not yet examined the subject in the light of experiments. The "question" alluded to is *Quæstio XXI.* in Book III. of the *Optics*, in which Newton proposes, as an hypothetical explanation of gravitation, the elasticity of the ether, which he supposes to increase in density as its distance from the cosmical bodies increases. Newton rejects in optics the theory of vibration supported by Huygens, on the ground that it is inadequate to explain certain phenomena, and because, in particular, if it were true, it would follow that light could be propagated in the same manner as sound, and consequently one could see as well as hear around a corner. (The answer to this objection is given by A. Helmholtz in his *Physiol. Optik.*) Yet Newton assumes that vibrations are connected with the material rays which are emitted from shining bodies; in particular, such vibrations take place in the organs of sensation themselves. By means of them the forms (*species*) of things are conducted to the brain and into the sensorium, where the substance which perceives is located, and where it perceives the images of things introduced into its presence. The omnipresent God perceives things themselves directly, and without needing the intervention of senses; the world of things is in Him, and infinite space is, as it were, the sensorium of the Deity. (In this latter doctrine Newton adopts Plato's teaching concerning the extension of the world-soul through the whole of the world, substituting, however, with Henry More and other Platonists, God for the soul of the world. God cannot, according to N., be termed the soul of the world, because the world does not stand in the same relation to him as does the human body to the human soul, but is rather to him what a *species* in the human sensorium is to man.) The proof of God's existence is found by Newton in the exquisite art and intelligence which are exhibited to us in the construction of the world, and particularly in the organism of every living being.

Moral Philosophy, in the period succeeding the time of Locke, and chiefly owing to the interest excited by him, was extensively cultivated in England and Scotland. Before Locke's appearance as a philosophical author, his contemporary, Richard Cumberland (1632–1719), had already combated the doctrine of Hobbes, and founded a theory of morals on the basis of good-will, in the work: *De legibus naturæ disquisitio philosophica, in qua elementa philosophiæ Hobbesianæ quum moralis, tum civilis considerantur et refutantur*, Lond., 1672.

Anthony Ashley Cooper, Earl of Shaftesbury (grandson of the elder Sh., 1671–1713), a friend of Locke, defined the essence of morality as consisting in the proper balancing of the social and selfish propensities. To be good or virtuous means to have directed all one's inclinations toward the good of the species or system of which one is a part. Morality is love of goodness for its own sake, so that the good of the system, to which the moral agent belongs, is the immediate object of his inclination; there is no virtue in conduct regulated only by motives founded on the hope of reward or the fear of punishment. The pure love of goodness and virtue is independent in its origin and nature. It is strengthened by a religious belief in the goodness and beauty of the universe, and in the existence of a good and just director of the world; but it degenerates when its possessor begins to court divine favor. (The influence of Shaftesbury's doctrine on the *Theodicée* of Leibnitz and on Kant's doctrine of the relation between

Morals and Religion was considerable).—Samuel Clarke, the divine (1675–1729), a disciple of Newton and Locke and defender of their doctrines especially against Leibnitz, taught that the essence of virtue consisted in treating things conformably to their peculiar qualities (according to the "fitness of things," *aptitudo rerum*), so that each shall be employed in its proper place in the harmony of the universe, and so in conformity with the will of God. In contradistinction to Clarke and Shaftesbury, J. Butler (1692–1752) asserted in his *Sermons* (1726) that moral approval or disapproval was not determined by the preponderance of happiness or misery in the consequences of any action. We disapprove falsehood and injustice, says Butler, independently of any consideration or balancing of consequences; man's happiness in his present state is not the final end to be aimed at.—William Wollaston (1659–1724) laid down the principle that every action is good which is the expression of a true thought. Francis Hutcheson (born in Ireland, 1694, and from 1729 a Professor at Glasgow, *ob.* 1747) defined moral goodness as consisting in the right relation of the various propensities to each other, and argued that it had its basis in a moral sense or feeling peculiar to man.—Of the later Scottish moralists, Henry Home, the æsthetic writer (1696–1782), and Adam Ferguson (1724–1816), who defined virtue as the progressive development of human nature into spiritual perfection, are worthy of especial mention. Man is by nature a member of society; his perfection consists in his being a worthy part of the whole to which he belongs. To esteem virtue is to love men. Thus Ferguson seeks to combine the principles of self-conservation (self-love), sociability (benevolence), and perfection (self-esteem). Adam Smith (who may be mentioned at this stage on account of the relation of his ethics to that of the other moralists just mentioned;—1723–1790), a friend of David Hume, and especially celebrated as a political economist, is also of importance in the history of moral philosophy. He regards sympathy as the principle of morals (in this agreeing with Hume). Man has a natural disposition to sympathize with the states, feelings, and actions of others. Whenever the unprejudiced spectator, reflecting on the motives of another, is able to approve his conduct, then that conduct is to be regarded as morally good, otherwise as morally faulty. The fundamental requirement of Morals is: Act in such a manner that the unprejudiced observer can sympathize with thee. (Smith has rather analyzed the cases in which we can approve or disapprove of an action, than ascertained the ultimate grounds of sympathy or antipathy.)—William Paley (1743–1805) belongs also among the noteworthy English Moralists. (His *Principles of Moral and Political Philosophy* [London, 1785, etc.] have been translated into German by Garve, Frankf. and Leips., 1788.) Duty, according to Paley, implies in all cases a command issuing from a superior, who has attached to obedience or disobedience pleasure or pain, and the supreme law-giver, whose commands are the basis of duty, is God. But what is duty is determined by the principle of universal happiness. In order to recognize by the light of reason whether an action is agreeable to the will of God or not, we need only inquire whether it increases or diminishes the general happiness. Whatever is on the whole advantageous, is right.

John Toland (1670–1722), originally a believer in revelation, approximated in his writings more and more toward Pantheism. His *Letters to Seneca* are accompanied by a *Confutation of Spinoza*, in which he asserts the substantial diversity of soul and body. In his *Nazarenus* he terms the earliest Christians Jewish Christians, who observed the law, and were consequently similar to the later Nazarenes [Nazaræans] or Ebionites, who were excluded from the Church as heretics. The Gentile Christians are charged with a partial introduction of their heathenish superstitions into Chris-

tianity. Toland, Anthony Collins, the free-thinker (1676–1729), Tindal, the Rationalist (1656–1733), and other deists (of whom Lechler treats fully in the *Gesch. des engl. Deismus*, Stuttg. and Tüb., 1841, and Leland in his *View of the Principal Deistical Writers*) rejected the biblical Christianity of Locke, and maintained the faith founded on reason.

§ 117. The founder of the German philosophy of the eighteenth century is Gottfried Wilhelm von Leibnitz (1646–1716). With Descartes and Spinoza, but in opposition to Locke, Leibnitz adopts the dogmatic form of philosophizing, *i. e.*, he has an immediate faith in the power of human thought to transcend, by the aid of perfect clearness and distinctness in its ideas, the limits of experience and attain to truth. But he oversteps as well the dualism of Descartes as the monism of Spinoza through the recognition in his Monadology of a gradation of beings. Monad is the name given by Leibnitz to simple unextended substance, that is, a substance which has the power of action; active force (like to the force of the strained bow) is the essence of substance. The monads are what may truly be called atoms; they are distinguished from the atoms of Democritus, partly by the fact of their being only mere points, and partly by their active forces, which consist in ideas. The atoms of the ancients differed from one another in magnitude, figure, and position, but not qualitatively or in internal character; the monads of Leibnitz, on the contrary, are qualitatively differentiated by their ideas. All monads have ideas, but the ideas of the different monads are of different degrees of clearness. Ideas are clear when they render it possible to distinguish their objects; otherwise they are obscure. They are plain or distinct when they enable us to distinguish the parts of their objects; otherwise they are indistinct or confused. They are adequate, finally, when they are absolutely distinct, *i. e.*, when through them we can cognize the ultimate or absolutely simple parts of their objects. God is the primitive monad, the primitive substance; all other monads are its fulgurations. God has none but adequate ideas. The monads which are thinking beings or spirits, like human souls, are capable of clear and distinct ideas, and can also have single adequate ideas; as rational beings, they have the consciousness of themselves and of God. The souls of animals have sensation and memory. Every soul is a monad, for the power possessed by every soul to act on itself proves its substantiality, and all substances are monads. That which appears to us as a body is in reality an aggregate of many monads; it is only in consequence of the confusion in our sensuous perceptions that this plurality presents

itself to us as a continuous whole. Plants and minerals are, as it were, sleeping monads with unconscious ideas; in plants these ideas are formative vital forces. Every finite monad has the clearest perceptions of those parts of the universe to which it is most nearly related; from its stand-point it is a mirror of the universe. To our sensuous apprehension the order of the monads appears as the spatial and temporal order of things; space is the order of co-existing phenomena, and time is the order of the succession of phenomena. The succession of ideas in each monad is determined by an immanent causality; the monads have no windows through which to receive in influences from without. On the other hand, the variation in the relations of monads to each other, their motion, combination, and separation, depend on purely mechanical causes. But between the succession of ideas and the motions of the monad there subsists a harmony pre-determined (pre-established) by God. The soul and body of man agree, like two clocks, originally set together and moving at exactly the same rate. The existing world is the best of all possible worlds. The moral world, or the divinely governed kingdom of spirits, is in constant harmony with the physical world.—Christian Wolf (1679–1754), adopting the theories of Leibnitz, combined them with ideas derived particularly from Aristotle, modified them partially, systematized them, and provided them with demonstrations, whereby he founded a comprehensive system of philosophy. The Leibnitzo-Wolfian philosophy became more and more spread over Germany during the eighteenth century until Kant's time, and in connection with other philosophemes, especially those of Locke, ruled the schools and subserved the ends of popular enlightenment.

Of the philosophical writings of Leibnitz, excepting his earliest dissertations (*De principio individui*, Leipsic, 1663, republished with a critical introduction by G. E. Guhrauer, Berlin, 1837; *Specimen quæstionum philosophicarum ex jure collectarum*, *ib.*, 1664: *Tractatus de arte combinatoria, cui subnexa est demonstratio existentiæ Dei ad math. certitudinem exacta*, Leips., 1666, Frankf. on the M., 1690), only the *Théodicée* (Amst., 1710, etc., in Lat., Cologne, 1716, Frankf., 1719, etc., in German, with Fontenelle's *Eloge*, Hanover, 1720, etc., German transl. by Gottsched, 5th ed., Han. and Leips., 1763) appeared during his lifetime as an independent work; all the more numerous, however, were the papers which Leibnitz published, from the year 1684 on, in the journal begun by Otto Mencken in the year 1682: *Acta Eruditorum Lipsiensium*, and, from 1691 on, in the *Journal des Savans*. The correspondence of Leibnitz was very extensive, and in it he developed many sides of his doctrine, which, in the works published by him, had not been discussed. Soon after his death various letters and papers, till then unprinted, were published, in particular: *A Collection of papers, which passed between the late learned Mr. Leibnitz and Dr. Clarke in the years* 1715 *and* 1716, *relating to the principles of natural philosophy and religion*, by Sam. Clarke, London, 1717: the same in French: *Recueil de diverses pièces sur la philosophie, la religion, etc., par Mr. Leibnitz, Clarke, Newton* (*par des Maizeaux*), Amst., 1719, 2. éd. 1740, and in German, with a preface by Wolf, ed. by Joh. Heinr. Köhler, Frankf., 1720.—*Leibnitii otium Hannoveranum sive Miscellanea G. W. Leibnitii, ed. Joach. Fr. Feller*, Leips. 1718, and as a second collection: *Monumenta varia inedita*, Leips., 1724. In the journal, "*L'Europe Savante*," Nov. 1718, Art. vi., p. 101 sqq., was first published the essay (written probably in 1714): *Principes*

le la nature et de la grâce, fondés en raison, which was afterwards included by Des Maizeaux, in 1719, in the second volume of the *Recueil* above named, and by Dutens, in 1768, in the collection which will be mentioned below. With this essay is not to be confounded L.'s sketch of his system, which he wrote for Prince Eugene of Savoy, in 1714, and which was first published, in a German translation by Joh. Heinr. Köhler, under the title: *Des Herrn Gottfried Wilhelm von Leibnitz Lehrsätze über die Monadologie, ingleichen von Gott, seiner Existenz, seinen Eigenschaften, und von der Seele des Menschen*, Frankfort, 1720 (new edition by J. C. Huth, *ib.* 1740); the same sketch, translated from German into Latin, was printed in the *Act. Erud., Suppl.*, vol. vii., Leips., 1721, and again, with comments and remarks by Mich. Gottl. Hansche, at Frankf. and Leips., 1728, and in Dutens' collection, under the title: *Principia philosophiæ seu theses in gratiam principis Eugenii conscriptæ*. The original French text was first published by Erdmann, from the MS. preserved in the Royal Library at Hanover, in his edition of L.'s *Opera Philosophica*, 1840.—*Leibnitii epist. ad diversos, ed. Chr. Kortholt*, Leips., 1734–42. *Commercium epistolicum Leibnitianum ed. Joh. Dan. Gruber*, Han. and Gött, 1745, as an introduction to which Gruber had published in 1737 a *Prodromus commercii epistolici Leibnitiani*, consisting of the correspondence between Boineburg and Conring, which contains many statements concerning L.'s education and youthful writings. *Œuvres philosophiques latines et françaises de feu Mr. Leibniz, tirées de ses manuscrits qui se conservent dans la bibliothèque royale à Hannovre, et publiées par R. E. Raspe, avec une préface de Kästner*, Amst. and Leips., 1765; the same in German, with additions and notes by J. H. F. Ulrich, Halle, 1778–80. Of especial importance among the contents of this collection of Raspe's are the previously unpublished *Nouveaux essais sur l'entendement humain*, an extended polemical work against Locke, written in 1704; this collection contains further: *Remarques sur le sentiment du P. Malebranche qui porte que nous voyons tout en Dieu, concernant l'examen que Mr. Locke en a fait; Dialogus de connexione inter res et verba; Difficultates quædam logicæ; Discours touchant la méthode de la certitude et l'art d'inventer; Historia et commentatio characteristicæ universalis, quæ simul sit ars inveniendi*. Soon after the publication of this collection followed the Dutens edition of Leibnitz' works—which, however, did not include the pieces published by Raspe:—*Gothofredi Guilielmi Leibnitii opera omnia, nunc primum collecta, in classes distributa, præfationibus et indicibus ornata studio Ludovici Dutens, tom. VI.*, Geneva. 1768, vol. I.: *Opera theologica*, II.: *Log., Metaph., Phys. gener., Chym., Medic., Botan., Histor. natur., Artes*, III.: *Opera mathematica*, IV.: *Philos. in genere et opuscula Sinenses attingentia*, V.: *Opera philologica*, VI.: *Philologicorum continuat. et collectanea etymologica*. Several publications complementary to the above have since been made: *Commercii epistolici Leibnitiani typis nondum evulgati selecta specimina, ed.* J. G. H. Feder, Hanov., 1805. *Leibnitii systema theologicum* (written in a conciliatory spirit, perhaps about the year 1686), with a French translation, first published at Paris in 1819, in Lat. and Germ., 2d ed., Mayence, 1820, in Lat. and Germ. by Carl Haas, Tübingen, 1860. Leibnitz' German writings have been edited by G. E. Guhrauer, Berlin, 1838–40. A new complete edition of L.'s philosophical writings has been set on foot by Joh. Ed. Erdmann, in which much unedited matter from MSS. in the Royal Library at Hanover is included, together with notices concerning the date of particular letters, shorter treatises and works: *Godofr. Guil. Leibnitii opera philos. quæ exstant Latina, Gallica, Germanica omnia*, Berlin, 1840. *Œuvres de Leibniz, nouvelle édition, par M. A. Jacques*, 2 vols., Paris, 1842. A complete edition of all of the writings of Leibnitz has been begun by Georg Heinrich Pertz: first series, Hist., Vols. I.–IV., Hanover, 1843–47; second series, Philos., Vol. I.: Correspondence between Leibnitz, Arnauld, and the Landgrave Ernst von Hessen-Rheinfels, edited from the MSS. of the R. Libr. at Hanover by C. L. Grotefend, Hanover, 1846; third series, Math., ed. by C. J. Gerhardt, Vols. I.–VII., Berlin and (from Vol. III. on) Halle, 1849–63. The mathematical works also contain considerable philosophical matter, *e. g.*, in Vol. V.: *In Euclidis πρῶτα*, and in Vol. VII.: *Initia rerum mathematicarum metaphysica*. Gerhardt also published in 1846 the short work, written by L. not long before his death: *Historia et origo calculi differentialis*. The *Réfutation inédite de Spinoza par Leibniz*, cited above (in the literature relating to Spinoza), has been published by A. Foucher de Careil in *Lettres et opuscules inédits de Leibniz*, Paris, 1854–57. The same editor is now publishing the *Œuvres de Leibniz publiées pour la pr. fois d'après les mscr. originaux*, Paris, 1859 seq., 2d ed., Vol. I. seq., 1867 seq. (Vols. I. and II.: *Lettres de L., Bossuet, Pelisson, Molanus et Spinola, Ulrich, etc., pour la réunion des protestants et des catholiques*; Vols. III. and IV.: Historical and political writings; Vol. V.: Plan of an Egyptian expedition; Vol. VI., Par. 1865: Minor polit. writings). The correspondence between Leibnitz and Christian Wolf has been edited by C. J. Gerhardt, Halle, 1860. A selection of the shorter philos. papers, translated into German and accompanied with introductions, has been published under the direction of Gustav Schilling, and bearing the title: *L. als Denker*, Leips., 1863. A new edition of works by Leibnitz, based on his remains in MS. in the R. Libr. at Hanover, has been started by Onno Klopp, Hanover, 1864, seq. (first series: Hist.-polit. and polit. writings, Vols. I.–IV., 1864–66). A recent publication is the *Œuvres philosophiques de L., avec une introduction et des notes, par* P. Janet, 2 vols., Paris and St. Cloud, 1866.

With respect to the history of the philosophical development of Leibnitz, the most instruction is to be derived from his own utterances, especially as contained in the introduction to his *Specimena Pacidii* (*Op. ph., ed.* Erdm. p. 91), and in letters to Remond de Montfort and others. Of his life, writings, and doctrine

treat in particular: Jo. Geo. von Eckhart (Leibnitz's secretary and afterwards his colleague in preparing the historiography of the House of Brunswick), whose biographical notices were first published by Von Murr in the *Journal zur Kunstgesch. u. allg. Litt.*, VII., Nuremberg, 1779, but which, communicated to Fontenelle in MS., were employed by the latter in preparing his *Eloge de Mr. de Leibnitz* (read in the Paris Acad. of Sciences, 1717, printed in the *Hist. de l'acad. des sc. de Paris* and in the collection of *Eloges* by Fontenelle; published in German translation by Eckhart in the German ed. of the *Théodicée* of the year 1720, and, with notes by Baring, in the edition of 1735; cf. Schleiermacher, *Ueber Lobreden im Allgemeinen und die Fontenelle'sche auf Leibniz insbesondere*, in Schleiermacher's *Werke*, III., 3, p. 66 seq.). *Elogium Leibnitii* (by Chr. Wolf, based on reports by Eckhart), in the *Acta Erud.*, July, 1717, to which, in 1718, there appeared in the "*Otium Hannoveranum*" a "*Supplementum vitæ Leibn. in actis erud.*" by Feller. *Histoire de la vie et des ouvrages de Mr. Leibniz par* M. L. de Neufville (Jancourt), in the Amsterdam edition of the *Théodicée*, 1734. Karl Günther Ludovici, *Ausführlicher Entwurf einer vollständigen Historie der Leibnizischen Philosophie*, Leipsic, 1737. Lamprecht, *Leben des Herrn von L.*, Berlin, 1740, translated into Italian and enlarged with notes relating especially to L.'s sojourn in Rome in 1689, by Joseph Bansotti. *Geschichte des Herrn von L., aus dem Franz. des Ritters von Jancourt*, Leips., 1757. *Eloge de L., qui a remporté le prix de l'acad. de Berlin, par* Bailly, Berl., 1769. *Lobschrift auf Gottfr. Wilh. Freih. v. L. in der K. deutschen Ges. zu Göttingen vorgel. von* Abr. Gotthelf Kästner, Altenburg, 1769. Mich. Hissman, *Versuch über das Leben L.'s*, Münster, 1783. Also Rehberg, in the *Hannöversche Magazin* for 1787, and Eberhard, in the *Pantheon der Deutschen*, II., 1795, have presented accounts of the life of Leibnitz. In more recent times Edward Guhrauer has furnished a full biography: *G. W. Freih. v. L.*, 2 vols., Breslau, 1842, with additions, 1846; in English by Mackie, Boston, 1845. Cf., among others, several addresses and papers by Boeckh (*Ueber Leibniz u. d. deutschen Akademien, über L.'s Ansichten von der philologischen Kritik, über L. in s. Verhältniss zur positiven Theol.*, etc., in Boeckh's *Kl. Schr., hrsg. v.* Ferd. Ascherson, Vol. II., Leipsic, 1859, and Vol. III., *ib.*, 1866), Trendelenburg (in the *Monatsber. der Akad. der Wiss.* and in Tr.'s *Hist. Beitr. zur Philos.*, Vol. II., Berlin, 1855, and Vol. III., *ib.*, 1867), Onno Klopp (*Das Verhältniss von L. zu den kirchl. Reunionsversuchen in der zweiten Hälfte des 17. Jahrh.*, in the *Zeitschr. des hist. Vereins für Niedersachsen*, 1860; *Leibn. als Stifter gelehrter Gesellschaften, Vortrag bei der Philologen-Versammlung zu Hannover*, Gött., 1864; *L.'s Plan zur Gründung einer Societät der Wiss. in Wien*, in the *Archiv für Kunde österreich. Geschichtsquellen*, and also published separately, Vienna, 1868; *L.'s Vorschlag einer franz. Expedition nach Aegypten*, Hanover, 1864; the works relating to this subject have been edited by Foucher de Careil, in *Œuvres de L.: Projet d'expédition d'Egypte, présenté par L. à Louis XIV.*, Paris, 1864, and Klopp, Hanover, 1864), and K. G. Blumstengel (*L.'s ägyptischer Plan*, Leipsic, 1869).

Works on the Leibnitzian doctrine are—in addition to the larger historical works, in which this is discussed, and among which the presentations of Erdmann (*Versuch einer wiss. Darstellung der Gesch. der neueren Philosophie*, Vol. II., Part 2d: *Leibniz u. die Entwickelung des Idealismus vor Kant*, Leipsic, 1842) and of Kuno Fischer (*Gesch. der neuern Philosophie*, Vol. II.: *Leibniz u. seine Schule*, 2d revised edition, Heidelberg, 1867) deserve especial mention—the following: Ludwig Feuerbach, *Darstellung, Entwicklung und Kritik der L.'schen Philosophie*, Ansbach, 1837, 2d Ed., 1844; Nourrisson, *La philosophie de L.*, Paris, 1860, and many earlier and more recent works, which treat of single phases of the Leibnitzian philosophy, such as: Georg Bernhard Bilfinger, *Comm. de harmonia animi et corporis humani præstabilita, ex mente Leibnitii*, Frkf., 1723, 2d ed., 1735, *De origine et permissione mali, præcipue moralis*, Frkf., 1724. Fr. Ch. Baumeister, *Hist. doctrinæ de optimo mundo*, Gorlitz, 1741. G. Plouequet, *Primaria monadologiæ capita*, Berl., 1748. De Justi, *Diss. qui a remporté le prix proposé par l'acad. des sc. de Prusse sur le système des monades*, Berl., 1748. (Reinhard), *Diss. qui a remporté le prix prop. par l'acad. des sc. de Prusse sur l'optimisme*, Berl., 1755. Kant, *Ueber den Optimismus*, Königsberg, 1759 (with which, however, should be compared Kant's later work on the Failure of all Attempts to found a Theodicy, written from the critical stand-point). Ancillon, *Essai sur l'esprit du Leibnitianisme*, in the Transactions of the ph. cl. of the Acad. of Sciences, Berlin, 1816. Maine de Biran, *Exposition de la doctrine philos. de L., composée pour la Biographie Universelle*, Paris, 1819. H. C. W. Sigwart, *Die L.'sche Lehre von der prästabilirten Harmonie in ihrem Zusammenhange mit früheren Philosophemen betrachtet*, Tübingen, 1822. G. E. Guhrauer, *Leibnitii doctrina de unione animæ et corporis* (Inaug. Diss.), Berlin, 1837. Karl Moritz Kahle, *L.'s vinculum substantiale*, Berlin, 1839. *G. Hartensteinii commentatio de materiæ apud Leibnitium notione et ad monadas relatione* (on the occasion of the celebration of the 21st of June, 1846, the second centennial anniversary of the birth of Leibnitz), Leipsic, 1846. R. Zimmermann, *L. und Herbart, eine Vergleichung ihrer Monadologien*, Vienna, 1849; *Das Rechtsprincip bei L.*, Vienna, 1852; *Ueber L.'s Conceptualismus, ib.*, 1854 (from the Reports of the Vienna Academy). F. B. Kvet, *L.'s Logik; L. und Comenius*, Prague, 1857. C. A. Thilo treats of the religious philosophy of L. in the *Zeitschr. f. ex. Philos.*, Vol. V., 1864, pp. 167–204. Trendelenburg, *Ueber L.'s Entwurf einer allgemein. Charakteristik*, and *Ueber das Element der Definition in L.'s Philosophie*, in the Papers of the Berlin Acad. of Sc., and in Vol. III. of Tr.'s *Hist. Beitr. zur Philos.*, Berlin, 1867, pp. 1–47 and 48–62. Emile Saisset, *Discours sur la philos. de L.*, Paris, 1857. A. Foucher de Careil, *L., la philos.*

juive et la cabbale, Paris, 1861; *L., Descartes et Spinoza, avec un rapport par Victor Cousin*, Paris, 1863. J. Bonifas, *Etude sur la théodicée de L.*, Paris, 1863. Oscar Svahn, *Akad. Abh. über die Monadenlehre*, Lund, 1863. Hugo Sommer, *De doctrina, quam de harmonia præstabilita Leibnitius propos.*, Göttingen, 1866. Dan. Jacoby, *De Leibnitii studiis Aristoteleicis (inest inedituum Leibnitianum*, Inaug. Dissert.), Berl., 1867. A. Pichler, *Die Theologie des Leibnitz*, Munich, 1869. Jos. Durdik, *Leibn. u. Newton*, Halle, 1869. Otto Caspari, *Leibnitz' Philosophie*, Leipsic, 1870.

Concerning L. and the Leibnitzian school, with special reference to Kant's Critique, W. L. G. Frhr. von Eberstein, a disciple of Leibnitz, treats in his *Versuch einer Geschichte der Logik und Metaphysik bei den Deutschen von Leibnitz bis auf die gegenwärtige Zeit*, Halle, 1794–99.

On the earlier period in the history of the fortunes of the Leibnitzian philosophy compare the above-cited (p. 35) work by C. G. Ludovici: *Ausführlicher Entwurf einer vollständigen Historie der Leibnitzischen Philosophie*, 2d ed., Leips., 1737, and also the *Sammlung und Auszüge der sämmtlichen Streitschriften wegen der Wolff'schen Philosophie* (Leips., 1737), and *Neueste Merkwürdigkeiten der Leibnitz-Wolff'schen Philosophie* (Leips., 1738), by the same author; and on the period extending till near the end of the 18th century cf. the prize essays—which will be again referred to below, and which relate especially to the contest between Leibnitzianism and Kantianism—by Joh. Christoph Schwab, C. L. Reinhold, and Joh. Heinr. Abicht, on the question, and published under the title: *Welche Fortschritte hat die Metaphysik seit Leibnitzens und Wolff's Zeiten in Deutschland gemacht?* Berlin, 1796. Besides the discussions of the subject in works specially relating to the history of philosophy, many of the histories of the national literature of Germany may be consulted in reference to the relation of philosophy in the 18th century to general culture, and also especially Schlosser's *Gesch. des 18 Jahrhunderts*, and Frank's *Gesch. der protest. Theologie* (2d Part, Leips., 1865), and other similar works.

On the life of Christian Wolff compare Joh. Chr. Gottsched, *Histor. Lobschrift auf Christian Freiherrn von Wolff*, Halle, 1755, and others; an autobiography of W. was published by Wuttke at Leipsic in 1841. Ed. Zeller writes of W.'s expulsion from Halle in the *Preuss. Jahrb.* X., 1862, p. 47 seq., reprinted in Zeller's *Vortr. u. Abh. geschichtlichen Inhalts*, Leips., 1865, pp. 108–139.

Moses Mendelssohn, *Briefe über die Empfindungen*, Berlin, 1755; *Abh. über die Evidenz in den metaphysischen Wissenschaften*, Berlin, 1764, 2. Aufl. 1786; *Phädon oder über die Unsterblichkeit der Seele* (a modernization of the *Phædo* of Plato), Berlin, 1767, etc.; *Jerusalem oder über religiöse Macht und Judenthum*, Berlin, 1783; *Morgenstunden oder über das Dasein Gottes*, Berlin, 1785, etc.; *Mos. Mend. an die Freunde Lessings*, Berlin, 1786 (in reply to F. H. Jacobi's work, "*Ueber die Lehre des Spinoza*," in which it was asserted that Lessing was a Spinozist), and other works. His complete works were published by his grandson, George Benjamin M., in 7 vols., Leipsic, 1843–45. On his philosophical and religious principles Kayserling has written (Leips., 1856); on his attitude with reference to Christianity, C. Avenfeld (Erlangen, 1867); on his place in the history of Æsthetics, Gustav Kanngiesser (Frankfort on the M., 1868); on his life, his works, and his influence on modern Judaism, Moses Schwab (Paris, 1868); cf. also the article by R. Q. (Quäbicker?) on *Moses Mendelssohn und die deutsche Aufklärungsphilos. des 18. Jahrh.*, in Gelzer's *Monatsbl. für innere Zeitgeschichte*, Vol. 33, No. 1, 1869.

On Lessing and his times compare, in addition to works already cited, *ad* §§ 115 and 117, especially the works on the life and works of Lessing by Danzel and Guhrauer (Leips., 1850–54), and Adolf Stahr (Berlin, 1859). [English translation of Stahr's *Lessing* by E. P. Evans, Boston (Spencer), 2 vols., 1866; cf. J. R. Lowell, in the North Am. Review, Vol. 104, April, 1867, pp. 541–586.—*Tr.*] Cf. also Schwarz, *Gotthold Ephraim Lessing als Theolog dargestellt, ein Beitrag zur Geschichte der Theolog. im 18 Jahrh.*, Halle, 1854; Roh. Zimmermann, *Leibniz und Lessing* (from the Reports of the Vienna Acad. of Sciences), Vienna, 1855; Eberhard Zirngiebl, *Der Jacobi-Mendelssohn'sche Streit über Lessing's Spinozismus* (*Inaug.-Diss.*), Munich, 1861; Joh. Jacoby, *Lessing der Philosoph*, Berlin, 1863, and, in reply to Jacoby, *Lessing's Christenthum und Philosophie* (anonymous publication), Berlin, 1863; Wilh. Dilthey, *Ueber Gotthold Ephraim Lessing*, in the *Preuss. Jahrb.* Vol. 19, Nos. 2 and 3, 1867; Constantin Rössler, *Neue Lessing-Studien: die Erziehung des Menschengeschlechts*, in the *Preuss. Jahrb.*, XX., 3, Sept., 1867; Wilh. Dilthey, *Zur Seelenwanderungslehre Lessing's*, *ib.*, October, 1867; E. Fontanes, *Le Christianisme moderne, étude sur Lessing*, Paris, 1867; J. F. T. Gravemann, *Ueber Lessing's Laokoon* (*Promotionsschrift*), Rostock, 1867.

Gottfried Wilhelm Leibnitz (Lubeniecz) was born at Leipsic on the 21st of June (old style; = July 1st, new style), 1646. His father, Friedrich L., a jurist, and from 1640 on Professor of Moral Philosophy at Leipsic, died in 1652. At the Nicolai School and at the University of Leipsic, which he entered at Easter in 1661, Jacob Thomasius (born at Leipsic in 1622, ob., 1684, father of Christian Thomasius, the celebrated jurist and legal philosopher), who was versed especially in the history of ancient

philosophy, was the most distinguished professor. Without holding Aristotle and the Scholastics, as also Plato and Plotinus, in low estimation, he yet found more complete satisfaction in Descartes; but at a later period he borrowed more from the former. Leibnitz defended, in May, 1663, under the presidency of Jacob Thomasius, a disquisition written by him on the principle of individuation (*De principio individui*), in which he had declared for the nominalistic doctrine. In the summer of 1663 he studied at Jena, devoting his attention especially to mathematics under Erhard Weigel. Toward the end of the year 1664 appeared at Leipsic his *Specimen difficultatis in jure seu quæstiones philosophicæ amœniores ex jure collectæ*, and in 1666 his *Ars combinatoria*. The degree of a doctor of law, which he sought to obtain at Leipsic in 1666, was denied him at that time on account of his youth; in order not to give him the precedence before older suitors for the doctorate and for the right therewith connected to positions as assessors, he was put off for a later graduation; but the degree was given him at Altdorf, where, on the 5th of November, 1666, he defended his thesis, entitled *De casibus perplexis in jure;* in this paper he demands that, where the positive laws are indefinite, decisions be made according to the principles of natural justice. Having no inclination for the work of an academical instructor, which he might have entered upon at Altdorf, he sought in the next succeeding period farther to educate himself by intercourse with distinguished scholars and statesmen. In Nuremberg he came in contact with alchemists. Of greatest importance for him was his association with Baron Johann Christian von Boineburg, who up to the year 1664 had been first privy councillor (minister) of Johann Philipp, Elector of Mayence, and still possessed great influence. Leibnitz dedicated to the Elector the work (written by him during the journey from Leipsic to Altdorf in 1666, and) entitled: *Methodus nova discendæ docendæque jurisprudentiæ, cum subjuncto catalogo desideratorum in jurisprudentia*, Frank., 1667. In the *Catalogus Desideratorum* he followed the lead of Bacon in the *De Augmentis Scientiarum*. A treatise against Atheism, composed by Leibnitz in 1668, appeared under the title: *Confessio naturæ contra atheistas*, with Spizelius' *Epistola ad Ant. Reiserum de eradicando atheismo*, Augsburg, 1669. With Herm. Andreas Lasser, councillor at Mayence, Leibnitz labored in 1668 and '69, for the improvement of the *Corpus Juris*. At the instance of Boineburg, Leibnitz prepared a new edition of Nizolius' *De Veris Principiis et Vera Ratione philosophandi contra pseudo-philosophos* (Parma, 1553, see above, § 3, p. 11), with notes and essays (in particular, a *Diss. de stilo philosophico Marii Nizolii*), which was printed at Frankfort in 1670 and in 1674. By Boineburg, who, himself a Protestant convert to Catholicism, had been active at Rome as early as 1660 for a reunion of the Protestants with the Catholics, Leibnitz, during his stay at Mayence, had already been induced to favor the efforts for reunion, in which Royas de Spinola (*ob.* 1695) was especially zealous, but it was not till later that Leibnitz took an important part in them. At the wish of Boineburg, Leibnitz wrote in 1669 his *Defensio Trinitatis per nova reperta logica contra epistolam Ariani*, in which he sought rather to refute the arguments of Wissowatius, the Socinian, than to develop a positive counter-proof. In the summer of 1670, L. became a councillor in the superior court of revision, the highest tribunal of the Electorate. In March, 1672, he commenced a journey to Paris and London. He went to London in 1673, and returned in March of the same year to Paris, where he tarried until October, 1676, a part of the time as the tutor of Boineburg's son. In the year 1676, while in Paris, L. received from Duke Johann Friedrich von Braunschweig-Lüneburg and Hanover an appointment as librarian at Hanover. He journeyed from Paris by way of London and Amsterdam to Hanover, where in December, 1676, he entered upon the duties of his

office. Among the scholars with whom his sojourn abroad brought him into communication the most important were, at Paris, Arnauld, the Cartesian; Huygens, the Dutch mathematician and physicist; Tschirnhausen, the German mathematician and logician, through whom he became acquainted with some of the philosophical doctrines of Spinoza, and—provided that Tsch. did really communicate to him Newton's letter of Dec. 10, 1672, to Collins concerning Barrow's method with tangents—with mathematical theorems of Newton relative to the calculus of fluctions; and, at London, Oldenburg, secretary of the Academy of Sciences, also a friend of Spinoza, Boyle the chemist, and Collins the mathematician (whom he first saw, however, only in 1676). Through Oldenburg's intervention Leibnitz also exchanged letters with Newton, who was then in Cambridge. On the occasion of his passage through Holland, Leibnitz visited Spinoza, with whom he had already corresponded, in October, 1671, concerning an optical question. During his first residence at Paris, in the year 1672, Leibnitz laid before Louis XIV. his plan for the conquest of Egypt, whereby the power of France was to be increased, but at the same time the attention of France was to be diverted from German affairs, and also the power of the Turks, which was still by no means inconsiderable, was to be broken. A short sketch of this plan (which originated with Boineburg) was sent to Paris towards the end of the year 1671, drawn up by Leibnitz, under the title: *Specimen demonstrationis politicæ: de eo, quod Franciæ intersit imprasentiarum seu de optimo consilio, quod potentissimo Regi dari potest; concluditur expeditio in Hollandiam Orientis seu Ægyptum* (published by Onno Klopp in his edition of the works of Leibnitz, 1st series, Vol. II., p. 100 seq.); this was followed by L.'s principal work respecting this matter: *De expeditione Ægyptiaca regi Franciæ proponenda justa dissertatio*, and by the more concise presentation of the same views in the *Consilium Ægyptiacum*. (Of the "*Justa Dissertatio*" the English ministry procured in 1799 a copy from Hanover, and an abstract of it was published in an English pamphlet in 1803; of the *Consilium Ægyptiacum*, the French General Mortier caused a copy to be given him at Hanover in 1803, and sent it to Paris, from which it was copied into Guhrauer's "*Kurmainz in der Epoche von* 1672;" parts of the larger memorial were published by Foucher de Careil in Vol. V. of his edition, but the whole was first published by Onno Klopp, in his ed. of works of Leibnitz, in 1864).

Newton had, in 1665 and 1666, been in possession of the "Arithmetic of Fluxions," discovered and so named by him, and had soon afterwards communicated it, in its fundamental features and in its application to the problem of tangents, to a few individuals. This he did partly through an opuscule written by him in 1671, and partly and especially through a letter to J. Collins, dated Dec. 10, 1672. But he first published the theory in his *Principia mathematica philosophiæ*, which was finished in 1686, and appeared in print in 1687. In the year 1676 Leibnitz (perhaps not altogether independently of suggestions derived from Newton) had developed his "Differential calculus," which agreed in substance with Newton's Calculus of Fluxions, but was more perfect in form; he published his discovery first in Nov., 1684, in the "*Acta Eruditorum*," in a paper entitled *Nova Methodus pro maximis et minimis*. With Newton as well as with Leibnitz the problem was, substantially, to determine the limiting value to which the ratio of the increments of two variable quantities, of which the one is dependent on or is a "function" of the other, constantly approaches, the smaller these increments become, and conversely (in the so-called "Integral Calculus"), when this limiting value is given, to conclude backwards to the nature of the dependence of the one quantity on the other. Newton termed the constantly changing quantities flowing (*fluentes*) quantities; to the infinitesimal differences he gave the name of *momenta* (or "*principia jamjam nascentia finitarum magnitudinum*), and to the limiting values of the ratios of the variations ("*prima nascentium proportio*") the name of "fluxions." Leibnitz called the difference of two successive values of a variable quantity, when these differences were conceived as infinitely small or vanishing (decreasing *in infinitum*), differentials, and the limiting value, which the relation between the differences of the one quantity and those of the other constantly approaches, when these differences are infinitely small, the differential quotient. By a letter of Newton's to Oldenburg, dated June 13th, 1676, Leibnitz learned that Newton had discovered a method of solving certain mathematical problems, and wrote, on the 27th of August in the same year, that he, too, had done the same thing; he then received, through a communication from Newton, dated October 24th, more definite information respecting several analytical discoveries made by the latter, together with an intimation respecting the fluxional calculus through an anagram of the sentence: "*data æquatione quotcunque fluentes quantitates involvente fluxiones invenire et vice versa.*" Leibnitz thereupon, in a letter to Newton dated June 21st, 1677 (and sent through Oldenburg), communicated to him his method, not merely by intimation, but in detail, and remarked that this method might perhaps agree with that intimated by Newton ("*arbitror quæ celare voluit Newtonus de tangentibus ducendis, ab his non abludere*"). On the publication of his method in the *Act. Erud.*, 1684, Leibnitz did not mention this correspondence, but Newton, who had not replied to the last letter of Leibnitz, mentioned it in 1687 in a Scholium to Book II., Sect. II., Lemma II. (p. 253 seq.; 2d ed., p. 226 seq.), of his "*Principia*" (which, however, he suppressed in the third edition, of the year 1726, and replaced by another, relative to his letter to J. Collins, of Dec. 10, 1672, because the first Scholion had been otherwise interpreted by Leibnitz than Newton wished it to be understood). He says in this scholion, that in reply to his communication of the fact that he was in possession of a method for determining Maxima and Minima, drawing tangents, etc., even when the equations contained irrational expressions, Leibnitz answered that he had fallen upon a like method [one accomplishing the same results], and had communicated it to him, and that in fact it was but slightly different from his [Newton's]. (When and how Leibnitz discovered his method, Newton here leaves undetermined. Leibnitz thought himself authorized in regarding the Scholium as containing a recognition of the independence of his own discovery, which interpretation Newton, at a later period, disallowed.) In the sequel there arose a controversy as to which first made the discovery, Newton or Leibnitz. The controversy was decided in favor of Newton by a committee appointed by the Royal Academy of Sciences, whose report was read on the 24th of April, 1713, and published in the same year. This decision was partly just, and partly unjust. It was just, in so far as the two methods are identical, since Newton actually made his discovery before Leibnitz, while Leibnitz, not, perhaps, altogether independently of Newton, made the same discovery again after Newton, and only preceded him in giving the method to the public. But the decision was unjust, in so far as the methods are not identical, the method of Leibnitz being more perfect and finished than that of Newton; in particular, the terminology adopted by Leibnitz is more pertinent to the subjects in hand and better adapted for use than Newton's, while the most fruitful development of the fundamental idea of the method was discovered, not by Newton, but partly by Leibnitz, and partly by the brothers Jacob and Johann Bardouilli (with especial reference to transcendent functions), who adopted Leibnitz' method. (The germs of this idea were contained in the "method of exhaustion" employed by the ancients, in Cavallieri's "Method of Indivisibilia" [1635], in Fermat's method for determining the maxima and minima of ordinates—which sufficed in

the case of *rational* expressions—in Wallis' "*Arithmetica Infinitorum*," with the study of which Newton's own investigations began, and in Barrow's method with tangents). Such, in substance, has been the judgment of Euler, Lagrange, Laplace, Biot, and other mathematicians (cf., among other sources, the brief collection of their opinions in the appendix to the German translation of Brewster's *Life of Newton*, Leipsic, 1833, pp. 333–336); Biot says: "The Differential Calculus would still be a wonderful creation, if we merely possessed the fluxional calculus, in the form in which it is exposed in Newton's works." (Cf. Montucla, *Gesch. der Math.* III. p. 109; C. J. Gerhardt, *Die Entdeckung der Differentialrechnung*, Halle, 1848, *Die Entdeckung der höheren Analysis*, Halle, 1855; H. Weissenborn, *Die Principien der höheren Analysis, als hist.-krit. Beitrag zur Gesch. der Math.*, Halle, 1856; H. Sloman, *L.'s Anspruch auf die Erfindung der Differentialrechnung*, Leipsic, 1857; the same in English, London, 1860.) To Leibnitz belongs the glory of an ingenious and relatively independent discovery, subsequent to that of Newton, but to which his own earlier investigations respecting series of differences were also influential in leading him, and which conducted him to a form of the Infinitesimal Calculus materially superior to that discovered by Newton. But in casting on Newton the suspicion of plagiarism, he conducted the priority controversy (which in itself, in the interest of historical truth, was necessary and unobjectionable), in the later period of that controversy, with means which scarcely admit of excuse.

—At Hanover Leibnitz was charged with the superintendence of the ducal library, and was commissioned to write the history of the family of the reigning prince; subsequently (1691 seq.) he was also charged by Anton Ulrich of Braunschweig-Wolfenbüttel with the superintendence of the Wolfenbüttel Library. From 1678 on, he was, in his quality of ducal *Hofrath*, and afterwards in that of privy councillor of justice, a member of the office of justice (*Kanzlei für Justizsachen*), over which the Vice-Chancellor Ludolph Hugo presided. Commissioned by Duke Ernst August, who in 1679 succeeded his brother Johann Friedrich in the government, Leibnitz, in a journey undertaken in the years 1687–90 through Germany and Italy (which led him in 1688 to Vienna, and in 1689 to Rome), instituted researches relative to the history of the House of Braunschweig-Lüneburg. He published, among other things, the following compilations: *Codex juris gentium diplomaticus*, with an appended *Mantissa*, 1693–1700, *Accessiones Historicæ*, 1698, *Scriptores rerum Brunsvicensium illustrationi inservientes*, 1701–11, and he labored on the work (never fully completed, first published by Pertz): *Annales Brunsvicenses*. Leibnitz was also engaged in the transactions relative to the elevation of Hanover to the rank of an Electorate (1692). As their counsellor and friend Leibnitz was personally intimate with Dukes Johann Friedrich and Ernst August; he was less so with the son and successor (in 1698) of Ernst August, Georg Ludwig, but more so with his mother (*ob.* 1714), the Princess Sophie (a daughter of Friedrich V. of the Palatinate and sister of the Princess Elizabeth, to whom Descartes dedicated his *Princ. Ph.*); her daughter Sophie Charlotte (*ob.* 1705), who revered in Leibnitz her teacher, entered with the fullest and for himself the most stimulating sympathy into his philosophico-theological speculations, even after her marriage (in 1684) with Frederick of Brandenburg (who became in 1688 Elector Frederick III., and in 1701 King Frederick I. of Prussia). Supported by her influence, Leibnitz induced the latter to found (on the 11th of June, 1700) the Society of Sciences at Berlin (which afterwards, on the occasion of its being remodelled under Friedrich II. in 1744, was designated as the Academy of Sciences). (Cf. Christian Bartholmèss, *Histoire philosophique de l'académie de Prusse depuis Leibn.*, Paris, 1850–51; Adolf Trendelenburg, *Leibn. und die philos. Thätigkeit der Akademie im vorigen*

Jahrhundert (*akad. Vortrag*), Berlin, 1852, Art. VIII. in the 2d vol. of Tr.'s *Hist. Beitr. zur Philos.*). Leibnitz also sought, but without immediate result, to found Academies at Dresden and Vienna. Nothing was accomplished by the efforts, which were zealously made in the last decennia of the 17th century, to bring about a reunion of the Protestant and Catholic Churches, and in which, on the part of the Protestants, Leibnitz and Molanus, the Hanoverian theologian, and, on the part of the Catholics, Spinola, in the beginning, took part. Spinola employed in this connection, as a dogmatic basis, the "*Exposition de la Foi*," written by Bossuet in 1676; Leibnitz wrote (probably about the year 1686), with conciliatory intent, the "*Systema Theologicum*" (first published in 1819), attempting to present the doctrines of faith in a manner which Protestants as well as Catholics could accept. With reference to this subject, Leibnitz corresponded (in 1691 and 1692) with Pelisson, the Huguenot converted to Catholicism, and with Bossuet, who sought for a reunion through the return of the Protestants to Catholicism, and repudiated the idea of it under any other form; Bossuet's refusal to treat the question, whether the Tridentine Council was an Œcumenical Council, as an open question, frustrated the efforts of Leibnitz. In the years 1697–1706 Leibnitz took part in negotiations, which were carried on particularly between Hanover and Berlin, relative to a union of the Lutheran and Reformed confessions, but with little immediate result. The philosophical and theological doubts expressed by Bayle in his *Dictionnaire* and other works, concerning which Leibnitz had often conversed with Queen Sophie Charlotte, led Leibnitz to the publication, in 1710, of his *Essais de Théodicée sur la bonté de Dieu, la liberté de l'homme et l'origine du mal*, preceded by a *Discours de la conformité de la foi avec la raison*, directed against Bayle's doctrine, that the teachings of faith were incompatible with those of reason. In the year 1711 Leibnitz met Peter the Great of Russia, at Torgau, as also again in 1712 at Carlsbad, and in 1716 at Pyrmont and Herrenhausen. This monarch esteemed Leibnitz highly, appointed him a privy councillor of justice, and called upon him for advice concerning the best means for promoting the advancement of science and civilization in Russia. Leibnitz also originated the idea of founding an Academy of Sciences at St. Petersburg, which, however, did not take place till after Peter's death. Leibnitz lived in Vienna from December, 1712, till the end of August, 1714. On the 2d of January, 1712, he was appointed an Imperial Councillor, having still earlier (before 1692, perhaps in 1690) been elevated into the ranks of the nobility; he is said also to have received the dignity of a baron of the empire. (Joseph Bergmann, *Leibniz in Wien*, in the Transactions of the Vienna Academy, *phil.-hist. Class.* XIII., 1854, pp. 40–61; *L. als Reichshofrath und dessen Besoldung*, *ib.* XXVI., 1858, pp. 187–204.) In 1714, while residing at Vienna, Leibnitz wrote for Prince Eugene of Savoy, in French, the summary of his system, which was first published after his death (first in German, by Köhler, with the title: *L.'s Lehrsätze über die Monadologie*, etc., see above). Leibnitz returned to Hanover in September, 1714. He found the Elector Georg Ludwig no longer there, he having already gone to England, where he ascended the throne as George I. Leibnitz worked in 1715 and 1716 mainly on his *Annales Brunsvicenses*. In the same years Leibnitz became involved in a controversy (carried on by letter, through the agency of the Princess of Wales, Wilhelmine Charlotte of Ansbach, who held the *Théodicée* of Leibnitz in especial admiration) with Clarke, a disciple of Newton and partly also of Locke, respecting the fundamental doctrines of his philosophy, before the close of which he died, November 14, 1716.

Leibnitz never developed his philosophical doctrine in complete systematic order; a summary of it is given in the exposition of his monadology, which he prepared at the

request of Prince Eugene of Savoy. In his own mind it was only by a gradual development that his system assumed definite form, and he likewise deemed it advisable, in those papers of his which were destined for publicity, to separate himself only gradually, in ideas and terminology, from the schools of philosophy then dominant, the Aristotelian and the Cartesian.

In a letter, of the year 1714, to Remond de Montmort (in Erdman's edition of the Philos. Works, p. 701 seq.) Leibnitz relates the following concerning his philosophical development: "After I had left the lower school, I fell in with the modern philosophers, and I remember walking alone in a little piece of woods called the Rosenthal, near Leipsic, at the age of fifteen years, in order to deliberate with myself, whether I should adhere to the doctrine of substantial forms. The doctrine of Mechanism won finally the upper hand with me and conducted me to mathematics. But when I came to seek for the ultimate grounds of Mechanism and of the laws of motion, I turned back to metaphysics and the theory of entelechies, and from the material to the formal, and at last I conceived, after having many times revised and farther developed my conceptions, that the monads or simple substances were the only real substances, and that material things were merely phenomena, but phenomena having their good and proper foundation, and connected with each other." (Cf. the letter to Thomas Burnet of May 8 (18), 1697, in Guhrauer (see above) I., Supplement, p. 29: "*La plupart de mes sentiments ont été enfin arrêtées après une délibération de* 20 *ans*" (hence from about 1660 to 1680), "*car j'ai commencé bien jeune à méditer et je n'avais pas encore* 15 *ans que je me promenais des journées entières dans un bois pour prendre parti entre Aristote et Démocrite. Cependant j'ai changé et rechangé sur de nouvelles lumières, et ce n'est que depuis environ* 12 *ans*" (*i. e.*, since about 1685) "*que je me trouve satisfait.*")

Leibnitz says that he wholly despises only that whose object is pure deception, like the astrological art of divination, but that he finds even in the Lullian art some things worthy of respect and serviceable. Truth, he holds, is more widely possessed than is generally supposed; the majority of sects are right in a great part of their affirmations, but not in the most of their negations. Teleologists and Mechanists are both right in the positive part of their assertions; for although mechanical laws are universal in their spheres of operation, they serve to realize ends. It is possible, says Leibnitz, to remark a progress in philosophical knowledge. The Orientals had beautiful and sublime ideas of Deity. The Greeks added reasoning and, in general, the scientific form. The Church Fathers removed the evil which they found in the Greek philosophy; while the Scholastics sought to make the true in it serviceable to Christianity. The philosophy of Descartes is, as it were, the ante-chamber of the truth; he perceived that in nature the quantum of force is constant; had he also known that its aggregate direction remains unchanged, he would necessarily have been led to the system of pre-established harmony (*ap.* Erdm. p. 702, cf. pp. 133 and 108). Yet, adds Leibnitz modestly—in reply to a playful question, whether he himself thought to lead man out of the ante-chamber into the cabinet of nature—between the ante-chamber and the cabinet is situated the audience-chamber, and it will be sufficient if we obtain audience, without pretending to enter into the interior ("*sans prétendre de pénétrer dans l'intérieur*, Erdmann, XXXV., p. 123; similarly, though with a different turn, runs the well-known expression of Haller, which became the subject of Goethe's persiflage: *Ins Innere der Natur dringt kein erschaffner Geist*—"No created spirit penetrates into the interior of nature").

In the "*Disputatio metaphysica de principio individui*" Leibnitz affirms the nominalistic thesis: *omne individuum sua tota entitate individuatur*, as the first supporters of which he names Petrus Aureolus, and Durandus (see Vol. I., § 105, p. 465 seq.). Were the *entitas tota* not the principle of individuation, then this principle must either be a negation or a *positio*, and in the latter case either a physical part more especially determining the essence, namely: existence, or a metaphysical part, more especially determining the species, namely: the *hæccitas*. That the individualizing principle is a negation can, as Leibnitz rightly remarks, only be assumed on the ground of the realistic postulate that the universal has more of being than the singular (*universale magis esse ens, quam singulare*). (In reality, the dictum of Spinoza: *omnis determinatio est negatio*, presupposes that being, in the most complete sense, is predicable of substance, which is the most universal thing.) Leibnitz, however, convinced that the *individuum* is an *ens positivum*, declares it impossible to conceive how it can be constituted by anything negative. Negation cannot produce the individual marks (*negatio non potest producere accidentia individualia*). The opinion that existence is the principle of individuality either agrees with the thesis, that the *entitas* is that principle (namely, when the distinction between *essentia* and *existentia* is regarded as only a rational distinction, in which sense Leibnitz interprets the doctrine of Scherzer, his teacher), or it leads (namely, when the distinction is regarded as a real one) to the absurd supposition that existence is separable from essence, so that the latter must exist even after the removal of existence. Leibnitz examines finally the *hæccitas*, which Scotus (*Sent.*, II., 3, 6, *et al.*) affirmed as the principle in question, and to the defence of which the Scotists were accustomed to bind themselves by oath. To the assertion, that the species is "contracted" into the individual by the *differentia individualis* or *hæccitas*, as the genus into the species by the specific difference, Leibnitz opposes the nominalistic doctrine, that the genus is not contracted by anything into the species, nor the species into the individual, because genus and species are nothing outside of the intellect; there exist in reality only individuals; whatever exists is by its very existence individual.—Among the contents of the Corollaries, appended by Leibnitz to his Dissertation, the psychological thesis is especially noticeable, in which he confesses his adhesion to the early Scholastic modification of the Aristotelian doctrine that the Nous alone, as a substance, is separable from the body, and to the doctrine that the sensitive and also (what Descartes denied) the vegetative soul belong to the same soul to which the thinking power belongs (*hominis solum una est anima, quæ vegetativam et sensitivam virtualiter includat*). This doctrine had received the official sanction of the Catholic church—most distinctly at the Council of Vienne, in 1311—but was rejected by many of the Nominalists. Not uninteresting is also the philological thesis, by which it is held that the letters ascribed to Phalaris are spurious.

In the philosophical works of the next succeeding period in the life of Leibnitz, the *Dissertatio de Arte Combinatoria*, the *Confessio Naturæ contra Atheistas* (so entitled by Spizelius), the *Epistola ad Jacobum Thomasium*—which, together with the *Diss. de Stilo philosophico Nizolii*, is prefixed to the edition of the work of Nizolius, entitled, *De Veris Principiis et Vera Ratione Philosophandi*—Leibnitz declares himself for the opinion, in which the reformers of philosophy, Bacon, Hobbes, Gassendi, Descartes, and others, in opposition to the Scholastics, all agreed, that the only attributes of bodies are magnitude, figure, and motion, and that they contain no occult qualities or forces, nor anything incapable of a purely mechanical explanation. Yet he refuses to be called for this reason a Cartesian; he holds that the Aristotelian physics contains more truths than the Cartesian; that what Aristotle teaches concerning matter, form, privation, nature, place, infinity, time, and motion, is, for the most part, immovably

established; that Aristotle was right in looking for the ultimate ground of all motion in the divine mind; that the existence or non-existence of vacant space is uncertain; that by the substantial form only the difference of the substance of one body from the substance of another body is to be understood; and that Aristotle's abstract statements respecting matter, form, and motion can be interpreted in a way which accords with modern teachings respecting bodies. Leibnitz approves in Nizolius his war on Scholasticism, which, owing to the lack of experience and of mathematical knowledge, was unable to comprehend nature, but censures his opposition to Aristotle himself as being carried too far, as also his extreme nominalistic doctrine, that the genus is only a collection of individuals—by which doctrine the possibility of scientific demonstration on the basis of universal propositions is destroyed, and only induction, as the mere collation of similar experiences, is left remaining as an organon of method.

The autographic manuscript, *De Vita Beata*, published by Erdmann, contains Cartesian doctrines, taken especially from letters written by Descartes in the year 1645 to Princess Elizabeth of the Palatinate, concerning the moral philosophy of Seneca (see Trendelenburg, *Hist. Beitr. zur Philos.*, II., 1855, Art. 5, pp. 192–232). In Ethics, Leibnitz conceded to Descartes higher authority than in Physics. Yet it is doubtful whether and to what extent Leibnitz adopted the doctrines cited from Descartes, or whether he merely brought them together as Cartesian opinions (as in the case of his excerpts from Plato, Spinoza, and others).

In the *Meditationes de Cognitione Veritate et Ideis*, which were published in 1684 in the *Acta Eruditorum Lipsiensium*, Leibnitz presents modified Cartesian conceptions. Knowledge (*cognitio*) is either obscure or clear (*vel obscura, vel clara*); clear knowledge may be either confused or distinct (*vel confusa, vel distincta*), and distinct knowledge either inadequate or adequate (*vel inadæquata, vel adæquata*), and also symbolic or intuitive; knowledge which is adequate and also intuitive is the most perfect knowledge. Leibnitz here defines these terms as follows: "A notion is obscure when it is impossible for us to recognize what it represents,—whence a proposition is obscure into which such a notion enters; my knowledge is clear, therefore, when I have the means of recognizing what my notions represent. It is confused when I am unable—and distinct when I am able—to enumerate separately the marks which suffice to distinguish the thing represented from other things, provided that the thing possess such marks and elements into which the notion of it may be resolved;—such enumeration is nominal definition;—distinct knowledge of an indefinable notion is possible, when that notion is primitive or is its own mark. Knowledge is adequate when everything which enters into a distinct conception is again distinctly known, or when the analysis is carried to the very end. When a notion has been rightly formed, we are not able to think all the elementary notions which enter into it at once; but when this is possible, or in so far as it is possible, I term our knowledge intuitive." Leibnitz makes an application of these definitions to the ontological argument for the existence of God, in its following (Cartesian) form: Whatever follows from the definition of anything can be predicated of this thing; existence follows from the definition of God as the most perfect being, than whom no greater can be conceived (*Ens perfectissimum vel quo majus cogitari non potest*, for existence is a perfection); therefore, existence can be predicated of God.—He argues that it only follows that God exists, provided that his existence be possible; for the inference from definition presupposes that the definition is a "real" definition, *i. e.*, that it involves no contradiction;—the nominal definition, namely, contains only the distinguishing marks, while the real definition establishes the possibility of the thing defined; this possibility is known *a priori* if all

the predicates are compatible with each other, *i. e.*, if a complete analysis discloses no contradiction between them. But no such contradiction is possible in the idea of God, because this idea includes only realities.*

Leibnitz warns against the misuse of the Cartesian principle, that whatever we clearly and distinctly perceive concerning anything is true, and may be predicated concerning it (*quidquid clare et distincte de re aliqua percipio, id est verum seu de ea enunciabile*); often that appears to us as clear and distinct, which is obscure and confused; the principle in question is then only sufficient, when the criteria of clearness and distinctness above laid down have been applied, and when the ideas involve no contradiction and the propositions have been made certain according to the rules of the ordinary (Aristotelian) logic, by exact observation and faultless demonstration.†

Leibnitz believed it possible to reduce all thinking to reckoning, and all correctness in the conduct of thought to correctness in reckoning, if there could be found for the simplest ideas and for the modes of combining them signs as adequate as those employed in mathematics, and, especially, as those introduced by Vieta in his method of representing all numbers by letters (Vieta, *In Artem Analyticam Isagoge seu Algebra Nova*, 1635, which contains, p. 8, the following affirmation: *logistice numerosa est, quæ per numeros, speciosa, quæ per species seu rerum formas exhibetur, utpote per alphabetica elementa*, see Trendelenburg, *Hist. Beitr.*, III., p. 6). This was the object of the plan—elaborated by Leibnitz in his early years, defended by him in his later years, and which he mentions in many of his works and letters—of a *Characteristica Universalis* (*Spécieuse générale*), which, however, remained a mere project. (What Leibnitz intended, to what extent, in particular, he followed George Dalgarn's *Ars signorum, vulgo character universalis et lingua philosophica*, London, 1661, and also John Wilkins' *Essay toward a Real Character and a Philosophical Language*, London, 1668, how far his own numerous but sporadic and hesitating attempts conducted him, what was accomplished towards the partial execution of the project of Leibnitz—on the basis, however, of the Kantian doctrine of categories—by Ludwig Benedict Trede, the author of an anonymous work, published at Hamburg, in 1811, and entitled: "*Vorschläge zu einer nothwendigen Sprachlehre*," all this is shown

* But the categorical inference from definition takes not merely the possibility, but the reality of the object defined for granted; the definition only shows the necessity of our connecting the predicate with the subject, not that of supposing the subject to exist, and it leads, therefore, by itself to a hypothetical conclusion, which only then, when the reality and not merely the possibility of the subject has been otherwise demonstrated, passes over into a categorical conclusion. Kant justly disputed the correctness of the Cartesian argument, together with that of the Leibnitzian addition to it.

† Leibnitz correctly observes that the criterion of truth which is found in the clearness and distinctness of our knowledge cannot be applied without great danger of self-deception, and that it must be reduced to that other criterion which is founded on the necessities of thought, which are controlled by the norms of logic. Yet here, too, he does not go far enough, since he expects from complete clearness, distinctness, and logical correctness, complete and immediate agreement of the idea with the reality, or of thought with being, and does not inquire whether and to what extent human knowledge contains elements of a subjective character, which all the clearness and logical correctness of thought directed solely to the Object can never remove, and which cannot be separated from the objectively valid elements, but can only be known in their subjective character through thought directed to knowledge itself—a condition which Kant, at a later epoch, undertook to meet by his critique of the reason; supposing the separation of the subjective from the objective elements effected, it would then remain to inquire, whether by the aid of it the question, how and what things are in themselves, is susceptible of a gradual, positive solution—which Kant held to be impossible—and in case the affirmative should prove true the criterion of clearness and logical correctness would acquire new significance and authority, not in a dogmatic sense, or as dispensing with criticism, but in a sense implying criticism as an antecedent step. Cf. my Art.: *Der Idealismus, Realismus, und Idealrealismus*, in the *Zeitschr. f. Ph.*, new series, Vol. 34, 1859, p. 63 seq.

by Trendelenburg in the paper above cited. Whatever of truth is contained in the fundamental idea of this plan is realized in the signs of mathematics, chemistry, etc.)

To the collection of public acts and treaties, published by Leibnitz at Hanover, in 1693, and entitled, "*Codex juris gentium diplomaticus*," Leibnitz prefixed a number of definitions of ethical and juridical conceptions. The controverted question, whether there was such a thing as disinterested love (*amor non mercenarius, ab omni utilitatis respectu separatus*), he seeks to answer by the definition of love as delight in the happiness of others (*amare sive diligere est felicitate alterius delectari*), in which definition, on the one hand, the element of personal satisfaction is not lost sight of, and, on the other hand, the source of this satisfaction is found in the happiness of others (which latter qualification is wanting in the definition of Spinoza: "Love is joy accompanied by the idea of its external cause.") Love is a passion which must be guided by reason, in order that justice may grow from it. Leibnitz defines benevolence as the habit (*habitus*) of loving or esteeming (a habit or ability, ἕξις, arising from the frequent exercise of the faculty, δύναμις, according to the Aristotelian terminology, see above, Vol. I., § 50). Charity (*caritas*) is universal benevolence. Justice is the charity of the wise, *i. e.*, which follows the dictates of wisdom. The good man is he who loves all men, so far as reason permits; justice is the virtue which controls this love. Leibnitz distinguishes three degrees of natural justice: strict justice (*jus strictum*), in commutative justice (*justitia commutativa*), equity, or love in the narrower sense of the word (*æquitas vel angustiore vocis sensu caritas*), in distributive justice (*justitia distributiva*), and piety or probity (*pietas vel probitas*) which is universal justice (*justitia universalis*). Commutative justice, says Leibnitz, following Aristotle (see above, Vol. I., § 50), respects only those differences among men which arise from commercial intercourse (*quæ ex ipso negotio nascuntur*), and considers men in other respects as equal to each other. Distributive justice takes the deserts of individuals into consideration, in order, according to the measure of the same, to determine the reward (or punishment) due. Strict justice may be enforced; it serves for the prevention of injurious acts and the maintenance of peace; but equity or love, in distributive justice, aims also at the positive furtherance of happiness, though only of earthly happiness. Submission to the eternal laws of the divine monarchy is justice in the universal sense, in which (according to Aristotle) it includes all virtues in itself. Leibnitz attempts also (as he had also done in his Method of Jurisprudence) to reduce *jus strictum*, *æquitas*, and *pietas* to the three principles of justice expressed by the phrases: *neminem lædere, suum cuique tribuere, honeste vivere*, or: Injure no one, give to each his due, and live honestly. In this interpretation Leibnitz was controlled more by his own conception of justice than by that of the Roman jurists.

The philosophical system of Leibnitz is founded on the fundamental belief, that the theologico-teleological and physico-mechanical conceptions of the world should not exclude each other, but should be in all cases united. The particular phenomena of nature can and must be mechanically explained, but we should not, at the same time, be unmindful of their designs, which Providence is able to accomplish by the very use of mechanical means; the principles of physics and mechanics themselves depend on the direction of a supreme intelligence, and can only be explained when we take into consideration this intelligence; the true principles of physics must be deduced from the divine perfections; thus must piety be combined with reason. By way of illustration, Leibnitz concludes from the divine wisdom, that order in the causes will be followed by order in the effects, and hence that continuous variations in the given conditions will be followed by continuous variations in whatever depends on those conditions. (He says, for example: *Lorsque la différence de deux cas peut être diminuée au dessous de toute grandeur donnée, in datis ou dans ce qui est posé, il faut qu'elle se puisse trouver aussi diminuée au dessous de toute grandeur donnée dans ce qui en résulte.*) This is the "law of continuity," which Leibnitz first laid down in a letter to Bayle, in the *Nouvelles de la République des Lettres, par Bayle*, Amst., 1687. Leibnitz admits that in "things composed" a slight variation sometimes produces a very great effect; but affirms that this cannot be so in the case of principles or simple things, since otherwise nature could not be the work of infinite wisdom. (Yet even in the field of mathematics it is possible for a quantity, which depends on a continuously variable one, in certain cases to vary discontinuously at particular times.) Between all the principal divisions of beings (*e. g.*, between plants and animals), there must exist a continuous series of intermediate beings, whereby the "*connexion graduelle*" of species is secured. "Everything goes by steps in nature, and nothing by leaps; this law of change is a part of my law of continuity." (*Nouv. Ess.*, IV., 16, ed. Erdm. p. 392).

The doctrine of monads (which term was not employed by Leibnitz before 1697, and was probably borrowed from Giordano Bruno) and of pre-established harmony was first communicated by Leibnitz to a number of individuals, in particular to Arnauld, in letters written in and after 1686, and most distinctly in one dated Venice, March 23, 1690. It was made public in the different articles in the *Journal des Savans* and the *Acta Eruditorum Lipsiensium*. Already in a mathematical paper, which appeared in the *Acta Erud.*, 1686 (*Brevis demonstratio erroris memorabilis Cartesii et aliorum circa legem naturæ, secundum quam volunt a Deo eandem semper quantitatem motus conservari*), and afterwards in the *Specimen dynamicum pro admirandis naturæ legibus circa corporum vires et mutuas actiones detegendis et ad suas causas revocandis* (published in 1695), Leibnitz had sought to demonstrate his assertion, that not, as Descartes taught, the quantity of motion, but rather the quantity of force—which is determined, not by the product of the mass and the velocity ($m \times v$), but by that of the mass and the square of the velocity ($m \times v^2$)—remains unchanged in the universe. From this Leibnitz concludes, that the nature of corporeal objects cannot consist in mere extension, as Descartes supposed, nor—as Leibnitz himself, with Gassendi and others, had at an earlier time believed, and in the letter to Jac. Thomasius in 1669 still affirmed—in extension and impenetrability alone, but that it involves also the power of action. The doctrine of mere passivity could easily lead to the (theological or anti-theological) opinion of Spinoza, that God is the only substance. (Cf. Leibn. *Epist. de rebus philosophicis ad Fred. Hoffmann*, 1669, in Erdm.'s edition, p. 161: *Pulchre notas, in mere passivo nullam esse motus recipiendi retinendique habilitatem, et adempta rebus vi agendi, non posse eas a divina substantia distingui incidique in Spinosismum.*) But on the other hand, in proportion as matter was regarded not as merely extended, but as endowed with force, *i. e.*, in proportion as the Cartesian dualism between merely extended and merely thinking substance was removed, Spinoza's (psychological and) fundamental conception of the substantial unity of body and soul was rendered plausible. Leibnitz would have been obliged, in this respect, to assent to Spinoza's doctrine, if it had been possible for him to retain the belief that there exist extended substances. But he held that the divisibility of matter proved that it was an aggregate of substances; that there can be no smallest indivisible bodies or atoms, because these must still be extended and would therefore be aggregates of substances; that the real substances, of which bodies consist, are indivisible, cannot be generated, and are indestructible (that they exist only by creation, and perish only by annihilation, according as God wills their creation or annihilation) and in a certain respect similar to souls, which

Leibnitz likewise considers as indivisible substances. The indivisible, unextended substances were termed by Leibnitz (from 1697 on) monads. He said: Spinoza would be right, if there were no monads. (*Lettre II. à Mr. Bourguet*, in Erdmann's edition, p. 720: *De la manière que je définis perception et appétit, il faut que toutes les monades en soient douées. Car perception n'est la représentation de la multitude dans le simple, et l'appétit est la tendance d'une perception à une autre; or ces deux choses sont dans toutes les monades, car autrement une monade n'aurait aucun rapport au reste des choses. Je ne sais comment vous pouvez en tirer quelque Spinosisme; au contraire c'est justement par ces monades que le Spinosisme est détruit. Car il y a autant de substances véritables et pour ainsi dire de miroirs vivans de l'univers toujours subsistans ou d'univers concentrés qu'il y a de monades, au lieu que, selon Spinosa, il n'y a qu'une seule substance. Il aurait raison, s'il n'y avait point de monades et alors tout, hors de Dieu, serait passager*, etc.)

In the paper entitled *Système nouveau de la nature* (*Journal des Savans*, 1695, in Erdmann's ed. of the Philos. Works, XXXVI., p. 124) Leibnitz professes after long meditations finally to have convinced himself that it is impossible to find the grounds of a true unity in matter alone, or in that which is only passive, since there everything, *in infinitum*, is but a conglomeration of parts. Since the composite exists there must also exist simple substances, which as true unities cannot be material, but only formal atoms, as it were "metaphysical points" (*Syst. nouv. de la nature, Op. Ph., ed.* Erdm., p. 126), which are exact points, like mathematical points, but not, like the latter, mere "*modalités*," but points possessing a real, independent existence (*points de substance*). (Leibnitz early taught that the soul was a simple substance, being led to that assumption by the Cartesian doctrine of the seat of the soul. In a letter to Duke Joh. Friedr. of Brunswick, dated May 21, 1671, he writes that the mind must be located at a place, where all the motions, which are impressed upon us by the objects of sensation, meet together, and hence at a single point; if we assign to the mind a greater place we must ascribe to it *partes extra partes*, and it can therefore "not reflect upon all its parts and actions." It was at a later epoch, however, probably first in 1685, that Leibnitz advanced to the analysis of matter into simple substances, having the nature of mere points.)

The true unities or simple substances must be defined by the aid of the conception of force. (In teaching this Leibnitz followed partially Glisson—an English physician, and the author of a *Tractatus de natura substantiæ energetica seu de vita naturæ*, London, 1672, in which motion, instinct, and ideas are attributed to all substances—and English Platonists, such as More and Cudworth, the latter of whom assumed the existence of a "plastic force"). Active force (*vis activa*) is (as Leibnitz says in the paper, *De primæ philosophiæ emendatione et de notione substantiæ*, in *Act. Erud.*, 1694) intermediate between mere capacity of action and action itself; the mere capacity needs to be positively stimulated from without, while active force needs only to have all hindrances removed in order that an action may be produced, just as the tightened string of the bow needs only to be loosed in order that it may manifest its force. In the *Principes de la nature et de la grâce, fondés en raison* (written about 1714), in Erdmann's ed., p. 714, Leibnitz defines substance as being which is capable of action (*La substance est un être capable d'action*). Yet there is also in every finite monad a passive side, which Leibnitz calls *materia prima* (in distinction from the aggregate or mass, called *materia secunda*); God alone is pure actuality (*actus purus*), free from all potentiality. Passivity manifests itself as force of resistance (*antitypia*), on which the impenetrability of the mass depends (*Op. Ph., ed.* Erdm., pp. 157, 678). If it is by the aid of the conception of force that we must conceive all substances, it follows, says Leibnitz in

the *Syst. Nouv.*, that they must contain something analogous to feeling and appetite (*quelque chose d'analogique au sentiment et à l'appétit*); the notion of substances must be formed "in imitation of the notion which we have of souls." Every substance has perceptions and tendencies to new perceptions. Each carries in itself the law of the continuation of the series of its operations (*legem continuationis seriei suarum operationum*, Letter to Arnauld, 1690, Erdmann, p. 107). Every substance possesses a representative nature; each one is a representative of the universe; but in some substances this representation is more distinct than in others, and in each it is most distinct with reference to those things to which each is most nearly related, and less distinct with reference to other things (*Principes de la nature et de la grâce*, 3 seq., Erdmann, p. 714 seq.). He who should know perfectly one monad would in it know the world, whose mirror (*miroir*) it is; the monad itself knows only that which it clearly represents. Every monad, therefore, represents the universe according to its peculiar point of view (*selon son point de vue; les points mathématiques sont leur point de vue, pour exprimer l'univers*). By this all monads and all complexes of monads are differentiated from one another; there are not in the universe two objects perfectly alike; things qualitatively indistinguishable are absolutely identical (*principium identitatis indiscernibilium, Monad.*, 9, *et pass.*). On this fact, that every monad from its stand-point reflects the universe, is founded the harmony established among all the monads from the beginning by God their creator (*harmonia præstabilita*). Each of them reflects clearly but the smallest part of the universe; the greater part of it is reflected in representations ["perceptions"], which, though obscure, are really present and active. (Says Leibnitz: *C'est aussi par les perceptions insensibles que j'explique cette admirable harmonie préétablie de l'âme et du corps et même de toutes les monades ou substances simples, qui supplée à l'influence insoutenable des uns sur les autres, Nouv. Ess.*, Erdm., p. 197 seq.).

Through the theory of monads the dissimilarity of nature, which, according to Descartes, subsisted between body and soul, was removed by the conception of an uninterrupted scale of perceiving substances. This doctrine of Leibnitz occupies an intermediate position between the dualism of Descartes and the monism of Spinoza. Says Leibnitz, supporting himself on the authority of the principle of continuity: There is an infinite number of degrees between any motion, however slight, and complete rest; between hardness and absolute, completely unresisting fluidity; between God and nothing. So also there are innumerable degrees between any activity and pure passivity. Consequently it is not reasonable to assume the existence of one active principle, the universal spirit (soul of the world), and one passive principle, namely, matter (*Considérations sur la doctrine d'un esprit universel*, 1702, *Opp. Ph., ed.* Erdm., p. 182). The scale of beings descends from God, the primitive monad, down to the lowest monad (*Epist. ad Bierlingium*, 1711, Erdmann, p. 678; cf. *Principes de la nature et de la grâce*, 4, Erdmann, p. 714 seq.). Yet, notwithstanding this denial by him of dualism, Leibnitz does not teach that there is a natural interaction between different monads, and, in particular, between body and soul; for the succession of perceptions in the soul cannot modify the mechanical movements of the body, nor can the latter interfere with or change the succession of perceptions. It is not possible, says Leibnitz (*Syst. Nouv.*, 14, Erdm., p. 127), that the soul or any other true substance should receive anything from without, unless through the divine omnipotence. The monads, he says in another place (*Monad.*, 7, Erdm., p. 705), have no windows through which elements of any kind might enter or pass out. There is no *influxus physicus* between any created substances, hence not between the substance which is the soul and the substances which make up its

body. Further, the soul cannot exert an influence on the body, for the reason that in the universe, as in every system of substances acting only on each other and experiencing only each other's actions, not only the same amount of (living) force, but also the same quantity of progress in any particular direction is preserved unchanged (*lex de conservanda quantitate directionis*, see Erdmann's ed., pp. 108, 133, 702); the soul can therefore not, as Descartes supposed, influence and modify the direction of the bodily motions. Descartes left the common opinion, that the soul exerts a natural influence on the body, undisturbed; a part of his disciples perceived that that influence was impossible, and framed the doctrine of Occasionalism, which came into acceptance especially through Malebranche; but this doctrine makes miracles of the most common events, since it represents God as constantly interfering anew with the course of nature. It is the rather true that God from the beginning so created soul and body, and all other substances, that while each follows the law of its internal development (the above-mentioned *lex continuationis serici suarum operationum*) with perfect independence (*spontanéité*), each remains, at the same time, at every instant in complete agreement (*conformité*) with all the rest (hence that the soul, following the law of the association of ideas, has a painful sensation at the same instant in which the body is struck or wounded, and, conversely, that the arm, conforming to the law of mechanics, is extended at the same instant in which a particular desire arises in the soul, etc.). The relation of this theory of pre-established harmony to the two other possible explanations of the correspondence between soul and body is illustrated by Leibnitz (in the *Second Eclaircissement* and *Troisième Eclaircissement du nouveau Système de la communication des substances*, Erdmann, p. 133 seq.) through the following comparison: A constant agreement between two clocks can be effected in either one of three ways, the first of which corresponds with the doctrine of a physical interaction between body and soul, the second with the doctrine of Occasionalism, and the third with the system of pre-established harmony. Either both clocks may be so connected with each other, through some sort of mechanism, that the motion of the one shall exert a determining influence on the motion of the other, or some one may be charged constantly to set the one so that it may agree with the other, or both may have been constructed in the beginning with such perfect exactness that their permanent agreement can be reckoned on without the interference of the rectifying hand of the workman.—Since Leibnitz held the exertion of a physical influence by the soul on the body, or *vice versâ*, to be impossible, it only remained for him to choose between the two last theories, and he decided in favor of the theory of a "*consentement préétabli*," because he considered this way of securing agreement more natural and worthy of God than that of occasional interference. The absolute artist could only create perfect works, which do not need a constantly renewed rectification.

The soul may be called the governing monad or the substantial centre of the body, or the substance which acts on the monads of the body, in so far as it is true that the latter have been accommodated to it, and its state furnishes a reason for the changes in the body (*Syst. Nouv.*, 17, Erdmann, p. 128). Every monad which is a soul is enveloped in an organic body, which it never loses in all its parts. (But that the soul can *partially* lose its body, and that the elements of the body are subject to constant material change [*Monad.*, 71], while every monad is absolutely simple, is sufficient evidence of the complete untenableness of the attempt to identify the distinction between soul and body—which latter, according to Leibnitz, as an aggregate of substances, is a complex of monads [or *une masse composée par une infinité d'autres monades qui constituent le corps propre de cette monade centrale; Principes de la nature et de la grâce*, 3, Erdm., p. 714]

—with the distinction between activity and passivity in the same monad and to interpret the pre-established harmony accordingly.)

There exists nothing besides monads and phenomena, which are perceptions in monads. All extension belongs only to the phenomenal; matter, with its continuous extension, exists only in the confused apprehension of the senses. This matter is merely a "well-founded phenomenon" (*phænomenon bene fundatum*), "a regulated and an exact phenomenon, which does not deceive him who is careful to observe the abstract rules of the reason." Space is the order of possible co-existing phenomena; time is the order of successions (Erdmann's ed., pp. 189, 745 seq., 752 *et al.*). That which is real in extension consists only of the ground of the order and regulated succession of phenomena, which ground cannot be visibly perceived, but only conceived by the intellect. Leibnitz disputes the doctrine (maintained, among others, by Newton) that space is a real and absolute existence ("*un être réel et absolu*"), and also attacks Newton's theory of attraction (in Erdmann's edition, p. 732).

The union of simple substances to form an organism is a *unio realis*, and forms in some sense a compound substance, the simple substances being joined, as if by a "substantial bond," in one whole.

From the monadic and spiritual nature of the soul Leibnitz infers its indestructibility and immortality (*Syst. nouv.*, Erdmann, p. 128: "*Tout esprit étant comme un monde à part, suffisant à lui-même, indépendant de toute autre créature, enveloppant l'infini, exprimant l'univers, est aussi durable, aussi subsistant et aussi absolu que l'univers même des créatures.*") From the impossibility of explaining the actual agreement between soul and body by the hypothesis of physical influence, he deduces the necessity of supposing that God exists as the common cause of all finite substances ("*car ce parfait accord de tant de substances qui n'ont point de communication ensemble, ne saurait venir que de la cause commune*," *Syst. nouv.*, 1695, in Erdmann's edition, p. 128). Perhaps Leibnitz, when, in the year 1671, he wrote to Duke Johann Heinrich of Brunswick, of "the ultimate reason of things or the universal harmony, *i. e.*, God," did not conceive God as the author of the harmony, but as the harmony itself; still this expression may perhaps be interpreted in the same sense in which a similar expression is employed by Leibnitz in the *Princ. de la nat. et de la grâce* (Erd., p. 716), where he says: "*Cette dernière raison des choses est appelée Dieu*," and yet recognizes God as being an "absolute, simple substance." But in the later period of his philosophizing he taught, without hesitation or wavering, that God, the primitive substance, had so regulated every monad that each constantly reflected from its stand-point the universe, and that God thus produced the universal harmony (*Nouv. Ess.*, iv., § 11). God, says Leibnitz (*Monad.*, 47, Erdmann, p. 708), is the primitive unity or the original simple substance, the *Monas primitiva* (*Epist. ad Bierlingium*, 1711, Erdm., p. 678; "*la monade primitive*," *Lettre à Remond de Montmort*, 1715, Erdm., p. 725), whose productions are all created or derivative monads, all of which (as Leibnitz, not indeed without infringing somewhat upon his postulate of the indivisibility of the monads, teaches) arise from the primitive monad as if by constant radiations (which yet are dynamic divisions; *par des fulgurations continuelles de la Divinité de moment à moment, bornées par la réceptivité de la créature à laquelle il est essentiel d'être limitée*). God has an adequate knowledge of all things, since he is the source of all. He is, as it were, an omnipresent centre (*comme centre partout, mais sa circonférence est nulle part*); all things are immediately present to him; nothing is far from him. Those monads which are spirits have, beyond the knowledge which belongs to the others, the knowledge of God, and participate, in a measure, in God's creative power. God governs nature as its architect, the world of

spirits as their monarch; between the kingdoms of nature and grace there subsists a pre-determined harmony (*Principes de la nature et de la grâce*, 13–15, Erdm., p. 717).

On the principle of the harmony between the kingdoms of nature and grace is based Leibnitz's *Theodicæa* (*Théodicée*), or vindication of God in view of the evil in the world. The world, as the work of God, must be the best among all possible worlds; for were a better world possible than that one which actually exists, God's wisdom must have known, His goodness must have willed, and His omnipotence must have created it. The evil in the world results necessarily from the very existence of the world. If there was to be a world, it was necessary that it should consist of finite beings; this is the justification of finiteness, or limitation and liability to suffering, which may be called the metaphysical evil. Physical evil or pain is salutary as punishment, or means of tuition. As to moral evil or wrong, God could not remove them without removing the power of self-determination, and, therewith, the possibility of morality itself; freedom, not as exemption from law, but as the power of deciding for one's self according to known law, belongs to the essence of the human spirit. The course of nature is so ordered by God as in all cases to accord with the highest interests of the soul; and it is in this that the harmony between the kingdoms of nature and grace consists.

The substance of the objections advanced in the *Nouveaux essais sur l'entendement* (written in 1704, but first published in 1765) against Locke's *Essay concerning Human Understanding* (which latter work he yet recognizes as "*un des plus beaux et des plus estimés ouvrages de ce temps*") is indicated by Leibnitz himself (in a letter to Bierling) in the following manner: "In Locke's work certain special truths are not badly set forth; but in regard to the main question he errs far from the right doctrine, and he has not perceived the nature of the mind and of truth. If he had rightly weighed the difference between necessary truths, or those which are known by demonstration, and those truths which we arrive at, up to a certain measure, by induction, he would have perceived that the necessary truths can only be demonstrated from the principles implanted in the mind, the so-called innate ideas, because the senses teach, indeed, what takes place, but not what necessarily takes place. He has also not observed that the ideas of being, substance, identity, the true, the good are innate in the mind, for the reason that the mind itself is innate in itself, and in itself embraces all these ideas. *Nihil est in intellectu, quod non fuerit in sensu, nisi ipse intellectus.*" * Cf. for details

* Yet since Locke assumed, in addition to sensation, reflection, or the consciousness which the mind has of its own operations, as a source of ideas, and since, on the other hand, Leibnitz represents the innate ideas not as conscious notions, but only as "slumbering notions" or "*idées innées*," which are consequently not "known" ("*connues*"), the contrast between their doctrines is less than would appear from the words they employ. If the mind is able to apprehend the ideas of being or substance, because it is itself a being, a substance, then it is not this idea as such, not even when conceived as an unconscious idea, that is innate, but only that from which this idea may be formed; if it has the capacity for truth and goodness, and is able by reflection on its own acquired truth and goodness to form these ideas, then it does not obtain them without "*réflection*," and all that is true in the Leibnitzian theory is that the possibility of that development, which leads to these ideas, is conditioned upon an activity immanent in the soul, and that therefore the comparison of the soul to a *tabula rasa* is inappropriate. All notions are formed through the co-operation of external and internal factors; Locke laid emphasis on the former, Leibnitz on the latter. To interpret the "capacity" for conscious ideas as synonymous with the actual presence of these ideas in the mind as unconscious notions, so that the development of the same shall consist only in raising them gradually to clear consciousness, is to substitute for the actual process of development an imaginary one, in which the co-operation of the external factor is ignored. The world of external reality, which affects our senses, is, not less than the mind itself, a thing of order, shaped according to immanent laws, and not a conglomeration of things accidental; hence also our experience, as determined by the action of the external world upon us, is not a chaotic mass, into which the mind must first, from its own resources, introduce order by following "innate ideas,"

the paper by G. Hartenstein, cited above (§ 116, p. 80): *Locke's Lehre von der menschlichen Erkenntniss in Vergleichung mit Leibnitz's Kritik derselben*, in Vol. IV., No. II., of the *Abh. der philologisch-historischen Classe der K. Sächs. Gesellschaft der Wiss.*, Leipsic, 1861.

Leibnitz designates, as principles of reasoning, the principle of identity and contradiction and the principle of sufficient reason. (*Monadol.*, 31, 32, in Erdmann's edition, p. 707: *Nos raisonnemens sont fondés sur deux grands principes, celui de la contradiction, en vertu duquel nous jugeons faux ce qui en enveloppe, et vrai ce qui est opposé ou contradictoire au faux, et celui de la raison suffisante, en vertu duquel nous considérons qu'aucun fait ne saurait se trouver vrai ou existant, aucune énonciation véritable, sans qu'il y ait une raison suffisante pourquoi il en soit ainsi et non pas autrement, quoique ces raisons le plus souvent ne puissent point nous être connues.*) All necessary truths are treated by Leibnitz as resting on the principle of contradiction, and all contingent truths or truths of fact as resting on the principle of sufficient reason; the former, among which Leibnitz reckons, in particular, the truths of mathematics, can be reached by an analysis of ideas and principles, continued until the primitive ideas and principles are arrived at. (In opposition to this doctrine Kant called all mathematical truths synthetic judgments *à priori*. Many Leibnitzians attempted to deduce the principle of sufficient reason from the principle of contradiction.)

Leibnitz exerted an influence on the religion and general culture of the eighteenth century, chiefly through his attempted demonstration of the agreement of reason with faith (in the *Théodicée*), the immediate occasion of which was Bayle's extreme development of the early Protestant principle of their contradiction, and which, in view of the extension and deepening of scientific, rational knowledge in the fields of natural science and history, appeared as a pressing need of the times. In the measure in which his principle was accepted, the violence of the antagonism between Catholics and Protestants, on the one hand, was diminished, while, however, on the other hand, the importance of all revealed doctrines (although Leibnitz himself held fast to their truth, and exerted himself in particular to combat Socinian objections against the doctrines of the Trinity) was estimated less highly in comparison with the truths cognizable by the reason alone; in this latter direction the actors in the so-called period of "enlightenment" went far beyond the intention of Leibnitz. The Leibnitzo-Wolfian philosophy opened the way for the theological Rationalism, which was afterwards more fully developed in the school of Kant.

Although the philosophical efforts of Leibnitz were directed pre-eminently towards the union of the theological and cosmological conceptions, the derivation of the world from God and its explanation by natural laws, yet a real harmony of the two elements was not attained. The theory of pre-established harmony permits only in appearance a conception of the world which accords with natural law, when it represents each monad as reflecting from its stand-point the universe; a real admission of the conformity of nature to law would involve the admission of a causal nexus. How God is able to determine the monads remains obscure. The diversity of the stand-points of the monads must either be of the same kind with that of the positions of points in sensible space, or not. If not, then the nature of this diversity is left altogether unde-

which, according to Leibnitz, run through the soul like the veins in a block of marble (or, as Kant pretends, by following *à priori* forms); that regular order of the real world, in which the necessity of particular facts finds its reason, contains in itself the signs by which its own nature and reality can be known. Isolated experiences, it is true, do not lead to this result, but the combination of experiences according to logical norms —which latter are very essentially different from purely subjective elements of knowledge—does. Cf. below notes to § 122 [cf. T. E. Webb, *Intellectualism of Locke*.]

termined; the development of the doctrine of monads, which almost constantly presupposes the analogy of spatial relations, is by the general principle, that no such relations are predicable of the monads, not only made completely incapable of representation to the imagination, but loses all its clearness for thought.—The Leibnitzian doctrine of space remains, therefore, scarcely essentially distinguished from that of Kant, according to which space is a mere subjective form of intuition (cf. Kant's own interpretation of L.'s doctrine of space, in *Metaph. Anfangsgründe der Naturwiss., II. Hauptstück, Lehrsatz IV., Anm.* 2, where the order of simple beings corresponding with the spatial order is explained as belonging to a "merely intelligible and to us unknown world"). Further, it involves—as Kant has shown—as a logical consequence the doctrine that the forms of thought are purely subjective, while on the other hand it is open to the same objections which proved the Subjectivism of Kant untenable, and led Herbart, in particular, to the construction of a new system of "Realism." But if the places or stand-points of the monads are of a spatial nature (and that they must be such, the mathematical determinateness of the laws of mechanics especially forces us to assume, which laws undeniably point beyond the Subject to the transcendental objects on which the sensible intuitions of the Subject depend; to this interpretation point also Leibnitz' definition of the *points de vue* as mathematical points within organized masses, and his affirmation that the magnitude of the effect depends on the distance, *Principes de la nature et de la grâce*, Erdm., p. 714), if this alternative, then, be accepted, then (with Herbart) an intelligible space must be distinguished from the phenomenal space, but conceived as similar to it. This, however, is not the doctrine of Leibnitz, who expressly restricts all spatial relations to phenomena, and denies that they belong to the monads; if they did belong to the monads, then at least the theological side of the Leibnitzian doctrine, the doctrine of the omnipresence of God, of his non-confinement to any particular point, of his equally near relation to all finite monads, would be endangered. The *punctual* simplicity of the monads is incompatible with the multiplicity of perceptions in them, assumed in order to exclude external influences. Bayle called attention to this. But give up this simplicity, and the first consequence is the restoration of Spinozism; Herbart, in order to rescue the doctrine of punctual simplicity (whose possibility, for the rest, is also doubtful in itself, since the point exists only as limit and is vested with an independent character only in abstraction), advanced to the consequence, that the monads were simple in quality, whereby not only the doctrine of pre-established harmony, but also the development of a speculative theology of any kind is made impossible. Kantism, the renewed Spinozism (Schellingism), and Herbartism lay conjoined and undeveloped in the doctrine of Leibnitz; a real reconciliation of these opposing elements was not effected by Leibnitz.

The next problem, however, was not the refutation, but the systematization of the Leibnitzian conceptions. This work was undertaken with decided talent, indefatigable industry, and very considerable result by Christian Wolff, so that nearly all disciples of Leibnitz in Germany stood also under his influence, and the school was and is still commonly designated as the Leibnitzo-Wolffian. Still, side by side with the Leibnitzian doctrine, which had, for the most part, adopted all that was tenable in the Cartesian and Aristotelian philosophies, went other tendencies of thought, especially that of Locke; some other thinkers contemporaneous with Leibnitz, such as Puffendorf, the professor of law, Tschirnhausen, the logician, and others, asserted a more or less considerable authority in particular departments of philosophy.

A German predecessor of Leibnitz in the effort to reform philosophy was Joachim

Jungius (1587–1657), an excellent mathematician and investigator in natural science, who (in agreement with Plato) laid special stress on the importance of mathematical discipline as preparatory to sound philosophizing. He was the author of the *Logica Hamburgensis*, Hamb., 1638 and 1681. On him cf. G. E. Guhrauer, *J. J. und sein Zeitalter, nebst Göthe's Fragm. über Jungius*, Stuttg. and Tüb., 1850.

The skeptical view of human knowledge expressed by Agrippa of Nettesheim in his *De Incertitudine et Vanitate Scientiarum* (Cologne, 1527), and represented in the seventeenth century by Joseph Glanvill in England, and by Le Vayer and others in France, was reasserted by Hieronymus Hirnhaym (died at Prague in 1679) in his work, *De typho generis humani sive scientiarum humanarum inani ac ventoso tumore*, written in the interest of the belief in revelation and of asceticism. Yet he was no enemy of scientific studies. Karl Sigm. Barach has written of him in *H. H., ein Beitrag zur Gesch. der philos.-theologischen Cultur im 17. Jahrhundert*, Vienna, 1864.

Mysticism was renewed by Angelus Silesius (Johann Scheffler, 1624–77), among others, in poetic form (God has need of man, as man needs God, for the development of his essence). Cf. Franz Kern, *Joh. Scheffler's cherubinischer Wandersmann*, Leips., 1866; in this book the near relation of Scheffler to Eckhart is pointed out.

Walther von Tschirnhausen (1651–1708), a mathematician, physicist, and logician, who educated himself especially by the study of the works of Descartes and Spinoza, and also by personal intercourse and correspondence with the latter, and who entered at an early age into personal relations with Leibnitz, treated of logic as the art of invention in his *Medicina mentis sive artis inveniendi præcepta generalia*, Amst., 1687, Leips., 1695, etc.

Samuel von Puffendorf (1632–94) distinguished himself by his work, *De Statu Reip. Germanicæ* (1667, etc.), on the public law of Germany (for the author's name, the assumed name, Severinus a Monzambano, was substituted on the title-page), and by the works, *De Jure Naturæ et Gentium* (Lond., 1672; Frankf., 1684, etc.), *De Officio Hominis et Civis* (Lond., 1673, etc.), on natural law and ethics. Puffendorf borrows from Grotius the principle of sociality, from Hobbes that of individual interest, and combines both in the proposition, that sociality is for the interest of each individual. The principal merit of Puffendorf's presentation consists in his systematic arrangement of the doctrines of natural law.

Christian Thomasius (1655–1728) follows substantially Puffendorf in his *Institutionum jurisprudentiæ divinæ libri tres, in quibus fundamenta juris nat. secundum hypotheses ill. Pufendorfii perspicue demonstrantur*, Frankf. and Leips., 1688; 7. ed., 1730. He is more original in the *Fundamenta juris naturæ et gentium ex sensu communi deducta, in quibus secernuntur principia honesti, justi ac decori*, Hall., 1705, etc., in which he describes the *justum*, *decorum*, and *honestum* as three degrees of conduct conformed to wisdom, and lays down as the principle for the *justum*: "Do not to others what thou wouldst not that others should do to thee" (*quod tibi non vis fieri, alteri ne feceris*); for the *decorum*: "As thou wouldst that others should do to thee, do thou even so to them" (*quod vis ut alii tibi faciant, tu et ipsis facias*); and for the *honestum*: "As thou wouldst that others should do to themselves, do also thou thyself" (*quod vis ut alii sibi faciant, tu et ipse facias*). To secure the performance of the duties required by justice, force may be employed.—Tschirnhausen's *Medicina Mentis*, although combated by Thomasius, yet exercised an influence on the philosophy of the latter. Cf. Luden, *Chr Thomasius nach seinen Schicksalen und Schriften*, Berlin, 1805.

Heinr. v. Cocceji (1644–1719) and his son, Samuel v. Cocceji (1679–1755) applied natural law to international and civil law. Cf. Trendelenburg, *Fr. d. Gr. u. sein*

Grosskanzler Sam. von Cocceji, in the Transactions of the Acad. for the year 1863, Berlin, 1864, pp. 1–74; Heinr. Degenkolb, in the third edition of Rotteck and Welcker's *Staatslexicon*, on the influence of Wolff's doctrine of natural right on our common law, in the article on the common law of Prussia.

In the field of the philosophy of law and history, Giovanni Battista Vico, the Neapolitan (1668–1744), among the younger contemporaries of Leibnitz, distinguished himself. He wrote: *De antiquissima Italorum sapientia*, Nap., 1710; *De uno universi juris principio et fine uno*, Nap., 1720; *Liber alter, qui est de constantia jurisprudentis*, *ib.*, 1721; *Principj di una scienza nuova d'intorno alla commune natura delle nazioni*, Naples, 1725, 1730, 1744; the same in German, translated by W. E. Weber, Leips., 1822. A complete edition of his works was published at Naples, in 1835. More recently his *Scritti Inediti* have been published by G. del Giudice, Naples, 1862.

Christian Wolff (the name is also not seldom written with one f, especially in the Latinized form) was born in 1679 at Breslau. From 1707 to 1723 he was a professor at Halle, and when driven away from there, assumed a similar position at Marburg. In 1740 he was recalled by Frederick II. to Halle, where he died in 1754. Wolff, by his systematization of philosophy, rendered it a very considerable service in the matter of scientific form and of thorough, didactic exposition, although that service was diminished by his excessive and pedantic employment of the mathematical method, and by an insipid breadth of exposition. He appropriated the conceptions of Leibnitz, and, following Leibnitz' own example, sought to combine them with the Aristotelian doctrine, which until then had prevailed in the schools; he supported them in part by new arguments, but he also partially modified them, and brought them, by leaving out some of L.'s more venturesome hypotheses, into nearer agreement with the ordinary conceptions of things. In particular, he denied perception to all monads which were not souls, accepted the doctrine of pre-established harmony only as a permissible hypothesis, and would not exclude the possibility of the natural interaction of soul and body. He held fast to the Optimism and Determinism of Leibnitz. He sought to reduce the principle of sufficient reason to the principle of contradiction, which alone (in agreement with Aristotle and with the earlier view of Leibnitz himself) he admitted as an absolutely fundamental principle of demonstration. Wolff divides metaphysics into ontology, rational psychology, cosmology, and theology; ontology treats of the existent in general, rational psychology of the soul as a simple, non-extended substance, cosmology of the world as a whole, and rational theology of the existence and attributes of God. "Practical philosophy" is divided by Wolff (in agreement with the Aristotelians) into Ethics, Œconomics, and Politics. His moral principle is the idea of perfection. To labor for our own perfection and that of others is the law of our rational nature. Wolff's German and (mostly later and fuller) Latin works treat of all the branches of philosophy (with the exception of æsthetics, which was first developed by Wolff's pupil, Baumgarten).

Johann Joachim Lange (1670–1744), who was the cause of Wolff's expulsion from Halle, sought in the works: *Causa Dei et religionis naturalis adversus atheismum* (Hal., 1723), *Modesta disquisitio novi philos. syst. de Deo, mundo et homine et præsertim harmonia commercii inter animam et corpus præstabilita* (Hal., 1723), etc., to demonstrate the Spinozistic and atheistic character of the Wolffian doctrine and the danger with which it was fraught for religion; he took especial offence at the doctrine of Determinism taught by Wolff.

Andreas Rüdiger (1673–1731), a scholar of Christian Thomasius, and an eclectic in philosophy, combated the Leibnitzian doctrine of the pre-established harmony between the body and the soul, maintaining the theory of physical influence, and asserting the

extended nature of the soul and the sensible origin of all ideas. *Andr. Rüdigeri disp. de eo, quod omnes ideæ oriantur a sensione*, Leips., 1704; *De sensu veri et falsi*, Hal., 1709, Leips., 1722; *Philos. synthetica*, Hal., 1707, etc.; *Physica divina, recta via ad utramque hominis felicitatem tendens*, Frankf.-on-the-M., 1716; *Philos. pragmatica*, Leips., 1723; *Wolfens Meinung von dem Wesen der Seele und Rüdigers Gegenerinnerung*, Leips., 1727.

An indirect pupil of Rüdiger (won over to his doctrines by Ad. Friedr. Hoffmann, one of R.'s hearers) was Christian August Crusius (1712–1775), the most influential opponent of Wolffianism, who opposed especially the doctrines of optimism and determinism, and based ethics on the will of God as a lawgiver. His works are the following: *Anweisung, vernünftig zu leben*, Leips., 1744; *Gewissheit und Zuverlässigkeit der menschl. Erkenntniss*, Leips., 1747, etc. With Crusius agrees, in many respects, the Eclectic, Daries (1714–1772), who wrote *Elemen. metaph.*, Jen., 1743–44; *Philos. Nebenstunden*, Jen., 1749–52; *Erste Gründe der philos. Sittenlehre*, Jen., 1750; *Via ad veritatem*, Jen., 1755.

Among the opponents of the Leibnitz-Wolffian doctrine belongs also Jean Pierre de Crousaz (1663–1748), who wrote a Logic (published in French, Amst., 1712; in Latin, Geneva, 1724), a theory of the Beautiful (Amst., 1712, 2d ed., 1724), a short work on Education (Hague, 1724), and other works. An eclectic philosopher.

Among the early followers of Leibnitz, who did not come under the influence of Wolff, belongs Michael Gottlieb Hansch (1683–1752), the author of a work entitled *Selecta Moralia* (Halle, 1720), and of an *Ars Inveniendi* (1727). But by far the larger number of the followers of the Leibnitzian doctrine were at the same time also disciples of Wolff, till in the later period when Wolff's authority began to decline, and many returned more immediately to Leibnitz himself.

Among the more important Wolffians were Georg Bernhard Bülffinger (or Bilfinger, 1693–1750), author of a *Disput. de triplici rerum cognitione, historica, philosophica et mathematica* (Tüb., 1722), a *Commentatio hypothetica de harmonia animi et corporis humani maxime præstabilita ex mente Leibnitii* (Frankf. and Leips., 1723, 2d ed., 1735), *Commentationes philos. de origine et permissione mali, præcipue moralis* (*ib.*, 1724), *Dilucid. philos. de Deo, anima humana, mundo et generalibus rerum affectionibus* (Tüb., 1725); Ludw. Phil. Thümming (1697–1728), author of *Institutiones philosophiæ Wolfianæ* (Frankf. and Leips., 1725–26), etc.; Joh. Gust. Reinbeck (1682–1741), an ecclesiastical provost, who prefixed to his reflections on the truths contained in the Augsburg Confession a preface on the use of reason and philosophy in theology; J. G. Heineccius, J. A. von Ickstadt, J. U. von Cramer, Dan. Nettelbladt, and other jurists; Joh. Christoph Gottsched (1700–1766), the historian of literature and critic, who wrote, among other things, *Erste Gründe der gesammten Weltweisheit* (Leips., 1734, 2d ed., 1735–36); cf. Danzel, *Gottsched und seine Zeit*, Leips., 1848); Martin Knutzen (*ob.* 1751), the mathematician, who wrote on the immaterial nature of the soul (Frankf., 1744), and *Syst. causarum efficientium* (Leips., 1745), and was one of Kant's teachers; Fr. Chr. Baumeister (1707–1785), who wrote text-books, and also a *Historia doctrinæ de mundo optimo* (Gorl., 1741); Alex. Gottlieb Baumgarten (1714–1762), who wrote, among other things, *Metaphysica* (Halle, 1739), *Ethica Philosophica* (Halle, 1740), and especially a work entitled *Æsthetica* (Frankfort on the Oder, 1750–58), in which he systematically developed this branch of philosophy, to which he first gave the name of Æsthetics, on the ground of his definition of beauty as perfection apprehended through the senses; Georg Friedr. Meier (1718–1777), Baumgarten's pupil at Halle, author of *Anfangsgründe der schönen Wissenschaften* (Halle, 1748, 2d ed., 1754), *Vernunftlehre* (*ib.* 1752),

and an epitome of the latter (*ib.*, 1752; these text-books, among others, were used by Kant as the basis of his lectures on logic), *Metaphysik* (Halle, 1755–59), *Philos. Sittenlehre* (Halle, 1753–61), and many other works. A number of philosophical terms (and in particular the term *Æsthetics*, as above mentioned) were first employed by Baumgarten in the sense now given to them.

To substantially the same school of thinkers belonged also Herm. Sam. Reimarus (1694–1765) who published a *Vernunftlehre* (Hamburg and Kiel, 1756, 5th ed., 1790), *Betrachtungen über die Kunsttriebe der Thiere* (Hamburg, 1762, 4th ed., 1798), and *Ueber die vornehmsten Wahrheiten der natürlichen Religion* (Hamburg, 1754, 6th ed., 1791), and who was also the author of the Wolfenbüttel Fragments, subsequently published by Lessing (directed against the positive content of the Christian religion; cf. especially, on this subject, Dav. Friedr. Strauss, *Herm. Samuel Reimarus u. s. Schutzschrift für die vernünftigen Verehrer Gottes*, Leipzig, 1862); Gottfried Plouequet (1716–1790), who wrote, among other works, *Principia de substantiis et phænomenis, accedit methodus calculandi in logicis ab ipso inventa, cui præmittitur commentatio de arte characteristica universali* (Frankf. and Leips., 1753, *ed. II.*, 1764; cf. Aug. Friedr. Böck, *Sammlung von Schriften, welche den logischen Calcul des Herrn Prof. Pl. betreffen*, Frankf. and Leipsic, 1766); and Joh. Heinr. Lambert (1728–1777), whose *Neues Organon oder Gedanken über die Erforschung und Bezeichnung des Wahren und dessen Unterscheidung vom Irrthum und Schein* (Leips., 1764), *Architektonik* (Riga, 1771), as also his *Kosmologische Briefe* (Augsburg, 1761) contain much that is original. An isolated position was occupied by Joh. Chr. Edelmann (1698–1767), originally a pietist, but afterwards a free-thinker, who inclined towards Spinozistic pantheism, and who wrote *Moses mit aufgedecktem Angesicht* (1740, etc.), *Selbstbiographie* (ed. Klose, Berlin, 1849); cf. K. Mönckeberg, *Reimarus und Edelmann*, Hamburg, 1867.

Of the thinkers—some of them very respectable ones—who were rather eclectics than adherents of any one system, Moses Mendelssohn, Eberhard, Platner, and others differed relatively little from the Leibnitz-Wolffian school. Moses Mendelssohn (born at Dessau, Sept. 6th, 1729, died Jan. 4, 1786) labored especially for the cause of religious enlightenment. The precepts of religion were designed, according to him, to regulate men's practice. In respect of such specifically religious observances as were required by his religion (the Jewish), he was perhaps excessively afraid of reformatory attempts, but, on the other hand, he claimed for thought complete freedom, and undertook to demonstrate philosophically and with logical rigor the doctrines of the existence of God and of the immortality of the human soul. Friedrich Nicolai (1733–1811), the friend of Mendelssohn and Lessing, and a prominent actor in the period of "enlightenment," labored, especially as editor of the *Bibl. der schönen Wissenschaften* (Leips., 1757–58), of the *Briefe die neueste deutsche Litt. betreffend* (Berl., 1759–65), of the *Allgem. deutsche Bibl.* (1765–92), and of the *Neue allg. d. Bibl.* (1793–1805) with salutary effect, so long as the work of purifying the public mind from the filth of superstition and emancipating it from prejudices remained to be done, but with imperfect success when the victory over traditional absurdities had been gained and the positive replenishment of the public mind with a nobler content became the main problem. The men who labored for the solution of this latter problem defended themselves against the attacks which he made upon them in a manner which should have no greater influence in determining our historic estimate of Nicolai than the hostile criticism, by Socrates and Plato, of the Greek Sophists should have in determining our judgment upon the latter. Joh. Aug. Eberhard (1738–1809; from 1778 on professor at Halle; cf. on him F. Nicolai, *Gedächtnissschrift auf J. A. E.*, Berlin, 1810) attempted to defend Leibnitzianism against Kantism; he was the editor of the *Philosoph. Magazin* (Halle, 1788–92) and of the *Philos. Archiv* (1792–95); the most important of his works were the *Neue Apologie des Socrates* (Berlin, 1772, etc.), *Allgemeine Theorie des Denkens und Empfindens* (Berlin, 1776 and 1786), *Theorie der schönen Künste und Wissenschaften* (Halle, 1783; 3d ed., 1790), *Sittenlehre der Vernunft* (Berlin, 1781, 1786), *Handbuch der Aesthetik für gebildete Leser* (Halle, 1803–5; 2d ed., 1807 seq.), *Versuch einer allgemeinen deutschen Synonymik* (Halle, 1795–1802; 2d ed., 1820, continued by Maass and Gruber), *Synonym. Wörterb. der deutsch. Sprache* (Halle, 1802). Thomas Abbt (1738–1766) wrote *Vom Tod für's Vaterland* (Berlin, 1761), *Vom Verdienst* (Berlin, 1765), *Auszug aus der allg. Welthistorie* (Halle, 1766—an *exposé* of the gradual progress of civilization); his *Vermischte Schriften* were published at Berlin, 1768, etc. Ernst Platner's (1744–1818) *Philosophische Aphorismen* (Leips., 1776–82; 2d revised edition, 1793–1800), in which, with the presentation and concise demonstration of the doctrines of philosophy, are combined retrospective glances at and historical criticisms of the teachings of ancient and modern philosophers, is a work still valuable. Christoph Meiners (1747–1810) wrote, besides his works on the history of ancient philosophy (see above, Vol. I., § 7), in particular, *Untersuchungen über die Denk- und Willenskräfte*, Gött., 1806. As a popular moralist, Christian Fürchtegott Gellert (1715–1769), the poet, deserves here to be mentioned. His complete works were published at Leipsic in 1769–70, his moral lectures, Leips., 1770, edited by Ad. Schlegel and Heyer. The doctrine of Locke (on which G. F. Meier was led by the king to lecture at Halle), which was favored by Frederick the Great (of whom Paul Hecker, among others, treats in *Die relig. Entwickelung F.'s d. Gr.*, Augsburg, 1864), as also the moral, political, and æsthetical inquiries of the English and in part also of the French, determined essentially the direction of thought followed by Garve, Sulzer, and others. Christian Garve (1742–1798) translated and annotated the *Ethics* and *Politics* of Aristotle, subjoining a critical review of the history of Morals, with an especially thorough examination of the Kantian doctrine (*Uebersicht der vornehmsten Principien der Sittenlehre von dem Zeitalter des Aristoteles an bis auf unsere Zeiten*, Breslau, 1798); he translated and explained Cicero's *De Officiis* (Breslau, 1783; 6th ed., *ib.*, 1819), and wrote *Versuche über verschiedene Gegenstände aus der Moral, Litteratur und dem gesellschaftlichen Leben* (Berl., 1792–1802; 2d ed., 1821), and other works and papers, which give evidence of extensive and appreciative observation of human life. Of importance as psychologists are Joh. Christ. Lossius, who in his *Physische Ursachen des Wahren* (Gotha, 1775), sought to investigate the relation of the psychical processes to the motions of the fibres of the brain, and his opponent, Joh. Nic. Tetens (1736–1805), author of *Philos. Versuche über die menschl. Natur und ihre Entwickelung* (Leipsic, 1776–77). The latter was the first to co-ordinate feeling (which Aristotle regarded as the passage from perception to desire) as a fundamental faculty with the understanding and the will, but he included in "feeling," as the receptive faculty, not only pleasure and pain, but also the sensuous perceptions and the "affections" or impressions which the mind produces on itself. Friedr. Carl Casimir von Creuz (1724–1770) denies in his *Versuch über die Seele* (Frkf. and Lps., 1753) the *punctual* simplicity of the soul, without, however, for that reason affirming it to be composite and divisible, and occupies in his doctrine, which is based on experience, an intermediate position between Locke and Leibnitz. An eclectic tendency characterizes the works of Joh. Georg Heinrich Feder (1740–1821), whose text-books (*Grundriss der philos. Wiss.*, Coburg, 1767, *Institutiones log. et metaph.*, Frkf., 1777, etc.) were in their time very widely used; his Autobiography was published by his son (Leips., 1825). Dietrich Tiedemann (1748–1803), who combined Lockian elements with the Leibnitzian doctrine, deserves

to be mentioned, not only as an historian of philosophy, but also on account of his investigations in psychology and respecting the subject of cognition (*Untersuchungen über den Menschen*, Leips., 1777–98; *Theätet oder über das menschl. Wissen, ein Beitrag zur Vernunftkritik*, Frankf. on the M., 1794; *Idealistische Briefe*, Marburg, 1798; *Handbuch der Psychologie*, ed. by Wachler, Leips., 1804). Johann Georg Sulzer (1720–1779) distinguished himself chiefly by his *Allgemeine Theorie der schönen Künste* (Leips., 1771–74, also 1792–94; with additions by Blankenburg, 1796–98, and with supplements by Dyk and Schütz, Leips., 1792–1808). Gotthilf Sam. Steinbart (1738–1809) wrote a Christian Doctrine of happiness (*Glückseligkeitslehre des Christenthums*, Züllichau, 1778; 4th ed., 1794) and other popular works. Johann Jacob Engel (1741–1802) exposed his philosophical views in a popular form, especially in the collection of essays, entitled The Philosopher for the World (*Der Philosoph für die Welt*, Leips., 1775, '77, 1800; 2d ed., 1801–2). Karl Philipp Moritz (1757–93) edited a Magazine for Empirical Psychology (*Magazin zur Erfahrungsseelenlehre*, 1785–93), furnished a characterization of himself in the work: *Anton Reiser* (Berlin, 1785–90), and wrote a treatise on the plastic imitation of the beautiful (Brunswick, 1788), and other psychological and æsthetical works. Karl Theod. Ant. Maria von Dalberg (1744–1817) wrote *Betrachtungen über das Universum* (Erfurt, 1776; 7th ed., 1821), *Gedanken von der Bestimmung des moralischen Werths* (*ib.*, 1787), and other philosophical works. The pedagogues, Joh. Bernh. Basedow (1723–90), Joachim Heinr. Campe (1746–1818), and others, stood under the influence of Locke and Rousseau, and Karl Friedr. Bahrdt (1741–92), one of the "enlighteners," was for a time the director of a *Philanthropin* [a sort of school conducted on what are termed natural principles]. Eschenburg's (1743–1820) *Entwurf einer Theorie und Literatur der schönen Wissenschaften* (Berlin, 1783; 5th ed., 1836) and *Handbuch der class. Litteratur* (8th ed., Berlin, 1837) appertain rather to the history of literature than to philosophy. Georg Christoph Lichtenberg, the physicist (1742–1799; *Vermischte Schriften*, Göttingen, 1800–1805 and 1844–1853), following Spinoza, pronounced against "the infamous Two in the world, viz.: body and soul, God and the world;" the soul and inert matter were, he affirmed, mere abstractions, and we could know of matter nothing but the forces with which it was one.

Lessing's (Jan. 22, 1729, to Feb. 15, 1781) fruitful speculations on æsthetics and the philosophy of history (contained especially in his *Hamburger Dramaturgie* and his work on the Education of the Human Race) contained germs whose development was among the most important merits of German philosophy in the following period. The question, whether we should prefer the active search for truth or the actual and assured possession of truth by the gift of God, was decided by Lessing in a sense opposite to that in which Augustine (see above, Vol. I., § 86, p. 338 seq.) answered it, and in favor of the former alternative. Lessing's philosophical conceptions grew out principally from his study of the Leibnitzian doctrine. The confession of "Spinozism," which Lessing made to Jacobi in the year 1780, had perhaps the sense that he found in it the basis of Leibnitzianism. Lessing affirmed that thinking, willing, and creating were identical in God. According to Jacobi's account, he considered "extension, motion, and thought as having their foundation in a superior force, which these attributes were far from exhausting, and which was capable of a kind of enjoyment which not only surpassed all actual conceptions, but was completely incapable of being represented in any conception." The speculative, rationalizing interpretation which Lessing gave to the doctrine of the Trinity might have been founded on passages in the 5th Book of Spinoza's *Ethics*, or, also, on passages in the works of St. Augustine and Leibnitz.—Lessing views the books of the Bible as the elementary books which served for the

education of the human race, or, at least, of a part of it, with which God chose to carry out one particular plan of tuition. Lessing distinguishes three stages in the life of humanity, differing essentially from each other in the motives of action peculiar to them. The first stage is that of childhood, which seeks for immediate enjoyment; the second is that of boyhood and youth, when the thought of future goods, of honor, and prosperity is the guiding idea; the third stage is that of the full man, who, even in the absence of these prospects of honor and prosperity, is able to do his duty. (Akin to this latter utterance of Lessing are, on the one hand, the Platonic principle, that justice and every other virtue are worthy to be sought after, not for the sake of reward, but on their own account, and, on the other hand, the categorical imperative of Kant; on the contrary, among the earliest teachers of the Christian church many, *e. g.*, Lactantius, assert the opposite principle.) These stages, says Lessing, must be traversed in the same manner by the human race in the succession of its generations, as by each individual man (which thesis of Lessing was disputed by Mendelssohn). The Old Testament was intended for the first stadium in the divine plan for the education of the human race, and the New Testament, which makes most reference to future reward, for the second; but the time is sure to come for a new, eternal Gospel, which is promised us in the elementary books of the New Covenant. In the elementary books truths are "reflected before" us (as if set before us in reflected images), which we are to look upon as revelations, until reason has learned to deduce them from other established truths belonging to her domain and to combine them with the latter. The development of revealed truths into truths of reason is absolutely necessary, if the human race is to receive real advantage from them.—With reference to the doctrine of the Trinity, Lessing affirms it "impossible that God should be one, in the sense in which finite things are one." God must have a complete idea of himself, *i. e.*, an idea in which all is contained that is in himself, including therefore God's necessary reality, and hence an idea, which is an image, having the same reality as God himself, and which is consequently a reduplication of the divine Self; but this idea implies, then, as a third element or process in the divine nature, the combination of the two already given in a single unity. (Kant, on the contrary, withdraws from beneath all such interpretations the ground on which they rest.) Lessing understands the doctrine of original sin in the sense, "that man, in the first and lowest stage of humanity, is not such an absolute master of his actions that he can follow moral laws." To the doctrine of satisfaction he attributes the following sense, viz.: "that God, notwithstanding the original impotence of man, preferred to give him moral laws and to forgive him all transgressions on his Son's account—*i. e.*, on account of the absolute extent of all his perfections, in comparison with which and in which all individual imperfection disappears—than not to give them to him and to exclude him from all moral blessedness, which yet without moral laws is inconceivable." (Kant's interpretation of the two last dogmas, in his "*Religion innerhalb der Grenzen der blossen Vernunft*" is very similar to that of Lessing.) To the historical question relative to the person of Christ, Lessing ascribes only a very subordinate importance (in which respect Kant and Schelling, the latter at least in his earlier period, agree with him, whereas Schleiermacher, to a certain extent, even in his *Reden über die Religion*, and much more in his later works, makes the entire religious life to depend directly upon the person of Christ). The idea, that the same path by which the race attains to its perfection, must be traversed by every individual man, is not advanced by Lessing in the limited sense, that each, in advancing to whatever stage he may actually reach, must pass through the same stadia which the race passes through in advancing to the same stage;

on the contrary, he ascribes to that idea an unlimited truth, and argues, accordingly, that every individual man shall pass through those stages, which during this life he does not reach, in an ever-renewed existence by means of repeated re-appearances in this world. (This latter hypothesis, as it implies the possibility of at least a temporary oblivion of all previous states, and thus puts at least in the back-ground the idea of the conscious identity of the person, approximates toward the hypothesis of the continued existence of the mind in the race, of Christ in Christians, etc., toward which later, when the Individualism prevalent in the 18th century began more and more to give place to universalistic and pantheistic views, Schleiermacher, at all events for a time, leaned decidedly.)

§ 118. The prevailing character of the French philosophy of the eighteenth century was that of opposition to the received dogmas and the actual conditions in Church and State, and the efforts of its representatives were chiefly directed to the establishment of a new theoretical and practical philosophy resting on naturalistic principles. The way for such a development having been previously prepared by Bayle and his skeptical philosophy, Voltaire came forward, resting in the positive part of his doctrine essentially on the physics of Newton and on Locke's philosophy of cognition, and finding favor, especially for his hostile criticism of the dominant theological confession, not only among the educated of his own nation, but also, to a great extent, outside of France. Before him, Maupertuis had already victoriously defended the Newtonian cosmology against the Cartesian, and Montesquieu, particularly, had won over the educated classes to liberal ideas. Rousseau, offended by a degenerate civilization, pointed back to nature, rejected the positive and historical, and preached a religion of nature founded on the ideas of God, virtue, and immortality; he demanded for men an education according to nature, and a democratic form of government, which should impose upon the freedom of the individual only such limits as the individual can concede and agree to without forfeiting his inalienable rights as a man. The science of æsthetics was successfully cultivated by Batteux, who defined art as consisting essentially in the imitation of the beautiful in nature. Sensualism was developed on the basis of Locke's doctrine, but to an extent to which Locke had not gone, by Condillac, who viewed all psychical functions as transformed sensations, and accordingly taught that internal perception had its basis in external or sensuous perception. Helvetius sought to found moral science on the principle of self-interest, by affirming that the demands of this principle could not be fully satisfied except as they harmonized with the good of society. Diderot, who, in connection with D'Alembert, superintended the publication of the *Encyclopædia* of all the sciences, advanced gradually from deism to pantheism. Robinet, through his doctrine of a natural gradation of existences, or of the gradual progress of nature from its lower creations up to man, became a forerunner of Schelling. Bonnet, while believing in God and immortality, sought to discover the material conditions of the activities of the soul. Pure materialism was taught by the physician La Mettrie, chiefly as a psychological doctrine, but by Baron Holbach, in the *Système de la Nature*, as an all-inclusive, anti-theological philosophy.

On the philosophy of the French in the eighteenth century the principal work is Ph. Damiron's *Mémoires pour servir à l'histoire de la philosophie au XVIIIe siècle, tom. I.–II.*, Paris, 1858, *tome III. avec une introduction de M. C. Gourand*, Paris, 1864. Cf. Lerminier, *De l'influence de la philos. du XVIIIe siècle sur la législation et la sociabilité du XIXe*, Par., 1833; Lanfrey, *L'Eglise et les philosophes au XVIIIe siècle*, 2d ed., Par., 1857; see, further, the sections on this topic in the larger works on the history of philosophy, and in works on general history and the history of literature, especially in Nisard's *Hist. de la Litt. Fr.* (Par.,1848–49), Chr. Bartholmèss' *Hist. philos. de l'acad. de Prusse depuis Leibn.* (Paris, 1850–51), and *Hist. Crit. des doctrines religieuses de la philosophie moderne* (Strasb., 1855), A. Sayous' *Le dix-huitième (siècle) à l'étranger, hist. de la littérature française dans les divers pays de l'Europe depuis la mort de Louis XIV. jusqu'à la révolution française* (2 vols., Paris, 1861), A. Franck's *La philos. mystique en France au 18. siècle* (Paris, 1868) and in Schlosser's *Geschichte des 18. Jahrhunderts*, in Herm. Hettner's *Litteraturgesch. des 18. Jahrhunderts*, Part Second (on French literature), and in F. Albert Lange's *Gesch. des Materialismus*, Iserlohn, 1866.

Voltaire's works were published at Geneva in 1768, at Kehl and Bâsle in 1773, at Kehl, 1785–89 (with a biography of Voltaire by Condorcet), at Paris, 1829–34, etc. Cf. on him, besides Condorcet (whose biographical work was also published separately, Paris, 1820), E. Bersot, *La philosophie de V.*, Paris, 1848; L. J. Bungener, *V. et son temps*, Paris, 1851; J. B. Meyer, *V. und Rousseau*, Berlin, 1856; J. Janin, *Le roi Voltaire*, 2d ed., Paris, 1861; A. Pierson, *V. et ses maîtres, épisode de l'hist. des humanités en France*, Paris, 1866; Emil du Bois-Reymond, *Voltaire in seiner Beziehung zur Naturwiss.* (discourse at the celebration of the birthday of Frederick the Great), Berlin, 1868; G. Renschle, *Parallelen aus dem 18. und 19. Jahrhundert* (Kant and Voltaire, Lessing and D. F. Strauss), in the *Deutsche Vierteljahrsschrift*, 1868; Leouzon-le-Duc, *Voltaire et la police*, Paris, 1868. [*Voltaire as a Theologian, Moralist, and Metaphysician*, in *Fraser's Magazine*, Vol. 76, November, 1867, pp. 541–568; D. F. Strauss, *Voltaire* (Six Lectures), 2d ed., Leipsic, 1870; J. Morley, *Voltaire*, London, 1872. *Tr.*]

On Montesquieu, compare Bersot (Paris, 1852), and E. Buss (*Montesq. und Cartesius*, in the *Philos. Monatshefte*, IV. 1, Oct., 1869).

The works of Rousseau were published at Paris in 1764, etc., also, in particular, edited by Musset-Pathay, 22 vols., Paris, 1818–20, and ed. by A. de Latour, Paris, 1863; material previously inedited was published by Streckeisen-Moulton, Par., 1861 and '65; biographies, to complete the coquetting *Confessions*, have been furnished by Musset-Pathay, Paris, 1821, Morin, Par., 1851, E. Gnion, Strasb., 1860, F. Brockerhoff, Leips., 1863. Cf. *Rousseau'sche Studien*, by Emil Feuerlein, in *Der Gedanke*, 1861 seq.; A. de Lamartine, *Rousseau, son faux contrat social et le vrai contrat social*, Poissy, 1865.

Charles Bonnet's *Œuvres*, Neufchâtel, 1779. A work on him by the Duke of Caramen was published at Paris, 1859.

Diderot's philosophical works were published in 6 vols. at Amsterdam, 1772. His complete works were published at Paris, 1798 (by Naigeon) and 1821, the latter edition being supplemented by the *Correspondance philos. et critique de Grimm*, in 1829, and by the *Mémoires, correspondance et ouvrages inédits de Diderot*, in 1830. The most comprehensive and thorough work on him is Rosenkranz's *Diderot's Leben und Werke*, Leips., 1866. Cf. also the article by Rosenkranz on Diderot's dialogue entitled Rameau's Nephew, in *Der Gedanke*, Vol. V., 1864, pp. 1–25. On D'Alembert compare J. Bertrand, *D'Alembert, sa vie et ses travaux*, see *Revue des deux mondes*, 1865, Vol. 59, pp. 984–1006.

On J. B. Robinet, cf. Damiron, as already cited, and Rosenkranz in *Der Gedanke*, Vol. I., 1861, p. 126 seq.

Among the French authors of the eighteenth century who touched upon philosophical problems, by far the larger number distinguished themselves more as promoters of general culture and of the transformation of ecclesiastical, political, and social rela-

tions, than as contributors to philosophy as a science. A more detailed account of the contest against despotism in Church and State belongs rather to the province of political history and the history of literature and civilization, than to the history of philosophy. It is particularly the development of sensualism and materialism in this period that is of philosophical interest.

After that Fontenelle (1657–1757), in his *Entretiens sur la pluralité des mondes* (1686), had popularized the astronomical doctrines of Copernicus and Descartes, a like service was rendered to the Newtonian doctrine by Voltaire especially (Nov. 21, 1694, to May 30, 1778), who was perhaps led chiefly by the facts of modern astronomy to the conviction that the dogmatic teachings of the Church were untrue, and who made it his life's work to oppose those teachings. The strictly scientific refutation of the Cartesian, and the establishment of the Newtonian doctrine in France was due above all to the labors of Maupertuis (1698–1759; from 1746 President of the Berlin Academy of Sciences); Maupertuis presented to the Academy of Paris in 1732 his memoirs *Sur les lois de l'attraction* and *Discours sur la figure des astres*, and in 1736–37 conducted the expedition (in which Clairaut was his principal coadjutor) to Lapland, for the purpose of deciding by measurement the controversy as to the form of the earth; he wrote subsequently an *Essai de Philosophie Morale* (1749) and *Système de la Nature* (1751). But it was pre-eminently Voltaire who sought to bring to the knowledge of educated men the bearings of the theory of astronomy upon our general conception of the world. In the years 1726–29 Voltaire resided in London (where he changed his name, Arouet, to Voltaire, an anagram of *Arouet l. j.*, i. e., *Arouet le jeune*). Mathematical physics and astronomy were then engaging the liveliest interest of educated men. In a letter written in 1728, Voltaire says: "When a Frenchman arrives in London he finds a very great change, in philosophy as well as in most other things. In Paris he left the world all full of matter; here he finds absolute vacua. At Paris the universe is seen filled up with ethereal vortices, while here the same space is occupied with the play of the invisible forces of gravitation. In Paris the earth is painted for us longish like an egg, and in London it is oblate like a melon. At Paris the pressure of the moon causes the ebb and flow of tides; in England, on the other hand, the sea gravitates towards the moon, so that at the same time when the Parisians demand high water of the moon, the gentlemen of London require an ebb." The *Lettres sur les Anglais*, written in 1728, were first published at London; they appeared in France in 1734. In the year 1738, Voltaire published at Amsterdam his *Elémens de la philosophie de Newton, mis à la portée de tout le monde* (not published in France till 1741, because D'Aguesseau, the censor, who sympathized with the Cartesians, at first refused permission to print the unpatriotic and unreasonable work, as he deemed it); this was followed by *La Métaphysique de Newton ou parallèle des sentiments de Newton et de Leibniz* (Amst., 1740). But Voltaire was attracted not only by the natural philosophy, but also by the political institutions of England; already, before seeing England, an enemy to ecclesiastical and political despotism, his sojourn in that country contributed especially to the more distinct development of his political views. He says: *La liberté consiste à ne dépendre que des lois;* not absolute equality, but only equality before the law is possible. Voltaire introduced, as a writer of history, the practice of paying constant reference to the customs and culture of nations. In the doctrine of knowledge, and in psychology, ethics, and theology Voltaire followed mainly Locke, whose doctrine of the soul was, he said, to that of Descartes and Malebranche, as history to fiction. Voltaire speaks of Locke as a modest man, of moderate but solid attainments (he says, in the "*Philosophe Ignorant*," written in 1767: "*après tant de courses malheureuses, fatigué, harassé, honteux d'avoir cherché tant de vérités et trouvé tant de chimères, je suis revenu à Locke comme l'enfant prodigue qui retourne chez son père, je me suis rejeté entre les bras d'un homme modeste qui ne feint jamais de savoir ce qu'il ne sait pas, qui, à la vérité, ne possède pas des richesses immenses, mais dont les fonds sont bien assurés et qui jouit du bien le plus solide sans aucune ostentation*"). Voltaire emphasizes more strongly than Locke the possibility of the supposition that matter may think. He cannot make himself believe that there dwells within the brain an unextended substance, like a little God, and he is inclined to regard the substantial soul as an "*abstraction réalisée*," like the ancient goddess Memoria, or such as a personification of the blood-forming force would be. All our ideas arise from the senses. Says Voltaire (*Lettre XIII. sur les Anglais*): "No one will ever make me believe that I am always thinking, and I am no more disposed than Locke to imagine that several weeks after my conception I was a very learned soul, knowing then a thousand things which I forgot at my birth, and having quite uselessly possessed in the uterus knowledge which escaped me as soon as I could have need of it, and which I have never since been able to regain." Yet Voltaire admits that certain ideas, especially the moral ideas, although not innate, arise necessarily from the constitution of human nature and are not of merely conventional authority. Voltaire holds with Locke that the existence of God is demonstrable (by the cosmological, and especially by the teleological argument). He regards the belief in a rewarding and avenging God as necessary, moreover, for the support of the moral order, whence he affirms: "If God did not exist, it would be necessary to invent him; but all nature cries out to us that he does exist." The Leibnitzian doctrine, that the existing world is the best of all possible worlds, is ridiculed by Voltaire in his *Candide ou sur l'Optimisme* (first published in 1757), although at an earlier date he had himself inclined toward the optimistic view; he regards the problem of the reconciliation of evil in the world with the goodness, wisdom, and power of God as insoluble, but hopes for progress towards an improved state, and demands that we seek our satisfaction rather in action than in untenable speculations; in case of a conflict among the attributes of God, he will sooner believe God's power to be limited than his goodness. In his earlier period Voltaire affirmed the freedom of the will, according to the doctrine of Indeterminism, but afterwards admitted that the arguments for Determinism were irrefragable.

Charles de Sécondat, baron de la Brède et de Montesquieu (born at Brède, Jan. 18, 1689, died at Paris, Febr. 20, 1755), first opposed absolutism in State and Church, in his *Lettres Persanes* (Paris, 1721), and then showed, in his *Considérations sur les causes de la grandeur des Romains et de leur décadence* (Paris, 1734), that the fortune of States and nations depends not so much on the accident of single victories or defeats, as on the force of public sentiment and the love of freedom, labor, and country, while in his principal work, the *Esprit des Lois* (Geneva, 1748, etc.), he investigated the bases, conditions, and guarantees of political freedom. In the first work, written before his sojourn in England (1728–29), the form of government prevailing in Switzerland and the Netherlands appears to him as the most excellent of all then existing, but in the later works, especially in the *Esprit des Lois*, that pre-eminence is assigned to the English constitution. In the *Esprit des Lois*, Montesquieu drew from the concrete form of the English government the abstract schematism of the constitutional monarchy, and thereby made a contribution of great and indisputable merit to the theory and praxis of the modern State; but, on the other hand, although he demands, as a principle, that the constitution should vary with the spirit of the nation ("*le gouvernement le plus conforme à la nature est celui dont la disposition particulière se rapporte le*

mieux à la disposition du people pour lequel il est établi "), yet as a matter of fact he indirectly caused provisions, which are judicious only under definite conditions (such as the complete separation of the legislative, executive, and judicial powers, the separation of the aristocratic and democratic elements into an Upper and a Lower House, which should check each other by their vetoes, but might also easily cripple each other), to be considered as universal norms of an orderly and free State, and to be applied to circumstances under which they could only lead to incurable conflicts, to a mischievous confounding of juridical fictions with facts, to the obstruction of legislation, to the prejudice of the security of personal rights, and to the endangering of the very existence of the State.

Jean Baptiste Dubos (born 1670 at Beauvais, died at Paris, 1742), in his *Réflexions critiques sur la poésie, la peinture et la musique* (Par., 1719, etc.), argued that the origin of art was to be found in the need of an excitation of the passions, which should be separated from the inconveniences connected with such excitation in actual life. "Could not art," he asks, "find some means for separating the evil consequences of the majority of passions from that which is agreeable in them? This is what poetry and painting have accomplished." That the mission of art consists in rising above common reality through the imitation of the beautiful in nature, is the doctrine taught by Charles Batteux (1713–1780; *Les Beaux Arts réduits à un même principe*, Paris, 1746), who failed, however, satisfactorily to define the conception of the beautiful.

Jean Jacques Rousseau (born at Geneva, 1712, died in 1778 at Ermenonville), deeply feeling the evils of a degenerate civilization, and yet not perceiving how by a positive progress to meet and vanquish them, preached up a return to a fancied original state of nature. Of all of the Coryphæi of the "illumination" of the eighteenth century, Rousseau has the least sense for historical development. Rousseau's political ideal is the freedom and equality of pure democracy. A rational faith in God, virtue, and immortality was for him all the more a need of the heart, the less his will was controlled by the moral ideas; he attested this faith with greatest zeal after the first manifestation of materialism and pantheism by Diderot and other Encyclopædists, whereas Holbach's atheistical System of Nature appeared first after Rousseau's works, and in opposition to them. In the time of the Revolution, as Montesquieu's ideal of the State furnished the model for the constitutional monarchists, so Rousseau's doctrine controlled the tendencies of Robespierre. Rousseau's principal works are: *Discours sur les sciences et les arts* (occasioned by the following prize-question proposed by the Academy of Dijon in 1749: "Whether the restoration of the sciences and arts has contributed to the purification of morals?"); *Discours sur l'origine et les fondemens de l'inégalité parmi les hommes*, 1753, etc.; *Du contrat social ou principes du droit politique*, Amst., 1762; *Emile, ou sur l'éducation*, 1762.

Julien Offroy de la Mettrie (1709–1751) was educated at Paris by the Jansenists, and then (in 1733) became a student of medicine under Boerhaave (1668–1738), who as a philosopher inclined towards the doctrine of Spinoza. Through observations which he instituted on himself in the midst of a violent fever, respecting the influence of the movements of the blood on the power of thought, he arrived at the conviction that the psychical functions were to be explained by the organization of the body, and this doctrine was set forth by him in his *Histoire naturelle de l'âme, à la Haye* (Paris), 1745. All thinking and willing, says La Mettrie, have their origin in sensations, and are developed by education. A man who should grow up apart from human intercourse, says La Mettrie (in agreement with Arnobius—see above, Vol. I., § 84), would be mentally imbecile. The "soul" increases and decreases with the body; "hence it must be destroyed with the body." From this stand-point, established in the *Hist. nat. de l'âme*, La Mettrie sets out in *L'Homme Machine* (Leyd., 1748, etc.), (which work was written more under the influence of the mechanical psychology of Descartes than under that of Locke's Empiricism), *L'Homme Plante* (Potsdam, 1748), *L'Art de jouir* (1750), and other works. In opposition to the ethics of abstinence, La Mettrie, advancing to the opposite extreme, seeks to justify sensual enjoyment in a manner which is still more artificially exaggerated than frivolous. The power of convention and charlatanry in human life elicits from him the bitter denomination of life as a farce. Frederick the Great, who afforded him protection at his court, wrote his eulogy (given in Assézat's ed. of *L'Homme Machine*, Par., 1865). The best account of his doctrine is given by F. A. Lange, *Gesch. d. Mat.*, pp. 165–186.

Etienne Bonnot de Condillac (1715–1780), in his earliest works, *Essai sur l'origine des connaissances humaines* (Amst., 1746), and *Traité des systèmes* (1749—the latter a polemical work directed against Malebranche, Leibnitz, and Spinoza), remains substantially on the philosophical ground of Locke, but goes beyond Locke in his *Traité des sensations* (London, 1754) and his subsequent works (*Traité des animaux*, Amst., 1755, and a series of text-books for the Prince of Parma, whose education was intrusted to Condillac, etc.). In these latter works he not only no longer recognizes in internal experience a second, independent source of ideas in addition to sensible perception, but seeks to derive all ideas from the latter as their only source. He endeavors to explain all psychical functions genetically, conceiving them as transformations of sensation (*sensations transformées*). To demonstrate that, without the hypothesis of innate ideas, all psychical processes can be deduced from mere sensation, Condillac imagines a marble statue, to which the different senses are given in succession, and, first of all, the sense of smell. This sense furnishes perceptions, with which consciousness (*conscience*) is joined. Some are stronger than others, and are therefore more noticed, *i. e.*, attention is directed to them. Traces of them are left behind, *i. e.*, the statue has memory. If the perceptions arise again in memory, we recollect them, they become objects of apprehension on our part or we have ideas, *i. e.*, mental representations of them. If at the same time new sense-perceptions enter, the division of sensation among them involves comparison and judgment. The original connection and succession of perceptions determine their association when reproduced. The soul dwells on those ideas which are agreeable to it; hence arises the separation of single ideas from others, or abstraction. Let the other senses be added, and let the ideas given be associated with words as their signs, and the mental formation becomes richer. The sense of touch is distinguished from the other senses by its enabling us to perceive the existence of external objects; but its sensations are not first made ideas by memory; they are ideas from the beginning, *i. e.*, they are immediate representations to the mind of something which differs in some manner from perception itself. Condillac also assumes, with Descartes and Locke, that extension is an attribute of things themselves, while colors, sounds, etc., are only subjective sensations. From the recollection by the soul of a past sensation of pleasure arises desire. The I is the totality of sensations (*le moi de chaque homme n'est que la collection des sensations qu'il éprouve et de celles que la mémoire lui rappelle, c'est tout à la fois la conscience de ce qu'il est et le souvenir de ce qu'il a été*). Condillac is a sensationalist, but not a materialist. He holds it not possible that matter should feel and think, since, as extended and divisible, it is an aggregation of parts, whereas feeling and thought imply the unity of the subject (substratum).

Charles Bonnet, a Swiss (1720–93) in his *Essai de psychologie ou Considérations sur*

les opérations de l'âme (projected in 1748, published Lond., 1755), which was followed in 1760 by his *Essai analytique sur les facultés de l'âme*, built up a half-materialistic sensationalism, which he (like Priestley) nevertheless tried to bring into agreement with religious faith by the hypothesis of the resurrection of the body. He was a friend of Albrecht von Haller, to whose less liberal faith, however, his liberal views of the Athanasian dogmas gave offence.

Denis Diderot (1713–1784) and Jean d'Alembert (1717–1783) were the originators and editors of the work embracing the whole field of the sciences and arts, entitled, *Encyclopédie ou Dictionnaire raisonné des sciences, des arts et des métiers*, in 28 volumes (Paris, 1751–72; supplement in 5 vols., Amst., 1776–77, and *Table Analytique*, 2 vols., Paris, 1780). Contributions were made to this Encyclopædia by Voltaire, Rousseau (who, however, from 1757 on, became an opponent of the Encyclopædists), Grimm, Holbach, Turgot, Jaucourt, and others. The admirable introduction (*Discours Préliminaire*), which treats from the Baconian point of view of the classification and method of the sciences, was written by D'Alembert (who, after 1757, had no more to do with the editing of the Encyclopædia). D'Alembert, the mathematician, is in metaphysics a skeptic. The union of parts in organized beings seems to point to a conscious intelligence; but how this intelligence can be related to matter is inconceivable. We have a distinct and complete idea neither of matter nor of mind.—Diderot passed from theism and faith in revelation to pantheism, which recognizes God in natural law and in truth, beauty, and goodness. By the conception of sensation as immanent in all matter, he at once reached and outran the final consequence of materialism. In the place of the monads of Leibnitz he put atoms, in which sensations were bound up. The sensations become conscious in the animal organism. Out of sensations grows thought. In the *Principes de la philosophie morale ou Essai sur le mérite et la vertu* (1745), which is almost a mere reproduction of Shaftesbury's *Inquiry concerning Virtue and Merit*, Diderot confesses his faith in revelation, which faith, in the *Pensées Philosophiques* (à la Haye, 1746), he no longer defends, and still less in the *Promenade d'un sceptique* (written in 1747, but first published in Vol. 4th of the *Mémoires, correspondance et ouvrages inédits de Diderot*); after long wavering his philosophical stand-point becomes fixed in the *Pensées sur l'Interprétation de la Nature* (Paris, 1754). The "*Entretien entre d'Alembert et Diderot*," his most profound work, and one which gives evidence, in spite of all its lightness of form and the absence in it of the external apparatus of demonstration, of a deep insight into the connection of the problems of philosophy, together with *Le rêve d'Alembert* (written in 1769), were likewise first published in the fourth volume of the *Mémoires, correspondance et ouvrages inédits*. Diderot finds the beautiful in that which is according to nature. He wars against the constraint imposed by such rules of art as were set forth, in particular by Boileau, on the basis of the dicta of Horace and others of the ancients.

The Abbé Morelly, carrying to the extreme Locke's affirmation of the pernicious effects of too great inequality of possessions, and probably influenced also by Plato's doctrine of the state, laid down in his *Code de la nature* (Amst., 1755) a communistic doctrine. Selfishness, *le désir d'avoir pour soi*, which is the source of the claim to the possession of private property, is the source of all controversies, of all barbarism, and of all misfortune. In a similar manner, *Mably* (1709–1783), an older brother of Condillac, in his work, *De la Législation ou Principes des lois*, wipes out the boundary between legal regulation and spontaneous benevolence. The investigations in political economy of the "physiocrats" (who gave one-sided prominence to the interests of agriculture) Quesnay (1697–1774), and others, and of Turgot (1727–1781—who avoided

their narrowness of view, and who wrote a *Lettre sur le papier monnaie, Réflexions sur la formation et la distribution des richesses* (1774), etc., as also of the Abbé Galiani, the opponent of the physiocrats, in his *Dialogues sur le commerce des blés* (1770), were directed more to matters of fact. Monopolies and slavery were combated by the Abbé Raynal in his *Hist. philos. du commerce des deux Indes*. Babœuf, in the time of the Revolution, adopted the doctrine of Morelly. Claude Adrien Helvetius (1715–1771), on the contrary, in his book, *De l'esprit* (Paris, 1758), and in the posthumous works: *De l'homme, de ses facultés et de son éducation* (*Londres* [Amst.], 1772), and *Les progrès de la raison dans la recherche du vrai* (Lond., 1775), finds in self-love, which prompts us to seek pleasure and ward off pain, the only proper motive of human conduct, holding that the right guidance of self-love by education and legislation is all that is necessary to bring it into harmony with the common good. Complete suppression of the passions leads to stupidity; passion fructifies the mind, but needs to be regulated. He who secures his own interests in such a manner as not to prejudice, but rather to further the interests of others, is the good man. Not the abolition of property, but the rendering it possible for every one to acquire property, restriction of the "exploitation" of the labor of some by others, reduction of the hours of daily labor to seven or eight, and the extension of culture, are the true problems for legislation. It is obvious that the requirements which Helvetius makes of the State, are founded on the idea of benevolence, while he believes individuals to be bound to follow self-interest; his error is in not having appreciated the gradual progress of man from his limitation to self, as an individual, to higher stages, where he is animated successively with the spirit of comparatively restricted and then of larger societies, and is led beyond motives of egoistic calculation. The substance of what he proposes is better than the grounds on which his proposals rest. Charles François de St. Lambert (1716–1803; *Catéchisme universel*, 1797) and Volney (Constantin François de Chassebœuf, 1757–1820; *Catéchisme du citoyen français*, 1793, second edition, entitled, *La loi naturelle ou principes physiques de la morale, déduits de l'organisation de l'homme et de l'univers; Œuvres complètes*, Paris, 1821, 2d ed., 1836), are prominent among those who followed Helvetius, but modified his principles so as to make them less extreme, and who emphasized the idea of the indissoluble union of the happiness of the individual with the happiness of all; in the "Ruins" (*Les Ruines, ou méditations sur les révolutions des empires*, 4th ed., Paris, 1808), Volney makes a historico-philosophical application of this ethics. The French Revolution was viewed by Volney as an attempt to realize the ideal of the rule of reason. On the same ideal is based Condorcet's (1743–1794) philosophy of history (*Esquisse d'un tableau historique des progrès de l'esprit humain*, 1794).

Jean Baptiste Robinet (born at Rennes, 1735, where he died, Jan. 24, 1820) sought in his principal work, *De la Nature* (4 vols., Amst., 1761–66; vol. I., *nouvelle édit.*, Amst., 1763), as also in his *Considérations philosophiques de la gradation naturelle des formes de l'être, ou des essais de la nature qui apprend à faire l'homme* (Amst., 1767), and *Parallèle de la condition et des facultés de l'homme avec celles des autres animaux, trad. de l'anglais* (Bouillon, 1769), to carry out the idea of a gradual development of the forms of existence. Robinet recognizes a single creative cause of nature, but believes it impossible to ascribe to it personality without falling into a misleading anthropomorphism. Influenced perhaps by Robinet's writings, Dom. Deschamps, the Benedictine (1716–1774), maintained a modified Spinozism in a manuscript written soon after 1770 (the main contents have been but recently edited by Emile Beaussire under the title: *Antécédents de l'hégélianisme dans la philosophie française*, Paris, 1865; cf. *Journal des Savants*, 1866, pp. 609–624), and indirectly also in some works of somewhat earlier

date. Deschamps teaches that the universe (*le tout universel*) is a real being (*un être qui existe*), and the basis (*le fond*) of which all perceivable things are modifications (*nuances*). Deschamps, probably following Robinet, seeks to overthrow the Spinozistic dualism of the attributes thought and extension by a hylozoistic monism. That, in which he appears particularly as a predecessor of Hegel, is his assertion, that truth includes in itself contradictory elements.

The systematic *chef-d'œuvre* of French Materialism in the eighteenth century was the *System of Nature* of Baron Paul Heinrich Dietrich von Holbach (born in 1723 at Heidelsheim, near Bruchsal, in the Palatinate, died Feb. 21, 1789, at Paris), a friend of Diderot. The work was entitled: *Système de la nature ou des lois du monde physique et du monde moral* (Lond., in reality Amst. or Leyden, 1770; nominally by *feu Mirabaud* [died 1760], who had been the Secretary of the Academy at Paris; the same translated into German, with notes, Leipsic, 1841). Holbach's system combines all those elements of the empirical doctrine, which till then had been cultivated rather separately than together, viz.: materialism (La Mettrie's), sensationalism (Condillac's), determinism (which Diderot, too, had admitted), atheism (which this system most openly avows, after the example, in part, of the author of the *Lettre de Thrasybule à Leucippe*, written in the first quarter of the eighteenth century, perhaps by the antiquarian Nic. Fréret, who was born 1688, and died, while Secretary of the Acad. of Inscriptions, in 1749—and in which religious faith is defined as a confusion of the subjective with the objective), and the ethics (Helvetius', qualified by Holbach through the emphasis laid by the latter on the joint interest of all) which was founded on the principle of self-love or of self-interest rightly understood, but which agreed substantially, in most points, with the doctrine of benevolence. Besides the *Système de la Nature*, Holbach is said to have written anonymously a number of works directed against supernaturalistic doctrines, in particular, *Lettres à Eugénie ou préservatif contre les préjugés* (1768), *Examen critique sur la vie et les ouvrages de St. Paul* (1770), *Le bon sens ou idées naturelles opposées aux idées surnaturelles* (1772), *La politique naturelle ou discours sur les vrais principes du gouvernement* (1773), *Système social* (1773), *Eléments de la morale universelle* (1776), *L'éthocratie ou le gouvernement fondé sur la morale universelle* (1776). (Some other works directed expressly against Christian theology, which have often been attributed to Holbach, were written by other persons, such as Damilaville and Naigeon).

Buffon (1707–1788), the naturalist, believed in Naturalism, without openly and unreservedly avowing this belief. At once following and going beyond Condillac, Cabanis (1757–1808; *Rapports du physique et du moral de l'homme*, 1798–1799, in the *Mém. de l'Institut*, then separately in 1802, etc.) cultivated physiology and psychology in a materialistic sense. Destutt de Tracy (1754–1836; *Eléments d'idéologie*, Par., 1801–15; *Commentaire sur l'esprit des lois de Montesquieu*, Par., 1819), Laromiguière (*Leçons de philos. ou essai sur les facultés de l'âme*, Par., 1815–18), and others, sought in the first decennia of the nineteenth century either further to develop or to qualify the system of Sensationalism, but found in philosophers devoted to the Church, and in Royer-Collard and Victor Cousin—who followed partly Descartes and partly Scotch and German philosophers—and in the eclectic or spiritualistic school founded by them, opponents, who very considerably limited their influence. (Cf. Damiron, *Essai sur l'histoire de la philos. en France au dix-neuvième siècle*, Paris, 1828.)

§ 119. Contemporaneously with the French "illumination," under its influence, and in turn influencing it, arose the Skepticism of Hume.

David Hume (1711–1776), philosopher, statesman, and historian, standing on the ground of the Lockian Empiricism, transformed the latter, through his investigations respecting the origin and application of the idea of causality, into a philosophy of Skepticism. Hume finds the origin of the conception of cause in habit, which, he says, leads us to expect that under similar circumstances one event will be followed by another, which we have often seen joined with it, and he limits the application of the conception to those cases in which from given facts we conclude, according to analogies of experience, to others. Hume denies, accordingly, the possibility of our knowing the nature and mode of the objective connection between causes and effects, and the philosophical legitimacy of our attempting to transcend, by means of the causal idea, the whole field of experience and to conclude to the existence of God and the immortality of the soul. It was particularly the anti-theological consequences of this doctrine which awakened a number of Scottish philosophers, headed by Thomas Reid, to a vigorous polemic against it, a polemic weak in its philosophical principle (the appeal to the common sense of men), but which led to numerous, and, in many cases, valuable investigations in empirical psychology and ethics; the doctrine of these Scotch philosophers was subsequently incorporated into the Eclecticism of Cousin and his school. In Germany it was chiefly the Skepticism of Hume which incited Immanuel Kant to the construction of his Critical philosophy.

Hume's *Treatise on Human Nature* appeared in 3 vols., at London, 1739–40, also Lond., 1817; the same in German, translated by Ludw. Heinr. Jakob, Halle, 1790–91. His best-known philosophical work, *Enquiry concerning Human Understanding*, was first published at Lond., 1748; in German (translated by Sulzer), Hamb. and Leips., 1775, and (transl. by W. G. Tennemann), published with an essay on philosophical skepticism, by Karl Leonh. Reinhold, Jena, 1793; a new translation of the same, by J. H. von Kirchmann, constitutes Vol. 13 of the *Philos. Bibliothek*, Berlin, 1869. Under the title of *Essays and Treatises on Several Subjects*, Hume published together, in 1770, the *Essays Moral, Political, and Literary*—which had first appeared in 1742—together with the *Enquiry concerning Human Understanding* and the Essays entitled *A Dissertation on the Passions*, *An Enquiry concerning the Principles of Morals* (first publ. Lond., 1751), and *The Natural History of Religion* (first publ. Lond., 1755); this collection has been repeatedly reprinted. After Hume's death appeared *Dialogues concerning Natural Religion by David Hume*, with the publication of which he had charged his friend Adam Smith; second edition, Lond., 1779; in German (by Schreiter), together with a Dialogue on Atheism by Ernst Platner, Leipsic, 1781. *Essays on Suicide and the Immortality of the Soul, ascribed to the late David Hume*, Lond., 1783; a new edition, Lond., 1789. Complete editions of his works have been published at Edinb., 1827, 1836, and Lond., 1856. Hume's *Autobiography* (written in 1776) was published by Adam Smith, Lond., 1777; the same in Latin, 1787; of him treat J. H. Burton, *Life and Correspondence of D. H.*, Edinb., 1846; Feuerlein, *Hume's Leben und Wirken*, in *Der Gedanke*, Vols. IV. and V., Berlin, 1863 and 1864; F. Papillon, *David Hume, précurseur d'Auguste Comte*, Versailles, 1868.

Born at Edinburgh on the 26th day of April, 1711, Hume lived from 1734 to 1737 in France. At Paris the supposed miracles, wrought particularly at the grave of the Abbé Paris, in the Cemetery of St. Medard, for the persecuted Jansenists, were then

exciting general interest, and gave occasion to disinterested thinkers for psychological investigations respecting the genesis of the belief in miracles. That this was true in Hume's case is affirmed by himself in his essay on miracles. (Similarly the pretended miracles of animal magnetism incited David Friederich Strauss, while yet quite young, to psychological speculations.) During his sojourn in France Hume wrote his first philosophical work: *A Treatise on Human Nature, being an Attempt to introduce the Experimental Method of Reasoning into Moral Subjects*, which work he published after his return to England at London, 1739–40. It received, however, little notice. A more favorable reception was given to the *Essays Moral, Political, and Literary*, published at Edinburgh, in 1742. In the year 1746 Hume is said to have applied in vain for a professorship of moral philosophy at Edinburgh. Not long afterwards (1747) Hume accompanied General St. Clair, as secretary, on a military embassy to the Courts of Vienna and Turin; at Turin Hume revised his work on Human Nature and divided it into several separate treatises; of these the most important is the *Enquiry concerning Human Understanding* (London, 1748). In the year 1749 Hume journeyed back to Scotland. In the year 1751 he published an *Enquiry concerning the Principles of Morals*. His *Political Discourses* (Edinb., 1752, 2d ed. *ib.*, 1753) were received with much applause. A position as librarian, which he commenced to fill at Edinburgh in 1752, and through which a mass of literary sources were made easily accessible to him, was the occasion of his writing the *History of England*, the first volume of which appeared in 1754, the fifth in 1762. In the year 1755 appeared his *Natural History of Religion*, which drew upon him the enmity of many. Hume accompanied as secretary, in 1763, the Earl of Hertford on his embassy to Versailles for the conclusion of peace. At Paris Hume met with a brilliant reception. Returning to England (1766) he was accompanied by Rousseau, whose friend he had become; but he was soon rewarded with ingratitude by Rousseau, to whom the sense of dependence was intolerable, and who thought himself injured by Hume, especially in certain public utterances which he erroneously ascribed to Hume. As Under-Secretary of State in the Foreign Office (at the head of which General Conway stood) Hume conducted in 1767–68 the diplomatic correspondence of England. From 1769 Hume lived in retirement at Edinburgh until his death, on the 25th of August, 1776.

In his principal philosophical work, the *Enquiry concerning Human Understanding*, after announcing as his purpose, not a mere exhortation to virtue, but a thoroughgoing examination of the powers of man and of the limits of our knowledge—hence, not a merely popular, but a scientific philosophic investigation, in which, nevertheless, he proposes, as far as possible, to combine exactness with clearness—Hume proceeds first to inquire into the origin of ideas. He distinguishes between impressions and ideas or thoughts; under the former he understands the lively sensations which we have when we hear, see, feel, or love, hate, desire, will, and under the latter, the less lively ideas of memory or imagination, of which we become conscious when we reflect on any impression. The creative power of thought extends no further than to the faculty of combining, transposing, augmenting, or diminishing the material furnished by the senses and by experience. All the materials of thought are given us through external or internal experience; only their combination is the work of the understanding or the will. All our ideas are copies of perceptions. The idea of God furnishes no exception to this rule; the mind obtains that idea by magnifying the human attributes of wisdom and goodness beyond all limits. The joining of different ideas with each other depends on the three principles of association: similarity, union in space and time, and cause and effect.

All subjects of human reason or inquiry can be divided into two classes: relations of ideas, and facts. To the first class belong the propositions of geometry, arithmetic, and algebra, and, in general, all judgments the evidence of which is founded on intuition or demonstration. All propositions of this kind are discovered by the sole agency of the faculty of thought; they are altogether independent of reality. Even though no circle or triangle existed in nature, the statements of geometry would still be true.* But propositions which relate to matters of objective fact have neither the same degree nor the same kind of evidence. The truth or falsity of such propositions is not demonstrable by ideas alone; for if it were so the supposition of the contrary must involve a contradiction, which is not the case. All reasoning about facts appears to be founded on the relation of cause and effect. It is presupposed that there is a causal connection between the present fact and that which is inferred from it, so that the one is the cause of the other, or both are co-ordinate effects of the same cause. If, therefore, we would obtain a satisfactory insight into the nature of the certainty of inferred facts, we must inquire in what manner we obtain the knowledge of cause and effect.

We acquire, says Hume, the knowledge of the causal nexus in no case by *à priori* inferences, but solely through experience, which shows us certain objects connected according to a constant rule. The effect is entirely different from the cause, and can, consequently, not be discovered in the idea of the latter, nor learned inferentially by the understanding without the aid of experience. A stone or piece of metal left in the air without support falls at once to the ground. This, experience teaches us. But can we possibly discover by *à priori* reasonings the least ground for supposing that the stone or metal might not as well move upwards as towards the centre of the earth? Still less, than the nature of the effect, can the understanding know *à priori* the necessary invariable connection between cause and effect. It follows, hence, that the highest end of human knowledge consists in summing up the empirically discovered causes of natural phenomena, and arranging the multitude of particular effects under a few general causes. But our pains are lost if we attempt to ascertain the causes of these general causes. The ultimate grounds of things are utterly inaccessible to the curiosity and investigation of man. Elasticity, gravity, the cohesion of parts, and the communication of motion by impulsion, are probably the most general causes to which we can trace back the phenomena of nature; but even thus our ignorance of nature is only removed a few degrees further backwards. The like is true in reference to moral philosophy and the science of knowledge. Geometry, great as is her well-deserved renown in respect of the conclusiveness and rigor of her demonstrations, can yet not help us to the knowledge of the ultimate causes in nature; for her only use is in the discovery and application of natural laws; but these laws themselves must be known through experience.

* This opinion of Hume is only an assertion; he has demonstrated nothing. It is tenable only on the extremely questionable hypothesis of the mere subjectivity of space, which hypothesis, indeed, Hume, by abolishing the distinction made by Locke between primitive and secondary qualities, and, later and more decidedly, Kant adopted, but which is by no means necessarily true, and, even supposing it to be true, does not furnish a real explanation of apodictical knowledge. Pure geometry contains no proposition which affirms the existence of a circle or triangle in nature, but only propositions which, assuming the existence of the things denoted by the subjects of the propositions, affirm the necessary connection between those subjects and the asserted predicates. But this connection is affirmed as an objective and real one, and not as merely existing between our ideas, whence, in applied geometry, every circle, triangle, cylinder, cone, etc., which can exist in the sphere of objective reality, is recognized as possessing the predicates demonstrated in pure geometry.

When we perceive similar sensible qualities, we expect from them effects similar to those we have already experienced as arising from them. But it may further be asked, on what this expectation is founded. Were it, by any means, supposable that the course of nature might change, and that the past would furnish no rule for the future, then all experience would be useless, and no more inferences could be drawn from it. The principle which determines all our expectations of similar effects is not any knowledge of the hidden force, through which the one thing brings another into being—for no such force can we observe, whether without or within us; but this principle is habit; the mind is led by habit, on the repetition of similar instances, to expect, with the appearance of the one event, the ordinary accompanying event, and to believe that it will really take place. This connection of events, which we feel in the mind, this habitual transition from one object to its customary accompaniment, is the sensation or impression from which we form the conception of a force or necessary connection. When successive phenomena are continually perceived to be connected, we *feel* the accustomed connection of ideas, which feeling we transfer to the subjects of the perceived phenomena, just as, in general, we are wont to ascribe to external objects the sensations which are occasioned in us by them.*

Hume's philosophical significance is connected principally with his speculations concerning causality. His skepticism is founded on the assertion, that the causal idea, owing to its origin in habit, admits of use only within the field of experience: to reason from data given empirically to that which is transcendent (or lies beyond the whole range of experience), like God and immortality, appears to Hume unlawful. To this is to be added that Hume, particularly in his earliest treatise, expresses an equally negative judgment concerning the idea of substance; the I, he argues, is a complex of ideas, for which we have no right to posit a single substratum or underlying substance. Hume's ethical principle is the feeling of the happiness and misery of man. The moral judgment is based on the satisfaction or disapprobation which an action excites in him who witnesses it. Owing to the natural sympathy of man for his fellows, an action performed in the interest of the common welfare calls forth approbation, and one of an opposite nature, disapprobation.

* Correctly as Hume here describes the commencement of experimental reasoning in animals and men, no less signally has he failed to appreciate and explain the progress of the same, the cessation of the habit of naïvely objectifying the subjective current of ideas and the gradual rise of the mind to knowledge which is objectively true. The animal which walks into the snare, the mere practitioner who only follows a routine, and in extraordinary cases falls into misfortune, through his adherence to his ordinary methods, furnish instances of that phenomenon, which is psychologically explained by Hume; but it is only supplementarily (in a note subsequently added), and then not without a certain degree of inconsistency, that Hume has attempted to show how those series of inferences are accomplished by which man is enabled to out-wit the animal, or the thinker to avoid the errors of the mere practitioner. More comprehensive inductions may lead to more general principles, which furnish the major premises for deductive conclusions, whereby the correctness of the results of less comprehensive inductions are either confirmed and made certain, or disproved; but in proportion as the expectations thus corrected are found in more and more universal agreement with reality, the conception of force, which arises from our reflecting on the sense of effort and on our willing power in general, and the conception of causality, reposing on that of force, acquire objective validity, and the rules, which were not without exceptions, are transformed into laws valid without exception. Hume himself, when he says, "the factor, on which the effect depends, is often involved in the midst of extraneous and external circumstances; the separation of them often requires great attention, exactness, and penetration," acknowledges, although only by implication, the existence of an objective basis of the causal idea. Furthermore, habit itself stands within the sphere of the (psychical) causal nexus, and hence implies the objectivity of the causal relation. In order to vindicate for the idea of causality an objective validity, Kant pronounced it an *à priori* conception, just as he conceived space and time as *à priori* intuitions, whereby, however, the only objectivity which can with full propriety be so called (distinguished by Kant as the "transcendental" from the "empirical"), is given up. See below, § 122.

The Scottish philosophers, Thomas Reid (1710–96; *Inquiry into the Human Mind on the Principles of Common Sense*, London, 1763, etc.; *On the Intellectual Powers of Man*, Edinb., 1785; *On the Active Powers of Man*, Edinb., 1788—the two latter works often printed together as *Essays on the Powers of the Human Mind; Works*, ed. by Dugald Stewart, Edinb., 1804, ed. by Hamilton, *ib.*, 1827, etc.; cf. *Reid and the Philosophy of Common Sense*, a paper written in 1847 by J. F. Ferrier and included in his *Lectures* ed. by Grant and Lushington, London, 1866, Vol. II., pp. 407–459), James Beattie (1735–1803; *Essay on the Nature and Immutability of Truth in Opposition to Sophistry and Scepticism*, Edinb., 1770, etc.), and James Oswald (*Appeal to Common Sense in behalf of Religion*, Edinb., 1766–72), were not able, by their recourse to the principle of "common sense," truly to refute and vanquish Hume's skeptical doctrine. Their doctrines, modified in a measure by independent psychological investigations, were taken up by later Scotch philosophers, such as Dugald Stewart (1753–1828; *Elements of the Philosophy of Human Mind*, Edinb., 1792–1827, etc., Lond., 1862, 1867; *Outlines of Moral Philosophy*, 1793 [with critical notes by J. McCosh, London, 1863], etc.; *Philos. Works*, ed. by Hamilton, 10 vols., Edinb., 1854–58), Thom. Brown (1778–1820; to be distinguished from Peter Brown, Bishop of Cork, who died in 1735, and was a sensationalist in philosophy, but orthodox in theology; Thom. Brown, *Lectures on the Philos. of Human Mind*, 1820, 19th ed., Lond., 1856; *Lectures on Ethics*, *ib.*, 1856), James Mackintosh (1764–1832; *Dissertation on the Progress of Ethical Philosophy, chiefly during the 17th and 18th Centuries*, in the *Encyclop. Brit.*, also separately, Lond., 1830, Edinb., 1836; 3d ed., with preface by W. Whewell, London, 1863 [new ed., 1872]; the same in French by H. Poret, Paris, 1834), and others.

THIRD DIVISION OF MODERN PHILOSOPHY.

PHILOSOPHY IN ITS MOST RECENT PERIOD, OR CRITICISM AND SPECULATION FROM THE TIME OF KANT.

§ 120. The Third Division of the history of Modern Philosophy begins with Kant's critique of human reason. The object of this critique is to establish by an examination of the origin, extent, and limits of human knowledge the distinction between phenomena—whose substance is given us through impressions on the senses, but whose form is a purely subjective product of the mind itself—and real things or "things-in-themselves," which exist out of relation to time, space, or causality. Its result, on the one hand, is to vindicate for empirical investigation complete independence in the sphere of phenomena, while, on the other hand, it recognizes as existing, in addition to the realm of objects of experience, a realm of freedom, open, according to Kant,

only to the moral consciousness, but, according to some of his successors, who expanded Kant's principle of the autonomy of the mind, to the speculative reason also. In Kant's doctrine of the world of phenomena, the subjective origin, which he assigns to the forms of knowledge, constitutes a (subjective-) idealistic element, while the assumption that the material of thought is given from without, is a realistic one. In his doctrine of things in themselves, the function ascribed to these things, of affecting our senses, is a realistic element, while the freedom claimed for them is an idealistic one. The dualism of these idealistic and realistic elements, which are placed by Kant, without mediation, side by side, and which are by no means (not even in the *Critique of the Judging Faculty*) combined in perfect harmony, could not but occasion the attempt to build up, in a twofold manner, a consequent and in all parts harmonious system of the whole of philosophy, either, namely, by sacrificing the realistic postulates of Kant in favor of his idealistic teachings, or, conversely, by giving up, or, at least, very considerably modifying, the latter in favor of the former. The former alternative was chosen by Fichte, and the latter by Herbart. Fichte's subjective idealism formed the point of departure for Schelling's prevailingly objective idealism, and the latter served a similar purpose for Hegel's absolute idealism. Others (among whom Schleiermacher may be numbered) sought to effect the harmonious union of the idealistic and realistic elements in a doctrine of Ideal-Realism. In the period embraced in this division, the relation of philosophy to positive investigation, both natural and historical, to poetry, to political conditions, and to religious life, and, in short, to the general development of human culture, changes with the varying force of the motives to philosophical development inherent in the changing state of philosophy itself; in the first decades philosophy exerts a determining influence on these other sides of intellectual life, while in the subsequent period, when the general interest is less turned towards philosophy, philosophy experiences more their influence.

The illustration and demonstration of these introductory statements can only be accomplished in the course of the following expositions; before the presentation of the systems to which reference has been made, the attempt to furnish such illustration and demonstration would involve too great abstractness, and might easily lead to wrong judgments. Only to one thing may it here be allowed again to direct attention, namely, to the fact that the innermost soul of the whole process of development in modern philosophy is not a mere immanent dialectic of speculative principles, but is rather the struggle between religious convictions, handed down from the past and deeply rooted

in the modern mind and heart, and the scientific results of modern investigations in the fields of nature and mind, together with the attempt to reconcile both. While Dogmatism had believed in the possibility of combining, in one complete system of philosophy, fundamental theological principles with the doctrines of natural science, while Empiricism had excluded the affirmations of religion from the field of science—whether with a view to asserting for them another province or to denying them altogether—and while Skepticism had doubted the possibility of solving the problems in question, Kant (who correctly grasped the vital point in the philosophical inquiries of the period immediately preceding his own) opened up, by his Criticism, a new path, denying, as a result of his speculations concerning the limits of the knowledge attainable by human reason, the dogmatic postulate of attainable harmony, adopting the Empiricists' limitation of scientific knowledge, but in an essentially altered sense (namely, by restricting such knowledge to the sphere of phenomena alone), and at once appropriating the results of Skepticism and (through his doctrine of a sphere of absolute reality, within which man could attain to moral certainty) overstepping them. The later developments in philosophy were, in a certain sense, modified renewals of earlier systems, under the influence and, in part, on the ground of Kantism.

Works especially relating to modern philosophy, beginning with Kant, are the following (with which are to be compared the parts treating of the same subject in the more general works cited above, Vol. I., § 4, and Vol. II., § 1):

Karl Ludw. Michelet, *Geschichte der letzten Systeme der Philosophie in Deutschland von Kant bis Hegel*, 2 Vols., Berlin, 1837–38, and *Entwickelungsgeschichte der neuesten deutschen Philosophie*, Berlin, 1843.

Heinr. Mor. Chalybäus, *Histor. Entwicklung der speculativen Philosophie in Deutschland von Kant bis Hegel*, Dresden, 1837, 5th ed., 1860. [English translation from 4th ed. by Alfred Tulk, London, 1854.—Tr.]

Friedr. Karl Biedermann, *Die deutsche Philosophie von Kant bis auf unsere Tage*, Leipsic, 1842–43.

A. Ott, *Hégel et la philosophie allemande, ou exposé et examen critique des principaux systèmes de la philosophie allemande depuis Kant*, Paris, 1843.

A. S. Willm, *Histoire de la philosophie allemande depuis Kant jusqu'à Hégel*, Paris, 1846–49.

L. Wocquier, *Essai sur le mouvement philosophique de l'Allemagne depuis Kant jusqu'à nos jours*, Brussels, Ghent, and Leips., 1852.

C. Fortlage, *Genetische Geschichte der Philosophie seit Kant*, Leipsic, 1852.

H. Ritter, *Versuch zur Verständigung über die neueste deutsche Philosophie seit Kant*, in the *Allgem. Monatsschrift für Wiss. u. Litt.*, and also published separately, Brunswick, 1853.

G. Weigelt, *Zur Geschichte der neueren Philosophie*, Hamburg, 1854–55.

Carl Herm. Kirchner, *Die speculativen Systeme seit Kant und die philosophische Aufgabe der Gegenwart*, Leipsic, 1860.

A. Foucher de Careil, *Hégel et Schopenhauer, études sur la philosophie allemande depuis Kant jusqu'à nos jours*, Paris, 1862.

Ad. Drechsler, *Charakteristik der philosophischen Systeme seit Kant*, Dresden, 1863.

O. Liebmann, *Kant und die Epigonen*, Stuttgart, 1865.

§ 121. Immanuel Kant was born on the 22d day of April, 1724, at Königsberg, in Eastern Prussia, where he died, February 12, 1804. He received his education and taught as a University-Professor in his native city. On Kant's earliest philosophical opinions the philosophy of Wolff and the physics of Newton exerted a controlling influence; it was only in a later period, beginning with 1769, that he developed the critical philosophy which is set forth in his principal works. Of the works of Kant belonging to the period preceding the critical philosophy, the most important is the *General History of Nature and*

Theory of the Heavens. His principal works of the critical period are the *Critique of the Pure Reason*, which was first published in 1781, and again, in revised form, in 1787, the *Critique of the Practical Reason*, published in 1788, and the *Critique of the Faculty of Judgment*, written in 1790. The *Metaphysical Principles of Natural Science* (1786), the *Religion within the Limits of the Mere Reason* (1793), and other smaller works contain the application of the principles of the critical philosophy to particular departments of philosophical inquiry. In investigation and teaching, as well as in his external life, Kant constantly gave evidence of strict conscientiousness and unremitting loyalty to duty.

Works on Kant's life and character are the following: Ludwig Ernst Borowski, *Darstellung des Lebens und Charakters Kants*, Königsberg, 1804 (a biography drawn up in 1792, then revised by Kant himself, completed and published by the author after Kant's death, and containing much valuable information, especially on Kant's family and early life), Reinhold Bernhard Jachmann, *Immanuel Kant, in Briefen an einen Freund*, Königsberg, 1804 (a portraiture of Kant's character, founded on knowledge acquired in personal intercourse with Kant in 1784–94, preceded by a biographical sketch), Ehregott Andreas Christoph Wasianski *Kant in seinen letzten Lebensjahren*, Königsberg, 1804 (a faithful account of the gradual decay of Kant's mental and bodily powers), Theodor Rink, *Ansichten aus I. Kant's Leben*, Königsberg, 1805, F. Bouterwek, *I. Kant*, Hamburg, 1805, and others, especially Friedr. Wilh. Schubert, *Imm. Kant's Biographie*, in Kant's *Werke*, ed. by Rosenkranz and Schubert, Vol. XI., Part 2, Leipsic, 1842 (summing up what had been written before and adding to it much new matter). Further additions to the same subject have been made in Chr. Friedr. Reusch's *Kant und seine Tischgenossen aus dem Nachlass des jüngsten derselben* (printed separately, from the *Neue Preuss. Provinzialbl.*, Vol. VI., Nos. 4 and 5, Königsberg, 1848), and in *Kantiana, Beiträge zu Imm. Kant's Leben und Schriften*, ed. by Rud. Reicke (from the *N. Pr. Provinzial-Blätter*), Königsberg, 1860; the latter work contains a discourse on Kant delivered by Professor Wald, Councillor of the Consistory, in the year 1804, together with the notices on which the same was based, and also, in particular, many valuable remarks by Professor Kraus, the intimate friend of Kant, as also a few addenda to Kant's writings. From these sources the later writers of Kant's life (among whom Kuno Fischer—author of *Kant's Leben und die Grundlagen seiner Lehre, drei Vorträge*, Mannheim, 1860, also *Gesch. der neueren Ph.*, Vol. III., Mannheim and Heidelberg, 1860, pp. 42–110, 2d ed. *ib.*, 1869—deserves distinguished mention) have drawn.

Two complete editions of Kant's works have been published: *Immanuel Kant's Werke*, edited by G. Hartenstein, 10 vols., Leipsic (Modes and Baumann), 1838–39, and *I. Kant's sämmtliche Werke*, edited by Karl Rosenkranz and Friedr. Wilh. Schubert, Leipsic (Leop. Voss), 1838–42, in 12 volumes, the last of which contains the "History of the Kantian Philosophy," by K. Rosenkranz. Hartenstein's edition is in part the more accurate one; the edition of Ros. and Sch. is more elegant and richer in material and in suggestive remarks. The general arrangement in both is systematic. In H.'s edition the logical and metaphysical works are followed first by the works on the practical reason and the faculty of judgment, and these by the works on natural philosophy, while in Ros. and Schu. the order is: Logic (including Metaphysics), Natural Philosophy, and Philosophy of Mind. The latter arrangement is better adapted for easy over-sight; but far preferable is the chronological arrangement of the whole (excepting only the letters, and, possibly, a few minor works), which gives the reader a view of Kant's philosophical development. This arrangement is adopted in Hartenstein's new edition of Kant's works: *I. Kant's sämmtliche Werke, in chronol. Reihenfolge*, 8 vols., Leips. (Leop. Voss), 1867–68.

[Kant's *Essays and Treatises*, 2 vols., London, 1798. Contents of Vol. I.: (1) *An Answer to the Question, What is Enlightening?* (2) *The Groundwork of the Metaphysics of Morals.* (3) *The False Subtility of the four Syllogistic Figures Evinced.* (4) *On the Popular Saying, "That may be true in Theory, but does not hold good in the Praxis."* (5) *The Injustice of Counterfeiting Books.* (6) *Eternal Peace.* (7) *The Conjectural Beginning of the History of Mankind.* (8) *An Inquiry concerning the Perspicuity of the Principles of Natural Theology and of Morals.* (9) *What means "To orient one's self in thinking?"* (10) *An Idea of an Universal History in a Cosmopolitical View.* Contents of Vol. II.: (1) *Observations on the Feeling of the Beautiful and Sublime.* (2) *Something on the Influence of the Moon on the Temperature of the Air.* (3) *History and Physiography of the most Remarkable Cases of the Earthquake, which, towards the end of 1755, shook a Great Part of the Earth.* (4) *On the Volcanoes in the Moon.* (5) *Of a Gentle Tone lately assumed in Philosophy.* (6) *On the Failure of all the Philos. Essays in the Théodicée.* (7) *The only possible Argument for the Demonstration of the Existence of God.* (8) *Religion within the Sphere of Naked Reason.* (9) *The End of All Things.*

"*Metaphysical Works of the celebrated Immanuel Kant, translated from the German, with a Sketch of his Life and Writings, by John Richardson, many years a student of the Kantian Philosophy. Containing: 1. Logic. 2. Prolegomena to Future Metaphysics. 3. Inquiry into the Proofs for the Existence of God, and into the Theodicy.*" London, 1836. No. 3, in the contents of this volume, is a conglomerate of extracts from various writings of Kant's, although the fact of its being such a conglomerate is not indicated by the translator. His proceeding in this matter is in so far uncritical and unfair, as he combines with extracts from Kant's *Critique* other extracts from a work (*On the Only Possible Proof for the Existence of God*) belonging to the pre-critical period in Kant's philos. development.

Theory of Religion, transl. by J. W. Semple, 1838. Kant's "*Critick of Pure Reason, translated*" and "*with notes and explanation of terms by Francis Heywood*," London: Pickering, 1st ed., 1838, 2d ed., 1848. By the same author: "*An Analysis of Kant's Critick*," etc., *ib.*, 1844. *Critique of Pure Reason*, translated by M. D. Meiklejohn, London, Bohn, 1855.

Other English translations of Kant's works, and works in English on Kant, are mentioned by the author at the end of this, and in the literature of the following paragraph.—*Tr.*]

The Cant family is of Scotch descent. Johann Georg Cant followed at Königsberg the saddler's trade. The fourth child by his marriage with Anna Regina Reuter was Immanuel, who was born on the 22d of April, 1724, and who, in order to prevent the mispronunciation of his name as *Zant* [Anglicé: *Tsant*], wrote it *Kant*. One of his brothers, Johann Heinrich (1735–1800), became a theologian; of three sisters, the youngest survived her brother Immanuel. Six other children died while young. Kant received a strict religious education, in the spirit of the then widely-extended Pietism, whose principal light was Franz Albert Schulz (died 1763). Schulz became, in 1731, pastor of the *Altstadt* Church and Consistorial Councillor, and in 1732 also an Ordinary Professor of Theology at the University, and in 1733 Director of the Collegium Fridericianum. From Easter in 1732 till Michaelmas in 1740, Kant studied at the Collegium Fridericianum in preparation for the University. Among his teachers Kant prized especially (in addition to Fr. Alb. Schulz) Joh. Friedr. Heydenreich, the instructor in Latin; among his school-fellows, the most noteworthy was David Ruhnken (who left the Gymnasium at Easter, in 1741), subsequently Professor of Philology at Leyden, who says in a letter to Kant, dated March 10, 1771, speaking of the time when they were at the Gymnasium: *tetrica illa quidem, sed utili nec pœnitenda fanaticorum disciplina continebamur*, and adds, that even then all cherished the greatest expectations concerning Kant. Kant was at this time especially devoted to the Roman classics, which he read with zeal, and was able to express himself well in Latin. At the University of Königsberg, which he entered at Michaelmas in 1740, Kant studied philosophy, mathematics, and theology. He heard with special interest the lectures of Martin Knutzen, Professor Extraordinarius, on mathematics and philosophy, and familiarized himself particularly with the ideas of Newton; he heard also lectures on physics by Professor Teske, and philosophical lectures by other professors (who, however, acquired but little influence over him), and lectures on dogmatics by Franz Albert Schulz, who found means to combine the philosophy of Wolff with his own pietistic convictions. After the completion of his studies at the University, Kant filled, in the years 1746–55, positions as private tutor, first in the family of Andersch, a reformed pastor, near Gumbinnen, then in the family of Von Hülsen, the proprietor of a manor at Arensdorf near Mohrungen, and finally in the family of Count Kayserling at Rautenberg. He then qualified himself by the usual disputation to lecture at the University of Königsberg, and opened with the winter semester of 1755 his lectures on mathematics and physics, logic, metaphysics, morals, and philosophical encyclopædia;

he commenced also, in 1757, to lecture on physical geography, and in 1760 on natural theology and anthropology. In April, 1756, he sought to obtain the position of professor extraordinarius of mathematics and philosophy, a position made vacant by the early death of Knutzen; but his application was unsuccessful, because the government had resolved to discontinue the extraordinary professorships—a resolution which, conceived in view of impending war, effected what were in comparison extremely trifling savings by means of unrespecting severity toward unprovided teachers. The ordinary professorship of logic and metaphysics, which became vacant in the year 1758, was given by the Russian Governor then in office to Buck, a *Docent* of mathematics and philosophy, of longer standing than Kant; it was not till twelve years later —in 1770—that Kant was advanced to the same position, while Buck received the ordinary professorship of mathematics. In 1766 a position was given to the "talented, and, by his learned works, distinguished Magister Kant," as Sub-Librarian in the library of the Royal Castle, with a salary of 62 thalers, which position he relinquished in 1772. A call to Halle and other offers of positions were rejected by Kant. He taught until the autumn of 1797, when the increasing infirmities of age led him to give up lecturing. As an academical instructor he sought rather to excite his auditors to think for themselves, than to communicate to them results; his lectures were an expression of the processes of his own thinking. Kant's hearers prized him for his recommendation of "simplicity in thought and naturalness in life," and because he himself practised upon his own recommendations (see Reinhold Lenz, in a poem addressed to Kant on the occasion of his entering upon his professorial duties, Aug. 21st, 1770, communicated by Reicke in the *Altpr. Monatsschr.*, iv. 7, 1867).

Kant took a lively interest in the political events of his time; his opinions were those of a consistent liberalist. He sympathized with the Americans in their War of Independence, and with the French in their Revolution, which promised to realize the idea of political freedom, just as, in his theory of education, he approved the principles of Rousseau. Says Kant (in the Posthumous Fragments, *Werke*, Vol. XI., Part 1, p. 253 seq.): "Nothing can be more terrible than that the actions of one man should be subject to the will of another. Hence no dread can be more natural than that of servitude. For a similar reason the child cries and becomes exasperated when he is called to do that which others will that he shall do, without having tried to enlist his sympathies for the work, and he desires only that he may soon be a man, that he may do as he likes."—"Even with us, every man is held contemptible who occupies a very subordinate position."—To treat every man as an end in himself, not as a mere means, is a fundamental requirement of the Kantian ethics. But Kant desired human independence essentially in the interest of self-determination according to the spirit of the moral law. Cf. Schubert, *Kant und seine Stellung zur Politik*, in Raumer's *Hist. Taschenbuch*, 1838, p. 575 seq., where in particular the great power of the conservative, monarchical spirit in Kant, in spite of all his liberalism, is demonstrated.

Characteristic of Kant's spirit is the following confession in a letter to Moses Mendelssohn, dated April 8, 1766: "Whatever faults there may be, which the most steadfast resolution is impotent at all times fully to avoid, I am sure that I shall never become inconstant and guilty of changing my appearances with each change in the world around me, after having learned through the greatest part of my life to do without and to despise the most of those things which usually corrupt the character; and therefore the loss of that self-approval, which springs from the consciousness of an unfeigned spirit, would be the greatest evil that could possibly—but surely never will—befall me. I think, indeed, many things, with the clearest possible conviction of their truth, which I

shall never have the courage to say; but never shall I say anything which I do not think."

Intimate friendship bound Kant to the Englishman Green (died 1784), who resembled him in love of independence and in conscientious punctuality; and to Motherby, a merchant, Ruffman, a bank-director, and Wobser, the head-ranger at Moditten (near Königsberg), in whose house he occasionally passed his vacations, and where, in particular, he wrote his "Observations concerning the Beautiful and the Sublime." Kant was also a friend of Hippel and Hamann. Of his colleagues, John Schultz, court-preacher and Professor of Mathematics, who was the first to adopt and expound his doctrine, and Kraus, Professor of the Science of Finance, were his particular friends. The widest circle of venerators and friends surrounded Kant in his old age, when he was honored as the head of the widely-extending critical school; he was most immoderately praised by those to whom the new philosophy became a kind of new religion (by Baggesen, for example, who regarded Kant as a second Messiah).

Baron Von Zedlitz, who was Minister of Ecclesiastical Affairs under Frederick the Great, and retained the same office under the next king until 1788, held Kant in high estimation, and under the ministry of Wöllner he enjoyed also at first the favor of the government. But when he purposed to publish the papers which together make up the "Religion within the Limits of the mere Reason," he came into conflict with the censorship, which was to be exercised on the basis of the religious edict making the symbolic writings of the Lutheran and Reformed Churches an obligatory guide in doctrine. For the first of those papers: "On Radical Evil," in which Kant develops that side of his religious philosophy which harmonizes substantially with Pietism, the *Imprimatur* was allowed, although only with the observation, "that it might be printed, since only deep-thinking scholars read the writings of Kant." It appeared in April, 1792, in the "*Berliner Monatsschrift.*" But for the second paper: "On the Contest between the Good and Evil Principles for the Control of Man," the right to print was denied by the College of Censors at Berlin. Kant's only alternative was to submit his work to a theological Faculty. The theological Faculty of his native city permitted its publication, and the "*Religion innerhalb der Grenzen der blossen Vernunft*" was published at Easter, in 1793, by Nicolovius, at Königsberg, and a second edition was published in 1794. But in order to cut off this alternative for Kant in the future, his opponents procured a royal cabinet order (dated Oct. 1st, 1794), in which Kant was charged with "distorting and degrading many of the chief and fundamental doctrines of Holy Scripture and of Christianity," and was required to make use of his reputation and his talents for the furtherance of the "paternal intention of the sovereign." All of the theological and philosophical instructors at the University of Königsberg were also bound, over their signatures, not to lecture on Kant's "Religion within the Limits of the mere Reason." Kant held (as is shown by a fragment in his Remains, see Schubert, XI., 2, p. 138) that to recant or deny his convictions would be despicable, but that silence, as the case then stood, was his duty as a subject; all which one said must be true, but it was not necessary to say openly all that is true; he announced, therefore, in his letter of defence, his readiness, "as his Majesty's most loyal subject," thenceforth to abstain from all public discourses on religion from the chair or in writings. Since Kant's only motive for silence lay in his duty as a subject to King Frederick William II., he found himself, after the death of this king, again possessing the right to express himself publicly. In *Der Streit der Facultäten* [The Conflict of the Faculties] he defended the right of philosophers to complete freedom of thought and expression, so long as they remain on their own ground and do not intermeddle with biblical theology as such, and

gave vent to his disgust at a despotism which sought by compulsory laws to procure respect for that which could only be truly respected when respected freely. Yet Kant was unable to resume his lectures on religious philosophy; his bodily and mental force was broken. He succumbed to a weakness of old age, which, gradually increasing, deprived him in his last months of memory and the power of thought, while his doctrine was celebrating brilliant triumphs at most of the German Universities. The development and violation of his philosophical principle by Fichte, in his "*Wissenschaftslehre*," were disapproved by Kant, whose counter-declaration was nevertheless unable to check the progress of philosophical speculation in the direction of idealism.

Kant's writings are the following: I. Works belonging to the time preceding the critical period, *i. e.*, to Kant's first or genetic period, in which he occupied, in the main, the ground of the Leibnitzo-Wolffian Dogmatism, although in detail he, in many cases, and especially through the influence of Newton's and Euler's conceptions, passed beyond this stand-point and approached more toward Empiricism and Skepticism, and so indirectly toward his later critical philosophy: *Gedanken von der wahren Schätzung der lebendigen Kräfte und Beurtheilung der Beweise, deren sich Leibnitz und andere Mechaniker in dieser Streitsache bedient haben*, Königsberg, 1747 (not 1746, the date given on the title-page; the dedication is dated April 22d, 1747). The question, whether the force of a body in motion is to be measured (with Leibnitz and others) by the product of the mass and the square of the velocity (mv^2) or (with Descartes, Euler, and others) by the product of the mass and the simple velocity (mv), is here termed by Kant the source of one of the greatest schisms existing among the geometricians of Europe, and he expresses the hope that he may be able to contribute to its composition. He advances against the Leibnitzian view, then prevalent in Germany, several objections which tend in favor of the Cartesian, but admits, nevertheless, the former with a certain limitation. Kant divides, namely (§§ 15, 23, 118, 119), all motions into two classes, the one class including motions supposed to persist in the body to which they are communicated and to continue *in infinitum*, unless opposed by some obstacle, the other consisting of motions which cease, though opposed by nothing, as soon as the external force, by which they were produced, ceases to operate. (This "division," indeed, like many things in this earliest production, is completely erroneous.) Kant affirms that the Leibnitzian principle applies to the former class, and the Cartesian to the latter. If the conception of force be regarded, as is now customary, as merely an accessory conception, the controversy itself can no longer exist, since then only the determination of what are the phenomena of motion and their laws is directly of objective importance, while the definition of force becomes a question of methodical convenience. If by force is meant a cause proportionate to the quantity of the motion of a body, the Cartesian principle of course applies; but if the power of the body in motion to produce certain special effects, *e. g.*, to overcome a continuous and uniform resistance, is what is meant by force, the Leibnitzian formula is applicable, according to which, the "work" performed by the "force" is equal to the difference of the products of half the mass multiplied by the squares of the velocity at the commencement and at the end of the motion. (At the present time, as is known, mv is used to designate the "quantity of motion," and mv^2 the "living force." In the case of a body falling freely, the final velocity after n seconds $= 2ng$, and the distance traversed in n seconds $= n^2g$. One-half of the product of the mass by the square of the velocity $= \frac{1}{2}mv^2 = \frac{1}{2}m.\ 4n^2g^2 = 2m\,n^2g^2 = 2$ gm. n^2g, or the product of the "moving force" (2 gm) by the distance (n^2g). The heights to which bodies rise when thrown upwards vary, therefore, as the squares of their initial velocities, and in like manner, generally, the

"work" performed by a moving body is measured by half the product of the mass into the square of the velocity.) D'Alembert showed, as early as 1743, that analytical mechanics can leave the disputed question one side, since it is only a dispute about words. From the present stand-point of science, B. W. H. Lexis (among others) expresses the following judgment in his *De generalibus motus legibus* (*diss. inaug.*), Bonn, 1859: "*Nostro tempore miramur quod tot viri docti non viderint totam disceptationem verti circa merum verbum 'vis,' quod ab aliis alio sensu adhibebatur.—Kantius, gravibus quidem erroribus laborans, tamen multis locis, ex. gr.* §§ 88 *et* 89 (in which Kant treats of the greater facility with which faults in demonstration are discovered after a previous weighing of the demonstrative force of the arguments) *profundiorem rei ostendit perspicientiam.*" Yet at the bottom of the discussions lay concealed by the contest of words the problem, how to combine the principle of the equality of cause and effect with facts. Cf. G. Reuschle, in the *Deutsche Vierteljahrsschrift* for April–June, 1868, pp. 53–55. A characteristic affirmation is made by Kant in § 19, that metaphysics, like many other sciences, had only reached the threshold of well-grounded knowledge.

Untersuchung der Frage, ob die Erde in ihrer Umdrehung um die Achse einige Veränderungen seit den ersten Zeiten ihres Ursprungs erlitten habe, in the *Königsberger Nachrichten*, 1754. Kant proposes to investigate this question [whether the time of the earth's daily rotation has changed] not historically, but only physically; he finds in the ebb and flow of the tides a cause of constant retardation. Cf. Reuschle, as above cited, pp. 74–82.

Die Frage, ob die Erde veralte, physikalisch erwogen, *ib.*, 1754. Kant does not decide, but only examines this question [whether the earth is wearing out], criticising various arguments for the affirmative. Cf. Reuschle, *ib.*, pp. 65–66.

Allgemeine Naturgeschichte und Theorie des Himmels [General History of Nature and Theory of the Heavens], Königsberg and Leipsic, 1755. This work appeared anonymously. It is dedicated to Frederick II. The fundamental philosophical idea of the work is the compatibility of a mechanical explanation of nature, which, without arbitrary limitations, seeks in all cases a natural cause in place of all other causes, with a teleology which views all nature as depending on God. Kant, therefore, sees elements of truth in the opposed doctrines. That the forces of nature themselves work intelligently, bears witness to the existence of an intelligent author of nature. Matter is subject to certain laws, left to which alone she must necessarily bring forth combinations of beauty. But this very fact compels the assumption that God exists. For how were it possible that things of various natures in combination with each other should strive to effect such exquisite accords and beauties, unless they owned a common origin in an infinite mind, in which the essential qualities of all things were wisely planned? If their natures were determined by an intrinsic necessity, independently of each other, they would not, as a result of their natural tendencies, adjust themselves to each other, exactly as a reflecting, prudent choice would combine them. Since God works through the laws implanted in matter itself, the immediate cause of every result is to be sought in the forces of nature themselves. The original centrifugal motion which, together with gravitation, determines the course of the planets, is also to be explained by the agency of natural forces. It originated when the matter of the sun and planets, which was at first an extended, vaporous mass, began to shape itself into balls, the collision of the masses causing side motions. The genesis and stability of the system of fixed stars are to be conceived according to the analogy of the genesis and stability of the planetary system. (With Kant's theory of the stability of the system of fixed stars agrees, in its most essential features, the result of Herschel's investigations,

and with his theory of their origin, the theory of Laplace; but what with Kant was but a general conjecture, rests with Herschel on an experimental basis, and the theory of Laplace differs from that of Kant by the assumption of a gradual separation of the planetary masses from the revolving mass of the sun, and by its more rigid mathematical demonstrations. The questions raised by Newton, how the different nature of the paths of the planets and comets was to be explained, and why the fixed stars do not collide with each other, find their answers in the theory of Kant and Laplace, who also attempt to explain genetically, by natural law, the tangential motion which Newton ascribed to the direct agency of God [a God standing, as it were, outside and simply giving the world a push—in the language of Goethe, in *Faust*]). Kant holds that most of the planets are inhabited, and that the inhabitants of the planets farthest from the sun are the most perfect. Who knows, asks Kant, that Jupiter's satellites may not be intended to give us light at some future time? (Cf. Ueberweg, *Ueber Kant's Allg. Naturg.*, etc., in the *Altpreuss. Monatsschrift*, Vol. II., No. 4, Königsberg, 1865, pp. 339–353, E. Hay, *Ueber Kant's Kosmogonie*, *ib.*, Vol. III., No. 4, 1866, pp. 312–322, and Reuschle, as above cited, pp. 82–102.)

Meditationum quarundam de igne succincta delineatio, the Dissertation which accompanied Kant's application for the doctorate of philosophy, submitted to the philos. faculty at Königsberg in 1755, and first published by Schubert from Kant's original MS., in the *Werke*, V., pp. 233–254, Leipz., 1839. The material elements do not attract each other by immediate contact, but through the medium of an interjacent elastic matter, which is identical with the matter of heat and light; light, as well as heat, is not an efflux of material parts from luminous bodies, but—according to the theory then newly confirmed by Euler's authority—a propagation of vibratory motion in the all-pervading ether. Flame is "*vapor ignitus*." (A judgment of the particular propositions of this dissertation from the present stand-point of physics and chemistry, is given by Gustav Werther, *Altpreuss. Monatsschrift*, Königsberg, 1866, pp. 441–447; cf. Reuschle, as above cited, pp. 55–56.)

Principiorum primorum cognitionis metaphysicæ nova dilucidatio, Kant's habilitation essay, Königsberg, 1755. Kant develops substantially only the Leibnitzian principles, although with certain noticeable modifications. Not the principle of contradiction, but that of identity is recognized by him as the absolutely first principle. The principle of identity, he says, includes the two propositions: "whatever is, is" (*quidquid est, est*), as the principle of affirmative truths, and "whatever is not, is not" (*quidquid non est, non est*), as the principle of negative truths. Of the principle of determining reason (*ratio determinans*, for which expression Kant objects to the substitution of *ratio sufficiens*) two forms are distinguished by Kant, their difference being indicated by the expressions *ratio cur* or *antecedenter determinans*, for the one, and *ratio quod* or *consequenter determinans*, for the other; the former he identifies with the *ratio essendi vel fiendi*, the latter with the *ratio cognoscendi* (which is inexact, in so far as the case of a knowledge of effects derived from the knowledge of their objective causes is either left unnoticed, or is confounded [in the *ratio fiendi*] with the case of the development of effects from such causes). Kant defends the principle of determining reason against the attacks which Crusius especially had directed against it, and in particular against the objection that it destroys human freedom, defining (in accordance with the spirit of Leibnitz's doctrine) as follows: *Spontaneitas est actio a principio interno profecta; quando hæc repræsentationi optimi conformiter determinatur, dicitur libertas* (which definition Kant himself subsequently rejected). From the principle of determining reason Kant deduces a number of corollaries, the most important of which is: *quantitas realitatis absolutæ in mundo naturaliter non mutatur nec augescendo nec decrescendo*, a proposition which Kant treats as true of spiritual forces, except when God directly interferes. Kant rejects the *principium identitatis indiscernibilium*, according to which there exist no two things perfectly alike in the universe, but deduces from the principle of determining reason two other general principles: (1) the principle of succession, that all change depends on the combination of substances with each other (a principle subsequently carried out by Herbart; both Kant and H. conclude, on the authority of this principle, from the variation in our ideas to the real presence of external objects); (2) the principle of co-existence: the real combination of finite substances with each other depends only on the union in which the common ground of their existence, the divine intellect, thinks and maintains them (a proposition in which Kant approaches towards the Leibnitzian doctrine of pre-established harmony, without, nevertheless, assenting to it; still less does he approve the theory of Occasionalism; it is rather true, he here teaches, that God has established a real "universal action of spirits on bodies and of bodies on spirits," not a mere *consensus*, but a real *dependentia;* on the other hand, Kant distinguishes carefully this "*systema universalis substantiarum commercii*," thus established, from the mere *influxus physicus* of efficient causes).

Metaphysicæ cum geometria junctæ usus in philosophia naturali, cujus specimen I. continet monadologiam physicam, Königsberg, 1756, a dissertation defended by Kant, as an applicant for an extraordinary professorship (which, however, he failed to secure for the reason given above). In the place of the punctual monads of Leibnitz, Kant assumes the existence of material elements, which are extended and yet simple, because not consisting of a plurality of substances, and thus (going back to the theory of Giordano Bruno, which, however, he seems not to have known historically) brings the monadic nearer to the atomistic doctrine. But his teaching is essentially distinguished from atomism by the doctrine, which he maintains, of a dynamic occupation of space by the force of repulsion (which may decrease, in passing from its centre, in proportion to the cube of the distance) and the force of attraction (which decreases in proportion to the square of the distance); there, where the effects of both are equal, is the limit of the body in which they inhere. *Quodlibet corporis elementum simplex s. monas non solum est in spatio, sed et implet spatium, salva nihilo minus ipsius simplicitate. Monas spatiolum præsentiæ suæ definit non pluralitate partium suarum substantialium, sed sphæra activitatis, qua externas utrinque sibi præsentes arcet ab ulteriori ad se invicem appropinquatione. Adest alia pariter insita attractionis vis cum impenetrabilitate conjunctim limitem definiens extensionis.* Kant concludes from these premises, among other things, that the elements of material bodies, as such, are perfectly elastic, since any more powerful force, which may be opposed to the force of repulsion, although it may and must limit the effects of the latter, can never neutralize or destroy them. Kant's argument that the force of attraction on every point must diminish in proportion as the spherical surface, over which it is extended, is removed from the centre and consequently enlarged, belongs originally to Newton's contemporary, Halley, who lived from 1636 to 1724. Whether Kant received it directly or indirectly from him, or discovered it anew himself, is uncertain.

Von den Ursachen der Erderschütterungen bei Gelegenheit des Unglücks, welches die westl. Länder von Europa gegen das Ende des vorigen Jahres (1755) *betroffen hat*, in the *Königsb. Nachrichten*, 1756. *Geschichte und Naturbeschreibung des Erdbebens im Jahr* 1755, Königsberg, 1756. [*History and Physiography of the most Remarkable Cases of the Earthquake which towards the end of* 1755 *shook a Great Part of the Earth*, translated in K.'s *Essays and Treatises*, II. (3), London, 1798; see above, p. 133.—*Tr.*]

Betrachtung der seit einiger Zeit wahrgenommenen Erderschütterungen, in the *Königsb. Nachrichten*, 1756, Nrs. 15 und 16. Short compositions, relating to questions in natural science, and nearly related to the "*Allg. Naturgesch. u. Theorie des Himmels.*" (The reports, on which Kant relied in writing of the earthquake at Lisbon in 1755, are held by Otto Volger, in his "*Untersuchungen über die Phänomene der Erdbeben in der Schweiz;* Gotha, 1857–58, to be very inexact. Compare, however, Reuschle, in the Review already cited, pp. 66 seq.)

Neue Anmerkungen zur Erläuterung der Theorie der Winde, Königsb., 1756, Kant's "programme" for his lectures in the summer of 1756. In this composition [on the Theory of Winds] Kant independently propounded the correct theory of periodical winds. (Of the fact that Hadley had partially preceded him in his theory, Kant appears to have known nothing. Hadley explains, however, only the winds of the Tropics, while Kant includes in his explanation the westerly winds outside the Tropics, which he attributes to the descent of the upper current from the equator toward the Poles. Cf. Dove's *Meteorolog. Untersuchungen*, and, with special reference to Kant, Reuschle, p. 68 seq.). Kant thus laid the true foundation for the explanation of numerous meteorological phenomena. At the end of this "programme" Kant says that he intends, in his exposition of natural science, to follow Eberhard's hand-book: "First Principles of Natural Science," to furnish instruction in mathematics, to commence the system of philosophy with an elucidation of Meyer's doctrine of reason, and to expound metaphysics following Baumgarten's hand-book, which he terms "the most useful and thorough of all works of its kind," and whose "obscurity" he hopes to remove "by the carefulness of his presentation and by full explanations of the text."

Entwurf und Ankündigung eines Collegii über die physische Geographie nebst Betrachtung über die Frage, ob die Westwinde in unseren Gegenden darum feucht sind, weil sie über ein grosses Meer streichen (published,—according to Hartenstein, 1st ed., Vol. IX., Pref., p. vii.,—in 1757, and not first in 1765). A continuation of the investigations of the years 1755 and 1756. The question respecting the westerly winds [whether they are moist in the region of Königsberg, from having passed over a large sea] is answered in the negative; but the complete, positive solution of the phenomenon is not given, because the influence of temperature on the capacity of the air for vapor is not taken into consideration.

Neuer Lehrbegriff der Bewegung und Ruhe [on Motion and Rest], Königsberg, 1758. Kant shows the relativity of all motion, explains by it the equality of action and reaction in the case of colliding bodies, and gives the true interpretation of phenomena commonly ascribed to a "*vis inertiæ.*"

Versuch einiger Betrachtungen über den Optimismus, Königsberg, 1759. Kant approves here of the doctrine of optimism, being convinced that God cannot but choose what is best; he holds that the existing universe is the best possible one, and that all its parts are good in view of the whole. His later critical philosophy denied the legitimacy of this kind of argumentation, and emphasized rather the personal freedom of the individual than the unity of the whole to which he belongs.

Gedanken bei dem Ableben des Stud. von Funk, Trostschreiben an seine Mutter, Königsberg, 1760. A pamphlet *in memoriam.*

Die falsche Spitzfindigkeit der vier syllogistischen Figuren, Königsberg, 1762. [Translated in *Essays and Treatises*, I. (3), see above, p. 138. *Tr.*] Kant admits only the first syllogistic figure as natural. (Cf. my refutation in my Syst. of Logic ad § 103.)

Versuch, den Begriff der negativen Grössen in die Weltweisheit einzuführen, Königsberg, 1763. Of opposites, the one denies what the other posits. Opposition is either

logical or real. The former is contradiction, and consists in at once affirming and denying something of the same thing; its result is the *nihil negativum irrepræsentabile.* Real opposition exists where two predicates of a thing are opposed, but not as contradictories; both predicates, though really repugnant to each other, are affirmative, but in opposite senses, like one motion and an equally rapid motion in an exactly opposite direction, or like an active obligation and an equal passive obligation; its result is the *nihil privativum repræsentabile*, which Kant would term zero; it is to this real opposition that the mathematical signs + and − refer. All positive and negative real principles of the world are together equal to zero. (Already, in the *Princ. Cogn. Met. Dilucidatio*, Kant had censured the argumentation of Daries for the logical principle of contradiction, in which the latter made use of the mathematical formula: $+A-A=0$, affirming that this interpretation of the sign minus was arbitrary and involved a *petitio principii;* but in the present opuscule he marks the difference more precisely.) With the distinction of logical and real opposition corresponds that of the logical and the real ground; whatever follows from the former, being contained in it as a part of its conception, follows by the rule of identity; not so in the case of the real ground, whose consequence is something other than itself and new. How causality in this latter sense is possible, Kant confesses that he does not understand. (Kant continued firm in the conviction that causality could not be accounted for by the principle of identity and contradiction. At this stage in his philosophical career he derived the notion of causal relations from experience, but in his later, or Critical period, he made of it a primitive conception of the understanding.)

Der einzig mögliche Beweisgrund zu einer Demonstration des Daseins Gottes, Königsberg, 1763. [Translated in *Essays and Treatises*, II. (7), see above, p. 139. *Tr.*] Kant expresses already in this work the belief that "Providence has not willed that those convictions which are most necessary for our happiness should be at the mercy of subtle and finely-spun reasonings, but has delivered them directly to the natural, vulgar understanding;" "it is altogether necessary that we should be convinced of God's existence, but not so necessary that we should be able to demonstrate it." None the less does Kant here hold it possible to arrive at a proof of the existence of God, "by venturing on the dark ocean of metaphysics," whereas subsequently he undertook to demonstrate the impossibility of any theoretical proof of God's existence. Already in this work he lays down the doctrine, that existence is no predicate or specific attribute of anything; through the fact of existence things do not receive another predicate in addition to those predicates which they have without existence, as things simply possible. In the conception of any logical subject, none but predicates of possibility are ever found. The existence of a thing is the absolute positing of the thing, and is thereby distinguished from all predicates, which as such are never posited otherwise than relatively to some thing. If I say, God is almighty, it is only of the logical relation between God and omnipotence that I think, the latter being one of the marks of the former. It is impossible that nothing should exist; for then the material and the data for all that is possible would be removed, and hence all possibility would be negatived; but that by which all possibility is destroyed is absolutely impossible. (This argument is a paralogism; the assertion of the absence of all possibility of existence is, indeed, identical with the assertion of the impossibility of existence, but not with the assertion of the impossibility of the supposed absence of all possibility.) Hence there exists something in an absolutely necessary manner. Necessary being is one, because it contains the ultimate real ground or reason of all other possible being; hence every other thing must depend upon it. It is simple, not compounded of numerous substances; it

is unchangeable and eternal, and contains the highest reality; it is spiritual, because the attributes of understanding and will belong to the highest reality; therefore there is a God. Kant affirms that this argumentation, since it postulates empirically no form of existence and is derived from the nature of absolute necessity alone, is a wholly *a priori* proof; in this manner, he says, the existence of God is known from that which really constitutes the absolute necessity of God, and hence by a truly genetic deduction; all other proofs, even though they possessed the binding character which they lack, could never make clear the nature of that necessity. Kant rejects the (Anselmic and) Cartesian form of the ontological argument, which concludes from the pre-supposed idea of God to God's existence. Kant subjoins an (excellently reasoned) *Meditation*, in which the unity perceptible in the natures of things is made the premise from which God's existence is inferred *a posteriori*, and, in particular, develops farther the physico-theological principle which underlies his "General History of Nature and Theory of the Heavens."

Untersuchung über die Deutlichkeit der Grundsätze der natürlichen Theologie und Moral, zur Beantwortung der Frage, welche die K. Academie der Wiss. zu Berlin auf das Jahr 1763 *aufgegeben hat.* [Translated in *Essays and Treatises*, I. (8), see above, p. 138. *Tr.*] This essay of Kant's received the second prize, and Mendelssohn's ("*Ueber die Evidenz in den metaphysischen Wissenschaften*") the first. Both were printed together (Berlin, 1764). Kant sets out with a comparison of philosophical and mathematical knowledge. Mathematics arrives at all its definitions synthetically, philosophy analytically. Mathematics considers the general as represented by signs *in concreto*, philosophy by means of signs *in abstracto*. In mathematics there are only a few indecomposable ideas and indemonstrable principles; in philosophy these are innumerable. The object of mathematics is easy and simple, that of philosophy difficult and complicated. "Metaphysics is without doubt the most difficult of all human sciences; but no metaphysics has ever yet been written." The only method for attaining to the greatest possible certainty in metaphysics is identical with that which Newton introduced into physical science; it consists in the analysis of experience, the explanation of phenomena by the rules which such analysis discovers, and the employment, so far as possible, of the aid of mathematics.

Raisonnement über den Abenteurer Jan Komarnicki (in the *Königsb. Zeitung*, 1764). Jan Komarnicki was the so-called "goat-prophet," who wandered from place to place accompanied by a boy eight years old. Kant saw in the "little savage," whose robustness and ingenuousness pleased him, an interesting example of the child of nature as depicted by Rousseau.

Beobachtungen über das Gefühl des Schönen und Erhabenen, Königsberg, 1764. [Translated in *Essays and Treatises*, II. (1), see above, p. 138. *Tr.*] A series of the most acute observations upon æsthetics, morals, and psychology. A characteristic feature in the work is the æsthetic founding of morals on the "feeling of the beauty and dignity of human nature."

Nachricht von der Einrichtung seiner Vorlesungen über die Philosophie zur Ankündigung derselben im Wintersemester 1765–66. Königsberg, 1765. Lectures, says Kant, should teach, not thoughts, but how to think; the object of the student should not be to learn philosophy, but how to philosophize. A finished philosophy does not exist; the method of philosophical instruction must be an investigating ("zetetic") method.

Ueber Swedenborg, a letter to Fräulein von Knobloch, dated August 10, 1763—not 1758, as given by Borowski, nor, as others pretend, 1768: the year 1763 is shown with

certainty to be the correct date by a comparison of the historical data, since the fire at Stockholm occurred July 19th, 1759, the Dutch ambassador Louis de Marteville (not Harteville) died on the 25th of April, 1760, and General St. Germain entered the Danish service in Dec., 1760, and commanded the army, which (not in 1757, but) in 1762 the Danish officer joined, who is mentioned by Kant. With this date agrees also the fact that the marriage of the person addressed in the letter, Charlotte Amalie von Knobloch (born Aug. 10, 1740), with Captain Friedrich von Klingsporn took place on the 22d of July, 1764 (the fruit of which marriage was Carl Friedrich Hans von Kl., born June 1st, 1765); see *Fortgesetzte neue geneal.-hist. Nachr.*, Part 37, Leips., 1765, p. 384. *Versuch über die Krankheiten des Kopfes*, in the *Königsberger Zeitung*, 1764. *Träume eines Geistersehers, erläutert durch Träume der Metaphysik*, Riga, 1766 (anonymously). Works half serious and half sportive, in which Kant advances more and more towards a skeptical attitude. The possibility of many favorite metaphysical theories is, he admits, indisputable; but he affirms that this advantage is shared by them with numerous illusions of the demented; many a speculation meets with approval, only because the scales of the understanding are not altogether equally weighted, one of them, which bears the inscription, "Hope of the Future," enjoying a mechanical advantage—a vice, which Kant himself confesses his impotence and indisposition to remove. For the rest, Kant regards it as more consonant to human nature and to purity of morals to found the expectation of another life on the natural sentiment of a well-conditioned soul, than, conversely, to make the moral character of the latter dependent on the hope of the former. Cf. Matter, *Swedenborg*, Paris, 1863; Theod. Weber, *Kant's Dualismus von Geist und Natur aus dem Jahre* 1766 *und der des posit. Christenthums*, Breslau, 1866; W. White, *Em. Swedenborg, his Life and Writings*, 2 vols., London, 1867. [See also an article on *Kant and Swedenborg*, in Macmillan's Magazine, Vol. 10, pp. 74 seq.—Tr.]

Vom ersten Grunde des Unterschiedes der Gegenden im Raume, in the *Königsb. Nachrichten*, 1768. From the circumstance that figures like *e. g.* those of the right and left hands are perfectly equal and similar to each other, and yet cannot be enclosed in the same limits (*e. g.*, the right-hand glove will not fit the left hand), Kant believes himself authorized to infer that the form of a material object does not depend solely on the position of its parts relatively to each other, but also on a relation of the same to universal, absolute space; hence space is defined as not consisting merely in the external relation of co-existing portions of matter, but as a primitive entity, and not merely in thought. But Kant finds this conception surrounded with unresolved difficulties, and these difficulties led him not long afterwards to declare space a mere form of human intuition, and thus to take the first step towards the Critical Philosophy.

II. Works belonging to the period of the Critical Philosophy.

De mundi sensibilis atque intelligibilis forma et principiis, dissertatio pro loco professionis logicæ et metaph. ordin. rite sibi vindicando, Königsberg, 1770. The fundamental conception underlying the Critique of the Pure Reason becomes here already manifest in regard to space and time, but not yet in regard to substantiality, causality, and the other categories. To these latter Kant first extended that conception in the following years. The period from 1769 to 1781 can more justly, than the preceding one, be called the period of seeking after an altogether new system. Further, we may call attention here to the Scholion to § 22, in which is manifest an inclination—that seems as if repressed by the consciousness of the duty of scientific clearness and rigor—towards mystical, theosophic conceptions (the fruit of the Leibnitzian doctrine). Space is here defined as the divine omnipresence assuming the form of a phenomenon, and time as

the eternity of the universal cause under the same form. (*Si pedem aliquantulum ultra terminos certitudinis apodictica, quæ Metaphysicam decet, promovere fas esset, operæ pretium videtur, quædam, quæ pertinent ad intuitus sensitivi non solum leges, sed etiam causas per intellectum tantum cognoscendas indagare. Nempe mens humana non afficitur ab externis mundusque ipsius aspectui non potet in infinitum nisi quatenus ipsa cum omnibus aliis sustentatur ab eadem vi infinita Unius. Hinc non sentit externa nisi per præsentiam ejusdem causæ sustentatricis communis, ideoque spatium, quod est conditio universalis et necessaria compræsentiæ omnium sensitive cognita, dici potest omnipræsentia phænomenon. Causa enim universi non est omnibus atque singulis propterea præsens, quia est in ipsorum locis, sed sunt loca, h. e. relationes substantiarum possibiles, quia omnibus intime præsens est*). But Kant adds that "it seems more prudent to cast along the shore of that world of knowledge which the infirmity of our intellects allows us to enter, than to venture upon the deep waters of these mystical inquiries, as Malebranche did, whose doctrine differs but slightly from that here expounded, the doctrine, namely, that we see all things in God." In the Critique of the Pure Reason Kant no longer attempts to conceive the intuitions of space and time as phenomenal correlates of the divine omnipresence and eternity, but considers them as absolutely and only subjective forms; he was forced to this step, because in the same work he treated the ideas of relation, the "*commercium*" of substances and the idea of substance as merely subjective, and consequently could no longer find in them (with Leibnitz) an objective basis for the subjective intuition of space, nor in the "eternity of the universal cause" the objective basis of the subjective intuition of time, especially since now the absolute was viewed by him as, least of all things, scientifically knowable.

Recension der Schrift von Moscati über den Unterschied der Structur der Thiere und Menschen, reprinted from the *Königsb. gelehrte u. polit. Zeitung*, 1771, in Reicke's *Kantiana*, pp. 66–68. Kant approves Moscati's anatomical demonstration of the doctrine, that the animal nature of man was originally constituted with a view to quadrupedal motion.

Von den verschiedenen Racen der Menschen, on the occasion of the announcement of his lectures for the Summer Semester of 1775. All men belong to one natural genus; the races are the most firmly established varieties. A noticeable utterance of Kant's, in this opuscule, is, that a real natural history will probably reduce a great number of apparently different species to races of one and the same genus, and transform the present diffuse scholastic system of natural history into a physical system addressed to the understanding. We must strive, says Kant, to obtain a historical knowledge of nature; by this means we may expect to advance by degrees from opinion to insight. In the Critique of the teleological faculty of judgment Kant subsequently developed this idea anew.

Articles on the "*Philanthropin*" at Dessau, in the *Königsb. gel. u. pol. Ztg.*, 1776–1778. Of these three articles there is sufficient evidence only in regard to the first, and probably also the second, that they were written by Kant. The authorship of the third, which is more moderate, and also more common in thought and expression, is at least doubtful; it appears to have been written by Crichton, the court preacher, in consequence of a request addressed to him by Kant, July 29, 1778 (in R. and Schubert's edition, Vol. XI., p. 72). Kant expresses in these articles a lively interest in the method of education which is employed in the Philanthropin, and which is "wisely drawn from nature herself."

Kritik der reinen Vernunft, Riga, 1781. [*Critique of Pure Reason*, translations by Haywood and by Meiklejohn, s. above, p. 139, and below *ad* § 122.—*Tr.*] In this work (according to his statement in a letter to Moses Mendelssohn, dated Aug. 18, 1783) Kant embodied the result of at least twelve years of reflection, but its composition "was effected within four or five months, the greatest attention being paid to the substance, but less regard being had for the form and for the interests of readers who would understand it easily." The second revised edition was published *ibid.*, 1787; the subsequent editions, up to the seventh (Leips., 1828), are copies of the second, without alteration. In both of the complete editions of the works, the differences between the two editions are all given; but Rosenkranz adopts the first edition for the text, and gives in an appendix the alterations made in the second, while Hartenstein, in both of his editions, gives the second edition as text, embodying the different readings of the first edition in foot-notes. This difference of arrangement is the consequence of differing judgments as to the value of the two editions. Rosenkranz prefers the first, believing, with Michelet, Schopenhauer, and others, that the second contains alterations of the thought, by which prejudice is done to the logical sequence of ideas; but Hartenstein, in agreement with Kant's own statement (in the preface to the second ed.), sees in these alterations only changes of form, serving to prevent the renewal of misunderstandings which had arisen, and to facilitate the comprehension of the work. Perhaps the best arrangement would be to place the portions which differ side by side in two parallel columns. Cf. my *Diss. de priore et posteriore forma Kantiana Criticæ rationis puræ* (Berl., 1862), in which I attempt to show in detail the correctness of Kant's own judgment; in the second edition of the Critique of the Pure Reason, as also in the previous "*Prolegomena*" of 1783, Kant gives greater prominence to the realistic side of his system, a side belonging to it from the beginning, and which he had also made distinct enough for the attentive reader, but which had been mistaken by hasty readers; injustice is done to Kant by those who perceive in this an essential changing of the thought, but who affirm either that Kant himself did not perceive it, or even (as Schopenhauer pretends) that he hypocritically denied it. Michelet's rejoinder (in his journal, *Der Gedanke*, III., 1862, pp. 237–243) is defective from its Hegelianizing misinterpretation of the Kantian conception of the things in themselves, which affect us and thereby call forth in us ideas; he interprets Kant as meaning by this the unity of essence in the variety of phenomena (cf. below *ad* § 122). Of the contents of the *Critique of the Pure Reason*, as also of the other principal works of Kant, an account will be given in the following exposition of the Kantian system, rather than in this preliminary review.

Prolegomena zu einer jeden künftigen Metaphysik, die als Wissenschaft wird auftreten können, Riga, 1783. [*Prolegomena to Future Metaphysics*, translated by John Richardson, in Kant's *Metaphysical Works*, London, 1836.—*Tr.*] The principal contents of this work were subsequently incorporated by Kant into the second edition of the *Critique of the Pure Reason*. In reply to a review in the *Gött. gel. Anz.* of Jan. 19, 1782—written by Garve, but mutilated before publication by Feder (subsequently published elsewhere in its original form), and in which the realistic element in Kant's doctrine had been overlooked and his doctrine too nearly identified with Berkeley's idealism—Kant brings the realistic element, which in the first ed. of the *Critique* had rather been presupposed as something universally recognized than made the subject of special remark, into strong relief. In the preface Kant relates how he had first been awakened from his "dogmatic slumber" by Hume's doubts with reference to the idea of causation; the spark, thrown out by the skeptic, had kindled the critical light.

Ueber Schulz's (preacher at Gielsdorf) *Versuch einer Anleitung zur Sittenlehre für alle*

Menschen ohne Unterschied der Religion, in the "*Raisonnirendes Bücherverzeichniss*," Königsberg, 1783, No. 7. Kant takes exception, from his critical stand-point, to a psychology and an ethics aiming at a consistent development of the Leibnitzian principles of the gradations of existences and of determinism; for Kant, determinism is now identical with fatalism, and instead of a place in the scale of natural being, he now claims for man a freedom which "places him completely outside of the chain of natural causes." (On the subsequent removal of Schulz, who was a man full of character, from his charge, by an arbitrary act of the Wöllner-Ministry, compare Volkmar, *Religionsprocess des Predigers Schulz zu Gidsdorf, eines Lichtfreundes des* 18. *Jahrhunderts*, Leips., 1845.)

Ideen zu einer allgemeinen Geschichte in weltbürgerlicher Absicht, in the *Berliner Monatsschrift*, November, 1784. *Was heisst Aufklärung? ibid.*, December, 1784. [Translated in *Essays and Treatises*, I. (10) and (1), see above, p. 138.—*Tr.*] Kant's answer to this question is, that "enlightenment" means issuing from the period of self-inflicted minority.

Recension von Herder's Ideen zur Philosophie der Geschichte der Menschheit, in the (Jena) *Allg. Littztg.*, 1785. Writing from the stand-point of Criticism, Kant, who separates sharply from each other nature and freedom, here condemns speculations resting on the hypothesis of the essential unity of those elements; Kant's criticism of Herder is, in a certain sense, at the same time a reaction of his later against his earlier stand-point.

Ueber die Vulcane im Monde, *Berl. Monatsschr.*, March, 1785. [In *Essays and Treatises*, II. (4), see above, p. 139.—*Tr.*]

Von der Unrechtmässigkeit des Büchernachdrucks, *ib.*, May, 1785. [In *Essays and Treatises*, I. (5), see p. 138.—*Tr.*]

Ueber die Bestimmung des Begriffs von einer Menschenrace, *ib.*, Nov., 1785.

Grundlegung zur Metaphysik der Sitten, Riga, 1785, etc. [*Essays and Treatises*, I. (2), see p. 138.—*Tr.*]

Metaphysische Anfangsgründe der Naturwissenschaft, Riga, 1786, etc.

Muthmasslicher Anfang der Menschengeschichte, *Berl. Monatsschr.*, Jan., 1786. [*Essays and Treatises*, I. (7), see p. 138.—*Tr.*] *Ueber* (*Gottl.*) *Hufeland's Grundsatz des Naturrechts*, *Allg. Littztg.*, 1786. *Was heisst sich im Denken orientiren? Berl. M.*, Oct., 1786. [In *Essays and Treatises*, I. (9), see p. 138.—*Tr.*] (Kant's answer to this question is: To be guided in one's beliefs—in view of the insufficiency of the objective principles of reason—by a subjective principle of reason; we err only when we confound both, and consequently take spiritual need for insight.) *Einige Bemerkungen zu Jacob's "Prüfung der Mendelssohn'schen Morgenstunden"* (inserted in Jacob's work, after the preface).

Ueber den Gebrauch teleologischer Principien in der Philosophie, in Wieland's *Deutsch. Mercur*, January, 1788.

Kritik der praktischen Vernunft, Riga, 1788; 6th ed., Leips., 1827.

Kritik der Urtheilskraft, Berlin and Libau, 1790, etc.

Ueber eine Entdeckung (Eberhard's), *nach der alle neue Kritik der Vernunft durch eine ältere entbehrlich gemacht werden soll*, Königsberg, 1790. *Ueber Schwärmerei und Mittel dagegen*, in Borowski's book on Cagliostro, Königsberg, 1790.

Ueber das Misslingen aller philosophischen Versuche in der Theodicee, *Berl. Monatsschr* Septemb., 1791. [*Essays and Treatises*, II. (6), see p. 139.—*Tr.*]

Ueber die von der K. Akademie der Wissenschaften zu Berlin für das Jahr 1791 *ausgesetzte Preisaufgabe: welches sind die wirklichen Fortschritte, die die Metaphysik seit Leibnitz's und Wolff's Zeiten gemacht hat?* ed. by F. Th. Rink, Königsberg, 1804. Kant seeks here, without treating especially of the works of others, to show the importance of the progress from the Leibnitzo-Wolffian dogmatism to Criticism. The work was not sent in to compete for the prize.

Die Religion innerhalb der Grenzen der blossen Vernunft, Königsberg, 1793; 2d ed., *ibid.*, 1794. [*Essays and Treatises*, II. (8), see p. 139.—*Tr.*] The first section of this work, "On Radical Evil," was first published in the April number of the "*Berlin. Monatsschrift*" for 1792.

Ueber den Gemeinspruch: das mag in der Theorie richtig sein, passt aber nicht für die Praxis, *Berl. Monatsschr.*, Sept., 1793. [*Essays and Treatises*, I. (4), see p. 138.—*Tr.*] This maxim ["That may be true in theory, but will not do in practice"], in so far as it is applied to moral or legal obligations, is condemned by Kant as pernicious for morality in individual intercourse, as also for the ends of civil and international law.

Ueber Philosophie überhaupt, in Beck's *Auszug aus Kant's kritischen Schriften*, Riga, 1793–94.

Etwas über den Einfluss des Mondes auf die Witterung, *Berl. Monatsschr.*, May, 1794.

Das Ende aller Dinge, *ib.*, 1794. [*Essays and Treatises*, II. (2) and (9), see pp. 138, 9.—*Tr.*]

Zum ewigen Frieden, ein philosophischer Entwurf, Königsberg, 1795; 2d ed., *ib.*, 1796. [*Essays and Treatises*, I. (6), see p. 138.—*Tr.*]

Zu Sömmering, über das Organ der Seele, Königsberg, 1796. Kant expresses the conjecture, that the water in the cavities of the brain may be the agent for transmitting affections from one brain-fibre to another.

Von einem neuerdings erhobenen vornehmen Tone in der Philosophie, *Berl. Monatsschr.*, May, 1796. [*Essays and Treatises*, II. (5), see p. 139.—*Tr.*] (Against Platonizing sentimental philosophers.) *Ausgleichung eines auf Misverstand beruhenden mathematischen Streits*, *ib.*, Oct., 1796. (A few words in explanation of an expression employed by Kant, which, taken literally, was inappropriate; he desires the same to be understood in its right sense from its connection.) *Verkündigung des nahen Abschlusses eines Tractates zu ewigen Frieden in der Philosophie*, *Berl. Monatsschr.*, Dec., 1796. (Against Joh. Georg Schlosser.)

Metaphysische Anfangsgründe der [illegible]*lehre*, Königsberg, 1797; 2d ed., 1798. *Metaphysische Anfangsgründe der Tugendlehre*, Königsberg, 1797; 2d ed., 1803. These two works bear in common the title: *Metaphysik der Sitten* (Parts I. and II.).

Ueber ein vermeintes Recht, aus Menschenliebe zu lügen, *Berl. Blätter*, 1797.

Der Streit der Facultäten, containing also the essay: *Von der Macht des Gemüthes, durch den blossen Vorsatz seiner krankhaften Gefühle Meister zu werden*, Königsberg, 1798.

Anthropologie in pragmatischer Hinsicht, Königsberg, 1798.

Vorrede zu Jachmann's Prüfung der Kantischen Religionsphilosophie in Hinsicht auf die ihr beigelegte Aehnlichkeit mit dem reinen Mysticismus, Königsberg, 1800. *Nachschrift eines Freundes zu Heilsberg's Vorrede zu Midke's littauischem Wörterbuch*, Königsberg, 1800.

Kant's Logik, edited by J. B. Jäsche, Königsberg, 1800. [Transl. by J. Richardson, see above, p. 139.—*Tr.*]

Kant's physische Geographie, ed. by Rink, Königsberg, 1802–1803. (Cf. on this work Reuschle, in the article above cited, pp. 62–65.)

Kant über Pädagogik, ed. by Rink, Königsberg, 1803.

The complete editions of Kant's works contain, further, letters, explanations, and other minor written deliverances of Kant. With Kant's co-operation, his "*Vermischte*

Schriften" were published by Tieftrunk, in 3 vols., Halle, 1799, and several minor works, by Rink, Königsberg, 1800. A manuscript on the *Metaphysics of Nature*, on which Kant labored in the last years of his life, has never been published; see (Ginscher?) in the *Preuss. Jahrbücher*, ed. by Haym, I., 1858, pp. 80–84, Schubert, in the *N. preuss. Provincialblatt*, Königsb., 1858, pp. 58–61, and particularly Rudolf Reicke, in the *Altpreuss. Monatsschr.*, Vol. I., Königsberg, 1864, pp. 742–749.

Kant's critical writings were translated into Latin by F. G. Born, 4 vols., Leipsic, 1796–98; other translations are cited by Tennemann, in his *Grundriss der Gesch. der Philos.*, 5th ed., Leips., 1829, *ad* § 388, p. 486 seq., and in Vol. XI. of the edition of Rosenkranz and Schubert, p. 217 seq., and by others. An account of French translations is given by J. B. Meyer, in Fichte's *Zeitschr.*, XXIX., Halle, 1856, p. 129 seq. Of English translations we may here mention, in addition to those cited in the following paragraph, J. W. Semple's translation of the *Grundlegung zur Metaph. der Sitten*, together with extracts from others of Kant's ethical works (Edinburgh, 1836), of which a new edition has recently been published, bearing the title: "*The Metaphysics of Ethics*," with an Introduction by H. Calderwood (but without Semple's introduction and supplement), Edinburgh, 1869.

§ 122. By the critique of the reason Kant understands the examination of the origin, extent, and limits of human knowledge. Pure reason is his name for reason independent of all experience. The "*Critique of the Pure Reason*" subjects the pure speculative reason to a critical scrutiny. Kant holds that this scrutiny must precede all other philosophical procedures. Kant terms every philosophy, which transcends the sphere of experience without having previously justified this act by an examination of the faculty of knowledge, a form of "Dogmatism;" the philosophical limitation of knowledge to experience he calls "Empiricism;" philosophical doubt as to all knowledge transcending experience, in so far as this doubt is grounded on the insufficiency of all existing attempts at demonstration, and not on an examination of the human faculty of knowledge in general, is termed by him "Skepticism," and his own philosophy, which makes all further philosophizing dependent on the result of such an examination, "Criticism." Criticism is "transcendental philosophy" or "transcendental idealism," in so far as it inquires into and then denies the possibility of a transcendent knowledge, *i. e.*, of knowledge respecting what lies beyond the range of experience.

Kant sets out in his critique of the reason with a twofold division of judgments (in particular, of categorical judgments). With reference to the relation of the predicate to the subject, he divides them into analytical or elucidating judgments—where the predicate can be found in the conception of the subject by simple analysis of the latter or is identical with it (in which latter case the analytical judgment is

an identical one)—and synthetic or amplificative judgments—where the predicate is not contained in the concept of the subject, but is added to it. The principle of analytical judgments is the principle of identity and contradiction; a synthetic judgment, on the contrary, cannot be formed from the conception of its subject on the basis of this principle alone. Kant further discriminates, with reference to their origin as parts of human knowledge, between judgments *à priori* and judgments *à posteriori;* by the latter he understands judgments of experience, but by judgments *à priori*, in the absolute sense, those which are completely independent of all experience, and in the relative sense, those which are based indirectly on experience, or in which the conceptions employed, though not derived immediately from experience, are deduced from others that were so derived. As absolute judgments *à priori* Kant regards all those which have the marks of necessity and strict universality, assuming (what he does not prove, but simply posits as self-evident, although his whole system depends upon it) that necessity and strict universality are derivable from no combination of experiences, but only independently of all experience. All analytical judgments are judgments *à priori;* for although the subject-conception may have been obtained through experience, yet to its analysis, from which the judgment results, no further experience is necessary. Synthetic judgments, on the contrary, fall into two classes. If the synthesis of the predicate with the subject is effected by the aid of experience, the judgment is synthetic *à posteriori;* if it is effected apart from all experience, it is synthetic *à priori*. Kant holds the existence of judgments of the latter class to be undeniable; for among the judgments which are recognized as strictly universal and apodictical, and which are consequently, according to Kant's assumption, judgments *à priori*, he finds judgments which must at the same time be admitted to be synthetic. Among these belong, first of all, most mathematical judgments. Some of the fundamental judgments of arithmetic (*e. g.*, a=a) are, indeed, according to Kant, of an analytical nature; but the rest of them, together with all geometrical judgments, are, in his view, synthetic, and, since they have the marks of strict universality and necessity, are synthetic judgments *à priori*. The same character pertains, according to Kant, to the most general propositions of physics, such as, for example, that in all the changes of the material world the quantity of matter remains unchanged. These propositions are known to be true apart from all experience,

since they are universal and apodictical judgments; and yet they are not obtained through a mere analysis of the conceptions of their subjects, for the predicate adds something to those conceptions. In like manner, finally, are all metaphysical principles, at least in their tendency, synthetic judgments *à priori*, *e. g.*, the principle, that every event must have a cause. And if the principles of metaphysics are not altogether incontrovertible, yet those of mathematics at least are established beyond all dispute. There exist, therefore, concludes Kant, synthetic judgments *à priori* or judgments of the pure reason. The fundamental question of his Critique becomes, then: How are synthetic judgments *à priori* possible?

The answer given is: Synthetic judgments *a priori* are possible, because man brings to the material of knowledge, which he acquires empirically in virtue of his receptivity, certain pure forms of knowledge, which he himself creates in virtue of his spontaneity and independently of all experience and into which he fits all given material. These forms, which are the conditions of the possibility of all experience, are at the same time the conditions of the possibility of the objects of experience, because whatever is to be an object for me, must take on the forms through which the *Ego*, my original consciousness, or the "transcendental unity of apperception," shapes all that is presented to it; they have, therefore, objective validity in a synthetic judgment *à priori*. But the objects, with reference to which they possess this validity, are not the things-in-themselves or transcendental objects, *i. e.*, objects as they are in themselves, apart from our mode of conceiving them; they are only the empirical objects or the phenomena which exist in our consciousness in the form of mental representations. The things-in-themselves are unknowable for man. Only a creative, divine mind, that gives them reality at the same time that it thinks them, can have power truly to know them. Things-in-themselves do not conform themselves to the forms of human knowledge, because the human consciousness is not creative, because human perception is not free from subjective elements, is not "intellectual intuition." Nor do the forms of human knowledge conform themselves to things-in-themselves; otherwise, all our knowledge would be empirical and without necessity and strict universality. But all empirical objects, since they are only representations in our minds, do conform themselves to the forms of human knowledge. Hence we can know empirical objects or phenomena, but only these. All valid *à priori* knowledge has

respect only to phenomena, hence to objects of real or possible experience.

The forms of knowledge are forms either of intuition or of thought. The "*Transcendental Æsthetic*" treats of the former, the "*Transcendental Logic*" of the latter.

The forms of intuition are space and time. Space is the form of external sensibility; time is the form of internal and indirectly of external sensibility. On the *à priori* nature of space depends the possibility of geometrical, and on the *à priori* nature of time depends the possibility of arithmetical judgments. Things-in-themselves or transcendental objects are related neither to space nor to time; all co-existence and succession are only in phenomenal objects, and consequently only in the perceiving Subject.

The forms of thought are the twelve categories or original conceptions of the understanding, on which all the forms of our judgments are conditioned. They are: unity, plurality, totality,—reality, negation, limitation,—substantiality, causality, reciprocal action,—possibility, existence, necessity. On their *à priori* nature depends the validity of the most general judgments, which lie at the foundation of all empirical knowledge. The things-in-themselves or transcendental objects have neither unity nor plurality; they are not substances, nor are they subject to the causal relation, or to any of the categories; the categories are applicable only to the phenomenal objects which are in our consciousness.

The reason strives to rise above and beyond the sphere of the understanding, which is confined to the finite and conditioned, to the unconditioned. It forms the idea of the soul, as a substance which ever endures; of the world, as an unlimited causal series; and of God, as the absolute substance and union of all perfections, or as the "most perfect being." Since these ideas relate to objects which lie beyond the range of all possible experience, they have no theoretic validity; if the latter is claimed for them (in dogmatic metaphysics), this is simply the result of a misleading logic founded on appearances, or of dialectic. The psychological paralogism confounds the unity of the I—which can never be conceived as a predicate, but only and always as a subject—with the simplicity and absolute permanence of a psychical substance. Cosmology leads to antinomies, whose mutually contradictory members are each equally susceptible of indirect demonstration, if the reality of space, time, and the categories be presupposed, but

which, with the refutation of this supposition, cease to exist. Rational theology, in seeking by the ontological, cosmological, and physico-theological arguments to prove the existence of God, becomes involved in a series of sophistications. Still, these ideas of the reason are in two respects of value: (1) theoretically, when viewed not as constitutive principles, through which a real knowledge of things-in-themselves can be obtained, but as regulative principles, which affirm that, however far empirical investigation may at any time have advanced, the sphere of objects of possible experience can never be regarded as fully exhausted, but that there will always be room for further investigation; (2) practically, in so far as they render conceivable suppositions, to which the practical reason conducts with moral necessity.

In the "*Metaphysical Principles of Physics*" Kant seeks, by reducing matter to forces, to justify a dynamical explanation of nature.

On Kant's philosophy in general and, in particular, on his theoretical philosophy there exist numberless works by Kantians, semi-Kantians, and anti-Kantians, the most important of which will be mentioned below; compare in regard to them especially the History of Kantism, by Rosenkranz, subjoined as Vol. XII. to his complete edition of Kant's works. Of the relatively recent writers on the subject, we may name, in addition to the authors of general histories of philosophy, and, especially, of histories of modern philosophy (Hegel, Michelet, Erdmann, Kuno Fischer, I. Herm. Fichte, Chalybäus, Ulrici, Biedermann, G. Weigelt, Barchou de Penhoën, A. Ott, Willm, and others, see above, pp. 137) the following: Charles Villers (*Philosophie de Kant*, Metz, 1801), Tissot, the translator of the Critique of Pure Reason (*Critique de la Raison Pure*, 3 *éd. en français*, Paris, 1864), Amand Saintes (*Histoire de la Vie et de la Philosophie de Kant*, Paris and Hamburg, 1844), Barni (who has translated and annotated several of Kant's works), Victor Cousin (*Leçons sur la philosophie de Kant*, delivered in 1820, Par., 1842, 4th ed., Par., 1864), E. Maurial (*Le Scepticisme combattu dans ses principes, analyse et discussion des principes du scepticisme de Kant*, 1857), Emile Saisset (*Le Scepticisme, Ænésidème, Pascal, Kant*, Paris, 1865, 2d ed., *ibid.*, 1867), Pasquale Galuppi (*Saggio filosofico sulla critica della connoscenza*, Naples, 1819), F. A. Nitsch (*View of Kant's Principles*, London, 1796), A. F. M. Willich (*Elements of the Critical Philosophy*, London, 1798), Meiklejohn (*Critique of Pure Reason, translated from the German of Imm. Kant*, London, 1855), and further, among others, Th. A. Suabedissen (*Resultate der philos. Forschungen über die Natur der menschlichen Erkenntniss von Plato bis Kant*, Marburg, 1805), Ed. Beneke, (*Kant und die philos. Aufgabe unserer Zeit*, Berlin, 1832), Mirbt (*Kant und seine Nachfolger*, Jena, 1841), J. C. Glaser (*De principiis philosophiæ Kantianæ, diss. inaug.*, Halle, 1844), Chr. H. Weisse (*In welchem Sinne die deutsche Philosophie jetzt wieder an Kant sich zu orientiren hat*, Leipsic, 1847), O. Ule (*Ueber den Raum und die Raumtheorie des Arist. und Kant*, Halle, 1850), Julius Rupp (*Imm. Kant, über den Charakter seiner Philosophie und das Verhältniss derselben zur Gegenwart*, Königsberg, 1857), Joh. Jacoby (*Kant und Lessing, Rede zu Kant's Geburtstagsfeier*, Königsberg, 1859), Theod. Sträter (*De principiis philos. K., diss. inaug.*, Bonn, 1859), J. B. Meyer (*Ueber den Kriticismus mit besonderer Rücksicht auf Kant*, in the *Zeitschr. f. Ph.*, Vol. 37, 1860, pp. 226–263, and Vol. 39, 1861, pp. 46–66), L. Noack (*I. Kant's Auferstehung aus dem Grabe, seine Lehre urkundlich dargestellt*, Leipsic, 1861; *Kant mit oder ohne romantischen Kopf*, in Vol. II. of Oppenheim's *Deutsch. Jahrb. für Pol. u. Litt.*, 1862), the anonymous work entitled *Ein Ergebniss aus der Kritik der Kantischen Freiheitslehre* (by the author of *Das unbewusste Geistesleben und die göttliche Offenbarung*, Leipsic, 1861), Michelis (*Die Philos. Kant's und ihr Einfluss auf die Entwicklung der neueren Naturwissenschaft* in "*Natur und Offenbarung*," Vol. VIII., Münster, 1862), K. F. E. Trahndorf (*Aristoteles und Kant, oder: was ist die Vernunft?* in the *Zeitschr. für die luth. Theol. u. Kirche*, 1863, pp. 92–125), Joh. Huber (*Lessing und Kant im Verhältniss zur relig. Bewegung des achtzehnten Jahrhunderts*, in the *Deutsche Vierteljahrsschrift*, 1864, pp. 241–295), Theod. Merz (*Ueber die Bedeutung der Kantischen Philos. für die Gegenwart*, in the *Protest. Monatsbl.*, ed. by H. Gelzer, Vol. 24, No. 6, Dec., 1864, pp. 375–388), O. Liebmann (*Kant und die Epigonen*, Stuttg., 1865), Ed. Röder (*Das Wort à priori, eine neue Kritik der Kantischen Philosophie*, Frankf.-on-the-M., 1866), Trendelenburg (*Ueber eine Lücke in Kant's Beweis von der ausschliessenden Subjectivität des Raumes und der Zeit, ein kritisches und antikritisches Blatt*, in *Hist. Beitr. z. Philos.*, III., pp. 215–276, *Kuno Fischer und sein Kant, eine Entgegnung*. Leipsic, 1869), W. Pflüger (*Ueber Kant's transcendentale Æsthetik*, Inaugural Dissertation, Marburg, 1867), Siegmund Levy (*Kant's Krit. d. r. Vern. in ihrem Verhältniss zur Kritik der Sprache*, Dissertation, Bonn, 1868), Gustav Knauer (*Conträr und Contradictorisch, nebst convergirenden Lehrstücken, festgestellt, und Kant's Kategorientafel berichtigt*, Halle, 1868), G. Thiele (*Wie sind synthet. Urtheile der Mathematik à priori möglich?* Inaug. Dissert., Halle, 1869), F. Ueberweg (*Der Grundgedanke des Kantischen Kriticismus nach seiner Entstehungszeit und seinem wissenschaftlichen Werth*, in the *Altpreuss. Monatsschrift*, VI., 1869, pp. 215–224), Aug. Müller (*Die Grundlagen der Kantischen Philosophie, vom naturwiss. Standpunkte gesehen, ibid.*, pp. 358–421), W. Bolton (*Examination of the Principles of Kant and Hamilton*, London, 1869), J. B. Meyer (*Kant's Psychologie*, Berlin, 1870). Some other works, concerning more special problems, will be mentioned below in the course of the exposition. [A. E. Kroeger, *K.'s Syst. of Transcendentalism*, in *J. of Spec. Ph.*, 1869.—*Tr.*]

By the "dogmatism of metaphysics," as whose most important exponent he mentions Wolff, Kant understands the universal confidence of metaphysics in its principles, independently of any previous critique of the rational faculty itself, merely on account of its success in the employment of those principles (Kant *vs.* Eberhard, *Ueber eine Entdeckung*, etc., Ros. and Schubert's ed. of Kant's Works, I., p. 452), or the dogmatic procedure of the reason (arguing rigidly from philosophical conceptions) without previous critique of its own power (Pref. to 2d orig. ed. of the *Cr. of Pure R.*, p. xxxv). By skepticism, as maintained especially by David Hume, Kant understands a general mistrust of the pure reason, without previous critique of the same, merely on account of the contradictory nature of its assertions (*ib.*, I. p. 452). Kant holds that from the empirical stand-point the existence of God and the immortality of the soul cannot be proved, since both lie completely beyond the range of experience, and sees in Locke's attempt to prove them an inconsequence (*Cr. of the Pure R.*, Ros. and Schu., pp. 127 and 822 seq.), so that to him skepticism appears as the necessary result of empiricism. The pure reason, in its dogmatic use, must appear before the critical eye of a higher and judicial reason (*ib.* p. 767); the *critique of the pure reason* is the true tribunal for all controversies of the reason (p. 779); to proceed critically in dealing with everything which pertains to metaphysics, is the maxim of a universal mistrust of all synthetic propositions of metaphysics, so long as a universal ground of their possibility in the essential conditions of our cognitive faculties has not been made patent (*vs.* Eberhard, I. p. 452). Kant defines the critique of the pure reason as meaning an examination of the rational faculty in general, in respect of all the directions, in which it may strive to attain to knowledge independently of experience; it is therefore that which decides whether any metaphysics whatever is possible, and determines not only the extent and limits, but also the sources of the same, but all on the basis of principles (Pref. to 1st ed. of the *Crit. of Pure R.*). Reason is, according to Kant, the faculty which contains the principles of knowledge *à priori*, and pure reason the faculty of principles, by which knowledge absolutely *à priori* is evolved. The critique of the pure reason, which passes judgment on the sources and limits of the latter, is the pre-condition of a system of the pure reason or of all pure *à priori* knowledge.*

Against the critique of the pure reason, as undertaken by Kant, it has been objected that thought can only be scrutinized by thought, and that to seek to examine the nature of thought antecedently to all real thinking, is therefore to attempt to think before thinking, or like attempting to learn to swim without going into the water

* The Aristotelian and Wolffian theory of the faculties of the soul was simply adopted in its fundamental features by Kant, and in certain particulars modified, but not made the subject of a radical critique. How unfortunate this was for his critique of the conditions of knowledge, Herbart, in particular, has pointed out.

(Hegel). But this objection is refuted by the distinction between pre-critical and critico-philosophic thinking. The former must undoubtedly precede the critique of the reason, but must finally be subjected to an examination, which is to it what optics is to seeing. But after that through critical reflection the origin and extent of knowledge, and the measure and kind of its validity have been ascertained, it is then possible for philosophic thought on this basis to make further advances. (Cf. my *Syst. of Logic*, § 31, and Kuno Fischer's work, cited above.)

Kant traces the genesis of his critique of the reason to the stimulus which he received from Hume. He says (in the Introduction to the *Prolegomena*), that after Locke's and Leibnitz's essays on the human understanding, nay, more, since the first rise of metaphysics, nothing more important had appeared in this field of inquiry than the skepticism of Hume. Hume "brought no light into this species of knowledge, but he struck, nevertheless, a spark from which a light might well have been kindled, if it had fallen on susceptible tinder." "I confess freely that it was the exception taken by David Hume" (to the conception of causality), "which many years ago first interrupted my dogmatic slumber, and gave to my inquiries in the field of speculative philosophy an altogether new direction. I tried first whether Hume's objections might not be generalized, and soon found that the conception of the connection of cause and effect was far from being the only one through which the understanding conceives *à priori* connections among things, but rather that metaphysics was filled only with the like conceptions. I sought to assure myself of their number, and having succeeded according to my wish, namely, on the basis of a single principle, I proceeded to the deduction of these conceptions, of which I was now assured, that they were not, as Hume had apprehended, of empirical derivation, but that they originated in the pure understanding."

Kant applies the epithet *transcendental* not to all knowledge *à priori*, but only to the knowledge that and how certain notions (intuitions or conceptions) are applied solely *à priori* or are possible. In distinction from transcendental knowledge, Kant calls that a transcendent use of conceptions, which goes beyond all possible experience. The critique of the reason, which is itself transcendental, demonstrates the illegitimacy of all transcendent employment of the reason.

The order of the investigation in the "*Critique of the Pure Reason*" is as follows: In the Introduction Kant seeks to demonstrate the actual existence of knowledge bearing the character peculiar to what he terms "synthetic judgments *à priori*," and raises the question, how these judgments are possible. He finds that their possibility depends on certain purely subjective forms of intuition, viz.: space and time, and on like forms of the understanding, which he terms categories; out of the latter grow up the ideas of the reason. Kant divides the whole complex of his investigations into the Transcendental Elementary Doctrine and the Transcendental Doctrine of Method (following the division of formal logic customary in his time). The Transcendental Elementary Doctrine treats of the materials, and the Transcendental Doctrine of Method of the plan or formal conditions of a complete system of the cognitions of the pure speculative reason. The Transcendental Elementary Doctrine is divided into Transcendental Æsthetic and Logic, the former treating of the pure intuitions of sense, space and time, and the latter of the pure cognitions of the understanding. The part of the Transcendental Logic, which sets forth the elements of the pure knowledge of the understanding and the principles without which no object whatever can be thought, is the Transcendental Analytic, and at the same time a Logic of Truth. The second part of the Transcendental Logic is the Transcendental Dialectic, *i. e.*, the critique of the

understanding and the reason in respect of their hyper-physical use, a critique of the false dialectical semblance which arises when the pure cognitions of the understanding and reason are applied, not solely to the objects of experience, but there, where no object is given, beyond the limits of experience, and when, therefore, a material use is made of the merely formal principles of the pure understanding. The Transcendental Doctrine of Method contains four chapters, bearing the titles: The Discipline of the Pure Reason, its Canon, its Architectonic, and its History. (The Tr. Æsthetic relates especially to the possibility of mathematics, the Analytic to that of Physics, the Dialectic to that of all metaphysics, and the Doctrine of Method to that of metaphysics as a science.)

All our knowledge, says Kant in the Introduction, begins with experience, but not all knowledge springs from experience. Experience is a continuous combination (synthesis) of perceptions. Experience is the first product which the understanding brings forth, after it has gone to work upon the raw material of sensations. But now Kant asserts (affirming in regard to all logical combinations of experiences what is true only of isolated experiences and of the most elementary form of induction, "*per enumerationem simplicem*"): "Experience tells us, indeed, what is, but not that it must necessarily be so and not otherwise; hence she gives us no true universality;" necessity and strict (not merely "comparative") universality are for Kant the sure signs of non-empirical cognition.* Knowledge not originating in experience is defined by Kant as "*à priori* knowledge."† Kant distinguishes as follows: "It may be customary to say of much of our knowledge, derived from experimental sources, that we are capable of acquiring it or that we possess it *à priori*, because we derive it not immediately from experience, but from a universal rule, which itself, nevertheless, we have borrowed from experience; but in what follows we shall understand by cognitions *à priori* those which take place independently, not of this or that, but of all experience whatever; opposed to them are empirical cognitions, or such as are possible only *à posteriori*, *i. e.*; through experience; of *à priori* cognitions those are called pure with which no empirical elements whatever are mixed."‡

* In these pre-suppositions, which Kant never questioned, although he never subjected them to a critical examination, is contained the πρῶτον ψεῦδος, from which, with great (although not absolute) consistency the whole system of "Criticism" grew up. The principle of gravitation, which is strictly universal in its truth, and yet, as Kant admits, is derived from experience, is alone enough to refute him. The simpler the subject of a science, so much the more certain is the universal validity of its inductively-acquired principles, so that from arithmetic (quantity) to geometry (quantity, together with motion and form), mechanics (quantity, form and motion, and gravity), etc., a *gradation* in the measure of certainty and not, as Kant affirms, an *absolute* difference between universality (here strict, there merely "comparative"), subsists. The empirical basis of Geometry is admitted by mathematicians of such weight as Riemann and Helmholtz. Says the former (B. Riemann, *Ueber die Hypothesen, welche der Geometrie zu Grunde liegen*, in the Transactions of the Royal Scientific Association of Göttingen, 1867, p. 2; also printed separately;—written in 1854): "The qualities by which space is distinguished from other conceivable magnitudes of three dimensions, can only be learned from experience." (For the views of Helmholtz, see his essay on the "Facts which lie at the Basis of Geometry," in the *Nachrichten der Kgl. Ges. der Wiss. zu Göttingen*, June 3, 1868, pp. 193–221. Cf. the Supplement to the 3d edition of my *System d. Logik*, Bonn, 1868, p. 427.) Whatever is strictly demonstrated is apodictically certain; such, therefore, is the following of a proposition in demonstration from its premises; but to term axioms "apodictically certain" is a misuse of the words.

† "A priori knowledge" means, in the sense usual since the time of Aristotle, "knowledge of effects from their real causes," and this kind of knowledge possesses, undoubtedly, the attributes of necessity or apodictical truth; Kant adopts the expression for his extravagant conception of a knowledge, whose certainty is independent of all experience, and claims for this knowledge likewise, or rather exclusively, the attribute of apodicticity.

‡ But herewith the point of view of the Aristotelian division—according to which, by *à priori* knowledge, knowledge of effects from their causes was understood, and the reverse by knowledge *à posteriori*—is

With the division of cognitions into *à priori* and empirical cognitions, Kant joins the second division of them into analytical and synthetic. By analytical judgments he understands those in which the predicate B belongs to the subject A, as something which was already contained, but not previously observed, in this concept A; as, for example, in the judgment: all bodies (extended, impenetrable substances) are extended. But by synthetic judgments he understands those in which the predicate B lies without the subject-concept A, although connected with it; as, for example, in the judgment: all bodies (extended, impenetrable substances) are heavy. In analytical judgments the connection of the predicate with the subject is conceived by the aid of the notion of identity, but in synthetic judgments, without the aid of that notion; the former are based on the principle of contradiction, but for the latter another principle is necessary.*

By analytical judgments our knowledge is not augmented; only a conception, which we already possessed, is decomposed into its parts. But in the case of synthetic judgments I must have, in addition to the conception of the subject, something else, = x, on which the understanding may rest, in order to recognize a predicate, which is not contained in that conception, as yet belonging to it. In the case of empirical judgments, or judgments of experience, all of which are, as such, synthetic, this necessity occasions no difficulty; for this x is my full experience of the object, which I think through the concept A, which concept covers only a part of this experience. But

exchanged for another. This Aristotelian usage was preserved by Leibnitz, who says in an *Epist. ad J. Thomasium*, 1669 (*Opera Philos.*, ed. Erdm., p. 51): *Constructiones figurarum sunt motus; jam ex constructionibus affectiones de figuris demonstrantur, ergo ex motu et per consequens à priori et ex causa*, and still later identifies *connaître à priori* with *connaître par les causes*, and only occasionally employs instead the phraseology "*par des démonstrations*," referring, doubtless, especially to demonstrations from the real cause; cf. the passages cited in my Log., 3d ed., § 73, p. 176 seq. Leaving out the last-mentioned qualification (*ex causa*), Wolff, less exactly, identifies *eruere veritatem à priori* with *elicere nondum cognita ex aliis cognitis ratiocinando*, and consequently *eruere veritatem à posteriori* with *solo sensu*. In this he was followed by Baumgarten, and the latter by Kant, who adds, however, the further distinction of the absolute and the relative *à-priori*, which is completely heterogeneous to the original use of the expression. Knowledge *à priori*, in the Aristotelian sense, is not knowledge proximately independent of experience, to which another species of knowledge, independent of all experience, could be related as pure to impure; it is based, rather, on the greatest and most complete variety of logically elaborated experiences, and is only independent of experience in respect of the contents of the logical conclusion. So, *e. g.*, the calculation in advance of any astronomical phenomenon is, indeed, independent of our experience of this phenomenon itself, but yet depends, partly on numerous other data empirically established, partly on the Newtonian principle of gravitation, which lies at the bottom of the calculation, and which, as Kant admits, was drawn from the experience of the fall of bodies and of the revolutions of the moon and planets. A judgment independent of all experience would, if such a judgment were possible, possess, not the highest degree of certainty, but no certainty at all, and would be a mere prejudice. Apart from all experience we can have no knowledge whatever, much less, what Kant pretends, apodictical knowledge. Just as machines, with which we surpass the results of mere manual labor, are not made without hands by magic, but only through the use of the hands, so the demonstrative reasoning, by which we go beyond the results of isolated experience and arrive at a knowledge of the necessary, is not effected independently of all experience through subjective forms of incomprehensible origin, but only by the logical combination of experiences according to the inductive and deductive methods on the basis of the order immanent in things themselves.

* This use of the terms analytical and synthetic is rightly discriminated by Kant himself from the common usage, which denominates analytical the method proceeding through the analysis of the data given to the cognition of conditions and ultimately of principles, and synthetic the method proceeding by deduction from principles to the knowledge of the conditioned: Kant prefers to call these methods, respectively, regressive and progressive. The Kantian conception of the analytical judgment is an amplification of the conception of the identical judgment; in the latter the whole subject-concept, in the former either the whole or some one element of it constitutes the predicate. Still the phraseology rather than the idea is new; earlier logicians had distinguished between partially identical and absolutely identical judgments.

for synthetic judgments *à priori* this resort is altogether wanting. What is the x, on which the understanding rests for its authority, when it believes itself to have found, outside of the conception A, a predicate foreign to the same and yet connected (and that, too, necessarily) with it? In other words: *How are synthetic judgments à priori possible?* This is the fundamental question for the critique of the pure reason (of the reason independent of experience).

Kant believes himself able to point out three kinds of synthetic judgments *à priori* as actually existing, namely, mathematical, physical, and metaphysical. Mathematics and physics contain undisputed examples of universal and apodictical knowledge; the affirmations of metaphysics are disputed, in so far as it is a question whether any metaphysics is possible; but in their tendency all properly metaphysical propositions are also synthetic judgments *à priori*.

Mathematical judgments, says Kant, are all synthetic (although Kant admits that a few mathematical axioms, such as a = a, a+b > a, are really analytical affirmations, asserting, however, that they serve only as links in the chain of method, not as principles). One would, says Kant, indeed at first think the proposition, 7+5=12, to be merely analytical, following, according to the principle of contradiction, from the conception of a sum of 7 and 5. But this conception contains no intimation as to what the particular number is, in which the two numbers mentioned are resumed. Something in addition to these conceptions is necessary, and we must call to our aid some image which corresponds with one of them, say of one's five fingers or of five points, and so add one after the other the five unities given in this image to the conception of seven.*

No more, says Kant, are any of the principles of pure geometry analytical. That the straight line is the shortest one between two points, is a synthetic proposition; for my conception of straightness contains nothing respecting length, but only a quality; the aid of intuition † must be called in, through which alone the synthesis is possible.‡

Physics, says Kant further, also contains synthetic judgments *à priori; e. g.*, in all changes of the material world the quantity of matter remains unchanged; in all com-

* But in fact this didactic expedient is no scientific necessity; it is sufficient for the case in hand, that we go back to the definitions: two is the sum of one and one, three the sum of two and one, etc., and to the definition of the decadal system, and to the principle, which is derived from the conception of a sum (as the whole number, making abstraction of the question of order), viz.: that the order, in which the constituent parts of the sum are taken, is indifferent for the sum. We find given in actual experience similar objects, which can be included under the same conception and hence numbered; from the fundamental conceptions of arithmetic follow then the fundamental principles of arithmetic, as analytical judgments, and from these the rest follow syllogistically.

† [*Anschauung*—external or internal preception, or its product, incomplex representation, *repræsentatio aut notio singularis.—Tr.*]

‡ Unquestionably the affirmations of geometry are synthetic. But the fundamental principles of geometry, *e. g.*, that space has three dimensions, that there is only one straight line between two points, have assertorical, not apodictical certainty; the geometrician is aware of the three dimensions of space only as facts and is unable to give any reason why space must have exactly three and not two or four dimensions; but this assertorical truth is obtained by abstraction, induction, and other logical operations, founded on numerous experiences of spatial relations. The *order* of figures in space, which attains to expression in the fundamental principles of geometry, and which may be reduced philosophically to the principle of the non-dependence of form on magnitude, confirms the truth of these principles, but is itself grounded in the objective nature of space itself; nothing proves its merely subjective character. From the fundamental affirmations of geometry the others follow syllogistically; the latter are apodictically, and not merely empirically, certain, in so far as they are demonstrated from the former and not founded on direct experience; in this sense, but only in this, is geometry an apodictical and, according to the Aristotelian, but by no means according to the Kantian, use of this expression, an *à priori* science.

munication of motion action and reaction must always be equal to each other; further, the law of inertia, etc.*

In Metaphysics—adds Kant—although this may be regarded as a science hitherto merely attempted, yet rendered indispensable by the nature of human reason, synthetic cognitions *à priori* are claimed to be contained; *e. g.*, the world must have had a beginning, and whatever is substantial in things is permanent. Metaphysics is, or at least is designed to be, a science made up of purely synthetic propositions *à priori*. Hence the question: How is metaphysics (naturally—*i. e.*, with reference to the nature of human reason—and scientifically) possible?

In the Transcendental Æsthetic, the science of the *à priori* principles of sensibility, Kant seeks to demonstrate the *à priori* character of space and time. In a "Metaphysical Exposition of this Conception" designed to present the considerations which show the conception of space to be given *à priori*, Kant advances four theses: 1. Space is not an empirical conception that has been abstracted from external experience; for all concrete localization depends on our previous possession of the notion of space.† 2. Space is a necessary *à priori* notion, lying at the basis of all external perceptions; for it is impossible by any means to form a notion of the non-existence of space.‡ 3. Space is not a discursive or general conception of relations of things generally, but a pure intuition; for we can imagine space only as one, of which all so-called spaces are parts.§ 4. Our notion of space is that of an infinite, given magnitude; but a conception containing *in itself* an infinite number of ideas (representations) is impossible to thought; hence the primitive notion of space is an *à priori* intuition and not a conception.‖

In the "Transcendental Exposition of the Conception of Space"—by which Kant understands the explanation of that conception as a principle, by means of which the possibility of other synthetic cognitions *à priori* is made intelligible—Kant develops the assertion, that the notion of space must be an *à priori* intuition, if it is to be possible for geometry to determine the attributes of space synthetically and yet *à priori*.¶

* But the history of physical science shows that these general principles, to which the law of the conservation of force, and others, may be added, were late abstractions from scientifically elaborated experiences, and were by no means fixed as scientific truths *à priori*, prior to all experience or independent of all experience; only in so far as there becomes subsequently manifest in them a certain order, which seems to render them susceptible of a philosophical derivation from principles still more general—such, *e. g.*, as the relativity of space—do they acquire an (in the Aristotelian, but not, again, in the Kantian sense) *à priori* character.

† This is reasoning in a circle.

‡ This, however, does not prove the subjectivity and *à priori* character of space.

§ In view of this it is remarkable that Kant should yet style space, in the heading of the chapter, a "conception." In the use of scientific terms, Kant is often not sufficiently exact.

‖ The assertion that no conception can contain an infinite number of partitive representations is an arbitrary one, so far as it relates to representations that may be potentially contained in the conception. But actually our idea of space does not contain an infinity of differentiated parts, and actually, too, the space, of which we have an idea, does not extend *in infinitum*, but only, at the farthest, to the concave limits of the visible heavens. The infinity of extension exists only in the reflection, that however far we may have gone in thought it is always possible to go further, and that, therefore, no limit is absolutely impassable; but from this it by no means follows that space is a merely subjective intuition.

¶ Kant has as little shown how from the supposed *à priori* nature of the intuition of space the certainty of the fundamental principles of geometry follows, as he has shown, on the other hand, that this certainty cannot follow from an intuition of space resting on an objective and empirical basis. Further, Kant has not sufficiently justified the double use which he makes of space, time, and the categories, in that he treats them, on the one hand, as *mere forms* or ways of connecting the material given in experience, and yet undeniably, on the other hand, also treats them as something *material*, viz.: as the matter or content of thought from which we form synthetic judgments *à priori*.

Space, then, is viewed by Kant as an *à priori* intuition, found in us antecedently to all perception of external objects and as the formal quality of the mind, in virtue of which we are affected by objects, or as the form of external sensation in general.*

Space is, according to Kant, not a form of the existence of objects in themselves. Since we cannot make of the special conditions of sensibility conditions of the possibility of things, but only of their manifestations, we can doubtless say that space includes all things which may appear to us externally, but not all things-in-themselves, whether these be sensibly perceived or not, or by whatever Subject they may be perceived. Only from the point of view of human beings can we speak of space, extended beings, etc. If we make abstraction of the subjective condition, under which alone external intuition is possible for us, *i. e.*, under which alone we can be affected by external objects, the idea of space has absolutely no signification. This predicate is only in so far attributed to things as they appear to us, *i. e.*, are objects of the sensibility. Space is real, *i. e.*, is an objectively valid conception in respect of everything which can be presented to us as an object of external perception, but it is ideal in respect of things, when they are considered by the reason, as they are in themselves, and without reference to the sensible nature of man.

By an altogether analogous metaphysical and transcendental exposition of the conception of Time, Kant seeks also to demonstrate its empirical reality and transcendental ideality. Time is no more than space a something subsisting for itself or so inherent as an objective qualification or order in things, that, if abstraction were made of all subjective conditions of perception, time would remain. Time is nothing else than the form of the internal sense, *i. e.*, of our intuition or perception of ourselves and of our internal state; it determines the relation of the various ideas which make up our internal state. But since all ideas, even such as represent external objects, belong, in themselves, as modifications of consciousness to our internal state, of which time is the formal condition, it follows that time is also indirectly a formal condition *à priori* of external phenomena. Time is in itself, out of the conscious subject, nothing; it cannot be reckoned among objects-in-themselves, apart from its relation to our sensible intuitions, either as subsisting or as inhering. Time possesses subjective reality in respect of internal experience. But if I myself or any other being could regard me without this condition of sensibility, the same modifications of consciousness which we now conceive as changes would found a cognition, in which the idea of time and consequently that of change would not at all be included. To the objection that the reality of the change in our ideas proves the reality of time, Kant replies that the objects of the "internal sense," like those of the external sense, are only phenomena, having two aspects, the one regarding the object-in-itself, the other the form of our intuition (perception) of the object, which form must not be sought in the object-in-itself, but in the Subject, to which it appears.†

* That space is only the form of the *external* and not of the *internal* sense, and that time, *per contra*, is the form of the internal, and, indirectly, also of the external sense, are truths inferrible, in Kant's opinion, from the nature of external and internal experience. But in fact the relation to space belongs no less to the "phenomena of the internal sense," to the images of perception as such, to the representations of memory, to conceptions, in so far as the concrete representations from which they are abstracted constitute their inseparable basis, and therefore to the judgments combined from them, in so far as that, to which the judgment relates, is also intuitively (through the sensibility) represented, etc. Even the psychical processes take place in a space (in the *Thalamus opticus* as the *sensorium commune?*), which, to be sure, as the space of consciousness is to be discriminated from the space of external objects; of the extension in space which belongs to these processes, we are literally conscious as extension.

† This distinction would avail nothing, even though an "internal sense" of the kind which Kant supposes really existed, since, in the case of psychological self-observation, the Subject, to whom the internal

Kant pronounces false the doctrine of the Leibnitzo-Wolffian philosophy, that our sensibility is but the *confused* representation of things, and of that which belongs to things in themselves. He denies that man possesses a faculty of "intellectual intuition," whereby, without the intervention of affections from without or from within, and apart from forms merely subjective (space and time), objects are known as they are in themselves.

The result of the Transcendental Æsthetic is summed up by Kant (in the "General Observations on the Transcendental Æsthetic," 1st ed., p. 42; 2d ed., p. 59, *ap.* Ros., II., 49) as follows: "That the things which we perceive are not what we take them to be, nor their relations of such intrinsic nature as they appear to us to be; and that if we make abstraction of ourselves as knowing *Subjects*, or even only of the subjective constitution of our senses generally, all the qualities, all the relations of objects in space and time, yes, and even space and time themselves, disappear, and that as phenomena they cannot exist really *per se*, but only in us; what may be the character of things in themselves, and wholly separated from our receptive sensibility, remains wholly unknown to us." In what we call external objects, Kant sees only mental representations resulting from the nature of our sensibility.

Similar is the result to which Kant arrives in reference to the forms of the understanding, in the Transcendental Logic.

The receptivity of the mind, in virtue of which it has representations whenever it is affected in any manner, is Sensibility; spontaneity of cognition, on the contrary, in the absolute origination of ideas, is the mark of the understanding. Thoughts without internal or external perceptions are meaningless, but such perceptions without conceptions are blind. The understanding can perceive nothing, and the senses can think nothing All perceptions depend on organic affections, and all conceptions on functions; "function" expresses the unity of the action by which different representations are arranged under one common representation. By means of these functions the understanding forms judgments, which are indirect cognitions of the objects of perception. On the various primal conceptions of the understanding, or Categories, depend the various forms of logical judgments, and, conversely from the latter, as set forth in general (formal) logic, the categories may be ascertained by regressive inference. (Cf. A. F. C. Kersten, *Quo jure Kantius Arist. categ. rejecerit*, Progr. of the *Cöln. Real-Gymn.*, Berl., 1853; Lud. Gerkrath, *De Kantii categ. doctrina*, *Diss. Inaug.*, Bonn, 1854.) Kant defines the categories as conceptions of objects as such, by which the perception of these objects is regarded as determined with regard to some one of the functions of the logical judgment (as, *e. g.*, body is determined by the category of substantiality as the subject in the judgment: all bodies are divisible). Kant presents the following table of the forms of the logical judgment,* and of the corresponding categories †:—

states appear, is identical with the Object to which they belong. The phenomenal succession of our ideas cannot be regarded as merely an unfaithful image of internal states, in themselves timeless, but which affect the internal sense; on the contrary, it must also be regarded as having acquired the nature of a real result, through the affection produced in the soul or in the I, and as belonging to the sphere of things existent, as such, and not merely to the Phenomenal. Besides, this doctrine of the "internal sense" is incorrect; see my System of Logic, § 40.

* The threefold division of forms of judgments, aimed at by Kant in each class, is not justified throughout; see my *System of Logic*, §§ 68–70.

† The Categories of Relation, as they are termed by Kant, are the only ones which respect the form of the "object" or of objective reality, and as such, at the same time, give rise to certain functions of the logical judgment. The differences of Quality and Modality are founded, not on differing forms of objective existence,

Logical Table of Judgments.

Judgments are in regard to

Quantity.	*Quality.*	*Relation.*	*Modality.*
Singular.	Affirmative.	Categorical.	Problematical.
Particular (or plural).	Negative.	Hypothetical.	Assertory.
Universal.	Infinite (or limiting).	Disjunctive.	Apodictical.

Transcendental Table of Conceptions of the Understanding.

These conceptions are, under the head of

Quantity.	*Quality.*	*Relation.*	*Modality.*
Unity.	Reality.	Substantiality and Inherence.	Possibility and Impossibility.
Plurality.	Negation.	Causality and Dependence.	Existence and Non-existence.
Totality.	Limitation.	Community or Reciprocity (Concurrence).	Necessity and Contingence.

Herewith belongs a table of synthetic judgments *à priori*, founded on the above conceptions of the understanding. Kant designates it as a

Pure Physiological Table of Universal Principles of Physics.

Axioms of (sensible) Intuition.	Anticipations of Perception.	Analogies of Experience.	Postulates of all empirical thought.

A complete system of transcendental philosophy, says Kant, would necessarily contain the conceptions of the understanding which are derived from the pure primal conceptions, and are therefore themselves likewise *à priori* or pure conceptions, as, *e. g.*, force, action, passion, which follow from the conception of causality; to make out the list of them were a useful and not disagreeable, though here a superfluous task (whence it follows that Kant believed himself already to have given the most essential elements of a complete transcendental philosophy in the *Critique of the Pure Reason*).

Kant observes in regard to these categories, among other things, that there are three of them in each class, whereas generally all *à priori* division with conceptions must be dichotomous (*e. g.*, A and non-A), and adds that the third category in each

which are reflected in the subjective act of judgment, but on various kinds in the relation of the subjective to the objective, *i. e.*, of the combination of ideas in the judgment to that portion of reality which is the object of representation; they have not, therefore, different categories underlying them. Logical Quantity, again, is founded only on the possibility of combining in one judgment several judgments, whose subjects are included in the same conception, so that the predicate is affirmed (or denied) with reference either to the whole sphere of that conception or to a part of it; it involves no relation to a form of objective reality, peculiar to the judgment as such. Cf. my *Syst. of Logic*, §§ 68–70.

class comes from the combination of the second with the first. (In the *Critique of the Faculty of Judgment*, Intr., last note, Kant terms the dichotomous division here mentioned an analytical division *à priori*, founded on the principle of contradiction, but says that every synthetic division *à priori*, not based, as in mathematics, on the intuition which corresponds with the conception, but on *à priori* conceptions, must contain three things: 1, a condition; 2, something conditioned; 3, the conception which arises from the union of the conditioned with its condition.) Totality, he says further, is plurality viewed as unity; limitation is reality combined with negation; community is reciprocal causality among substances; necessity is the existence which is given through possibility itself. But the combining of the first and second category in each class requires a special act of the understanding, whence the third conception must likewise be regarded as an original conception of the understanding. (In this remark of Kant is contained the germ of the Fichtean and Hegelian dialectic.)

The objective validity of the categories (of which Kant treats in the "Transcendental Deduction of the Categories") rests on the fact, that it is only through them that experience, in what concerns the form of thought, is possible. They relate necessarily and *à priori* to objects of experience, because it is only by means of them that any object of experience whatever can be thought.

There are, says Kant, only two cases possible in which synthetic representation and its objects can coincide, can bear a necessary relation to each other and, as it were, meet each other, viz.: when either the object alone renders the representation possible or the representation the object.

In the first case the relation is empirical, and the representation can therefore not be evolved *à priori*. Our *à priori* ideas are not copied from objects, since otherwise they would be empirical and not *à priori*. Only that in phenomena which belongs to sensation (that which Kant terms the *matter* of sensible cognition, *Cr. of the Pure R.*, 1st ed. [in the original], pp. 20 and 50; 2d ed., pp. 34 and 74) is copied from objects, though not perfectly agreeing with them. The things-in-themselves or transcendental objects affect our senses (*ib.*, 1st ed., p. 190; 2d ed., p. 235; *Proleg.*, § 33); through this affection arises the sensation of color, or of smell, etc., which sensations are yet not to be supposed similar to that unknown element in the things-in-themselves which excites them in us. But space, time, substantiality, causality, etc., depend, according to Kant, not on such affection. Otherwise all these forms would be empirical and without necessity. They pertain exclusively to the subject, which by them shapes its sensations and so generates the phenomena, which are its ideas. They do not come from the things-in-themselves.

The other case cannot occur in this sense, that our ideas cause the existence of their objects. The will does indeed affect causally the existence of objects, but not so do our ideas. But it is quite possible that the cognition of an object, or that the phenomenon should take its law from our *à priori* ideas. Kant compares this latter supposition to the astronomical theory of Copernicus, which explains the apparent revolution of the heavens by the hypothesis of a real motion of the earth, giving rise to the appearance in question.

But the field or whole sum of objects of possible experiences is found in our perceptions. An *à priori* conception, unrelated to perceptions, would be nothing more than the logical form of a conception, but not the conception itself, through which a thing is thought. Pure *à priori* conceptions can indeed contain nothing empirical, but they must nevertheless, if they are to possess objective validity, be purely *à priori* conditions of possible experience.

The receptivity of the mind is insufficient, except as combined with spontaneity, to render cognition possible. Spontaneity is the ground of a threefold synthesis, viz.: that of the apprehension of representations in perception, that of the reproduction of the same in imagination, and that of the recognition of them in the conception (*Cr. of the P. R.*, 1st ed., p. 97 seq.).

"The successive apprehension of the manifold elements given in perception and the combination of them into one whole is the Synthesis of Apprehension. Without this we could not have the ideas of time and space. The Reproductive Synthesis of the Imagination is likewise based on *à priori* principles (*Cr. of the P. R.*, 1st ed., p. 100 seq.; on pp. 117 seq. and 123, and on p. 152 of the 2d ed., Kant discriminates more definitely from the reproductive imagination, which depends on conditions of experience, a productive imagination, which constitutes an *à priori* condition of the combination of the manifold in a cognition; in the 2d ed., p. 152, Kant says that the former is of no service in explaining the possibility of *à priori* cognition and belongs, not to the subjects of transcendental philosophy, but to those of psychology, whence in the 2d ed. he treats no farther of it, nor of "Recognition of ideas in the Conception"). If, in the synthesis of the parts of a line, of a division of time, of a number, I were constantly to lose the earlier parts out of thought and not reproduce them while proceeding to the following ones, it would never be possible for me to have a complete idea, or even the purest and most primary fundamental ideas of space and time. But without the consciousness that that, which we think, is just the same as that which we thought an instant before, all reproduction in the series of ideas would be fruitless. The concept is that which unites the manifold elements, successively perceived and then reproduced, in one idea.

In the cognition of the manifold the mind becomes conscious of the identity of the function, by which it performs the necessary synthesis. All combination and all unity in knowledge presuppose that unity of consciousness, which precedes all the data of perceptions, and in connection with which alone any representation of objects is possible. To this pure, original, unchangeable self-consciousness Kant gives the name of *transcendental apperception*. He distinguishes it from empirical apperception, or the mutable empirical self-consciousness which subsists amid the succession of internal phenomena apprehended by the internal sense. Transcendental apperception is an original synthetic act, while empirical self-consciousness depends on an analysis, which presupposes this original synthesis. The synthetic unity of apperception is that highest point on which all use of the understanding depends. On it depends the consciousness that "I think," which must accompany all my ideas. Even the objective unity of space and time is only possible through the relation of our perceptions to this transcendental apperception.

The categories are the conditions of thought on which all possible experience depends. The possibility and necessity of the categories depend on the relation which the whole sphere of the sensibility and with it all possible phenomena have to the primal function of apperception. All the manifold in perception must conform to the conditions of the unvarying unity of self-consciousness, the primal synthetic unity of apperception, and must hence be subject to universal functions of synthesis by conceptions. The synthesis of apprehension, which is empirical, must necessarily conform to the synthesis of apperception, which is intellectual, and is given and expressed in a manner wholly *à priori* in the category. Every object, which can be given us in perception, is subject to the necessary conditions on which the synthetic combination and unity of the manifold in perception depend, in all possible experience. The cate-

gories, as conditions *à priori* of possible *experience*, are therefore at the same time conditions of the possibility of the *objects of experience* (*i. e.*, of phenomena), and have therefore *objective* validity in a synthetic judgment *à priori*. So, on the other hand, no *à priori* knowledge is possible, except of objects of possible experience.

The conformity of things-in-themselves to law would necessarily subsist, if there were no mind to perceive and know it. But phenomena are only representations of things which are unknown to us in their intrinsic nature. As mere representations, however, they are subject to no law of combination, except that which the combining faculty may prescribe. Combination, says Kant, is not in things, and cannot be derived from them by perception, for example, and thence first transferred to the understanding; it is a work of the understanding alone, which itself is nothing more than the faculty of *à priori* combination, the faculty by which the variety of given representations is brought under the unity of apperception. This principle, adds Kant, is the highest in all human knowledge. Since now all possible perception depends on the synthesis of apprehension, and since this empirical synthesis again depends on the transcendental synthesis, and hence on the categories, it follows that all possible perceptions, and hence everything which can exist in the empirical consciousness, *i. e.*, all phenomena of nature, are subject, in what respects their combination, to the categories, which are the original ground of the necessary conformity of nature—considered simply as such—to law.*

Kant mentions supplementarily (*Cr. of the Pure R.*, 2d ed., p. 167), in addition to the two ways in which a necessary agreement of experience with the conceptions of its objects is conceivable (namely, when experience makes these conceptions, or when these conceptions make experience possible), a third intermediate way, namely, by the hypothesis, that the categories are not empirical, but subjective bases of thought, implanted in us with our existence, but so arranged by the author of our being as exactly to agree in their use with the laws of nature, which underlie experience. He denominates this hypothesis (which agrees essentially with the Leibnitzian theory of pre-established harmony, but is ascribed by Kant—*Prol.*, § 37, *note*—to Crusius) as a kind of *system of the pre-formation of the pure reason*, but pronounces against it, because its truth is inconsistent with the possession by the categories of that necessity which belongs essentially to the very conception of them. (A further indirect proof of the *mere* subjectivity of all that is *à priori*, including the forms of sensible intuition, space and time, as well as the categories, is contained for Kant in the Antinomies, of which he treats in a

* Kant teaches that for the knowledge of the particular laws of nature experience is necessary, since these laws relate to phenomena, which are empirically determined. This Kantian theory contains more than one intrinsic contradiction. 1. In that, while things-in-themselves are represented as affecting us, time and causality, which this affection implies, are reckoned by Kant as *à priori* forms, valid only within and not beyond the world of phenomena. 2. In that this affection must furnish to the mind, on the one hand, a material completely unformed and chaotic, so as not to be subject to any law incompatible with the *à priori* law of combination, and yet, on the other, an orderly material, so that every particular material may not be out of relation to every particular form—in which case all determinations in the material would be of subjective origin, and so the difference between the empirical and the *à priori* would disappear—but that the particular in phenomena, and indeed every particular law may be empirically known and determined, etc. But if the reason of the particular forms and laws of phenomena must be found in the nature of the objects or "things-in-themselves" which affect us, it is susceptible of further demonstration, that the kind and succession of affections are characterized by an order, which is possible only on the supposition that time, space, causality, etc., are objective and real functions of "things-in-themselves," whereby Kant's doctrine of the *à priori* and his Subjectivism are overthrown (cf. my *Syst. of Log.*, § 44). The same result follows also from the ideal necessity, that the particular should imply the universal. If particular laws must be ascribed to the sphere of objective, absolute reality, the universal laws, under which they may be subsumed, cannot be foreign to the same sphere and cannot be of merely subjective origin.

subsequent section, *Cr. of the P. R.*, 1st ed., p. 506; 2d ed., 534, *Ros. and Schu.*, Vol. II., 399. This proof, if it were stringent, would indeed fill up the "gap" which, according to Trendelenburg, exists in Kant's argument; but it does not do this, because the proofs for the Antinomies are without force, unless Kant's fundamental thought be admitted; cf. the works by Trendelenburg, and others, cited above, pp. 158, 159 [and below, *ad* § 132].

Pure conceptions of the understanding are entirely heterogeneous to empirical intuitions, and yet in all subsumptions of an object under a conception the representation of the former must be homogeneous with the latter. In order to render possible the application of the categories to phenomena there must exist a third factor, homogeneous with both. Such a mediating factor, in the form of an idea produced by the transcendental synthesis of the imagination, is termed by Kant a transcendental Schema of the understanding. Now time is as a form *à priori*, homogeneous with the categories, and as a form of the sensibility, with phenomena. Therefore an application of the categories to phenomena is possible through the transcendental functions or qualifications of time.

The Schemata, in the order of the categories (quantity, quality, relation, modality), are founded on the serial nature of time, the contents of time, the order of time, and on time as a whole. The schema of quantity is number. The schema of reality is being in time, and that of negation is not-being in time. The schema of substance is the persistence of the real in time; that of causality is regular succession in time; that of community, or of the reciprocal causality of substances in respect of their accidents, is the simultaneous existence of the qualifications of the one substance with those of the other, following a universal rule. The schema of possibility is the agreement of the synthesis of diverse representations with the universal conditions of time, and hence the determination of the representation of a thing as associable with some particular time; the schema of actuality is existence in a definite time, and that of necessity is existence at all times.

The relation of the categories to possible experience must constitute the whole of our *à priori* knowledge by the understanding. The principles of the pure understanding are the rules for the objective use of the categories. From the categories of quantity and quality flow mathematical principles possessing intuitive certainty, while the categories of relation and modality give rise to dynamic principles of discursive certainty.

The principle of the Axioms of (sensible) Intuition is: All sensible intuitions are extensive magnitudes. The principle of the Anticipations of Perception is: In all phenomena the real object of sensation has intensive magnitude, *i. e.*, a degree. The principle of the Analogies of Experience is: Experience is only possible through the notion of a necessary connection of perceptions; from this principle are derived the principles of the persistence of substance—or that in all the changes of phenomena the substance persists, and its quantity is neither increased nor diminished; of succession in time by the law of causality—or that all changes take place in accordance with the law of the connection of cause and effect; and of simultaneity under the law of reciprocity or community—or that all substances, in order to be perceived as co-existing in space, must be in complete reciprocity, or must exert a reciprocal action upon each other. The Postulates of Empirical Thought are: Whatever agrees (with reference to perception and conception) with the formal conditions of experience is possible; Whatever coheres with the material conditions of experience (sensation) is actual; That whose connection with the actual is determined by the universal conditions of experience is necessary.

To the proof of the second postulate, relative to the evidence of reality, Kant added in the second edition of the *Critique of the Pure Reason* a "Refutation of (material) Idealism," based on the principle that internal experience—the reality of which cannot be doubted—is impossible without external experience, and consequently that it is only possible on the condition that there exist objects in space external to ourselves. Kant's argument in proof of this is, that the qualification of time involved in the empirically determined consciousness of our own existence implies something permanent in perception, which something must be different from our ideas, in order that it may serve as a standard for the measurement of their change, and which therefore is only possible on the condition that there exists something external to us. (In the 1st ed., p. 376—Vol. II., p. 301, in Ros. and Schu.—Kant had already sought to refute the doctrine of empirical "Idealism, as resting on a false scrupulousness about admitting the objective reality of our external perceptions," arguing that external perception proves directly that there are real existences in space; that without perception even invention and dreaming would be impossible, and that therefore our external senses have, so far as it relates to the data which are necessary for experience, their real corresponding objects in space. But external objects in space, as Kant is ever repeating, are not to be considered as things-in-themselves; they are called external because they belong to the external sense, the universal form of whose intuitions is space. By the "permanent in perception" Kant can only mean the permanently phenomenal in space, or impenetrable, extended substance. Cf. also the *Proleg. to Metaphysics*, § 49.)

Although our conceptions may be divided into sensible and intellectual conceptions, yet their objects cannot be divided into objects of the senses, or *phenomena*, and objects of the understanding, or *noumena*, in the positive sense of this term; for the *conceptions of the understanding are applicable only to the objects of sensible intuition;* without such intuition (perception) they are objectless, and a faculty of non-sensible or intellectual intuition is not possessed by man. But the conception of a *noumenon*, in the negative signification of the term, that is, as denoting a thing, in so far as it is not an object of external or internal perception for us, is a correct one. In this sense things-in-themselves are noumena, which, however, are not to be conceived through the categories of the understanding, but only as an unknown Something.*

Through the confounding of the empirical use of the understanding with the transcendental arises the "*amphiboly of the conceptions of reflection.*" These conceptions are identity and diversity, agreement and repugnance, inner and outer, the

* The inference of subsequent philosophers, that because things-in-themselves are not in space, they must exist "in the world of thought," is therefore, from the Kantian point of view, inadmissible. If by that which is in the world of thought is understood something immanent in human thought, *i. e.*, a conception or a particular thought, the thing-in-itself is nothing of the kind. If by it is meant a transcendental object of thought, then the "thing-in-itself" is only in so far in "the world of thought" as it is true that we are obliged to assume its existence, but not in the sense that the categories of human thought can be applied to it. It is unmistakably true, however, that Kant's use of the conception of noumena (a conception of Platonic origin) for his things-in-themselves was, notwithstanding the proviso that it should be taken only in a negative sense, a source of confusion to Kant himself, and the occasion of the introduction of foreign elements, especially of *qualifications of worth* into the conception of things-in-themselves. That the things-in-themselves, which are without time, space, or causality, and which yet affect us, are *better* and *higher* in worth than phenomena, is at least an arbitrary supposition, which, however, receives from the Platonic term employed—especially in the antithesis: *homo* noumenon, *homo* phenomenon—an apparent support, and is thus introduced into the *ethical* domain.—Kant's doctrine of concept and perception is distinguished by its phenomenalistic [subjective] character from the Aristotelian doctrine, that the essence which is known through the concept is immanent in the individual objects, which are included in the extension of the concept, and has no separate existence.

determinable and determination (matter and form). Transcendental reflection (*reflexio*) is the act whereby I confront the comparison of ideas generally, with the cognitive faculty in which the comparison is instituted, and distinguish whether the ideas are compared with each other as belonging to the pure understanding or to sensuous intuition. Kant finds the source of the Leibnitzian system, "which intellectualizes phenomena," in the—by Leibnitz unnoticed—amphiboly of the conceptions of reflection. Leibnitz supposed that the understanding, when comparing ideas, had to do with representations of objects as they are in themselves, and took the conception of noumena in its positive sense. He held sensation to be only confused perception, and believed that when he was comparing all objects in the understanding, by the aid of the abstracted formal conceptions of human thought, he was perceiving the inner quality and nature of things. As a natural consequence, he found no other differences than those by which the understanding distinguishes its pure conceptions from each other. From these premises he concluded that whatever is ideally indistinguishable is absolutely undistinguished or identical; that realities, as being mere affirmations, cannot through their opposite tendencies neutralize each other, since there is no logical contradiction between them; that the only internal state which can be attributed to substances is an ideal or conscious state, and that their community is to be conceived as a pre-established harmony; and, lastly, that space is only the order of co-existing substances, and time the dynamic succession of their states. Kant contends that the above-named conceptions of reflection should not be applied in comparing ideas drawn from the world of phenomena, without taking into consideration the nature of sensuous intuition (which has its peculiar forms and is not merely confused perception), and that they should not be applied to things-in-themselves (or noumena) at all.

If the understanding is the faculty which by its rules introduces unity into phenomena, the Reason is the faculty which by its principles establishes unity among the rules of the understanding. The conceptions of the reason contain the unconditioned, and transcend, therefore, all the objects of experience. Kant gives the name of Ideas to those necessary conceptions of the reason for which no corresponding real objects can be given in the sphere of the senses. (Cf. Jul. Heidemann, *Plat. de ideis doctrinam quomodo Kantius et intellexerit et excoluerit, Diss. Inaug.*, Berl., 1863.) The transcendental conceptions of the reason imply absolute totality, or completeness, in the synthesis of conditions, and seek to carry the synthetic unity which is conceived in the Category up to the absolutely unconditioned. The pure reason is never directly conversant with objects, but only with the conceptions of objects, which are furnished by the understanding. Just as it was possible to derive the conceptions of the understanding from the various forms of the logical judgment, by observing and translating into conceptions the processes by which the synthesis of perceptions is effected in judgments, so the transcendental conceptions of the reason may be derived from the forms of rational inference. These forms are three: categorical, hypothetical, and disjunctive. Accordingly there are three transcendental rational conceptions expressing the unconditioned as resulting (1) from a categorical synthesis in a subject, (2) from the hypothetical synthesis of the terms of a series, (3) from the disjunctive synthesis of parts in a system. The first of these rational conceptions is that of the soul as the absolute unity of the thinking Subject; the second is that of the world as the absolute unity of the series of the conditions of phenomena; and the third is that of God as the absolute unity of all objects of thought whatever, or as the being who includes in himself all reality (*ens realissimum*). Corresponding with these three ideas are three *dialectical inferences of the reason*, which are sophistications, not of men, but of the pure reason itself, since they arise through

a natural illusion, which is as inseparable from human reason as are certain optical deceptions from vision, and which, like these, can be explained and rendered harmless, but cannot be entirely removed. The Idea of the soul as a simple substance is the subject of the psychological paralogism; the Idea of the universe is the subject of the cosmological antinomies, and, lastly, the Idea of a most real being, as the ideal of the pure reason, is the subject of the attempted proofs of the existence of God.

Rational Psychology, says Kant, is based solely on the consciousness which the thinking I has of itself; for if we were to call in the aid of our observations on the play of our thoughts, and on the natural laws thence derivable (as, *e. g.*, Herbart subsequently did, when he attempted to found a proof of the punctual simplicity of the soul on the mutual combination of representations), there would spring up an empirical psychology, unable to demonstrate the reality of attributes beyond the reach of possible experience—such as the attribute of simplicity—and having no possible claim to apodictical certainty. From the consciousness of the Ego, rational psychology seeks to demonstrate that the soul exists as a substance (an immaterial substance), that as a simple substance it is incorruptible, and that as an intellectual substance it is ever identical with itself or is one person, in possible commerce with the body and immortal. But the arguments of rational psychology (in the statement of which Kant seems chiefly to have adopted the form in which they are presented in Knutzen's *Von der immateriellen Natur der Seele*, Reimarus' *Die vornehmsten Wahrheiten der natürlichen Religion*, and Moses Mendelssohn's *Phædon*) involve an illegitimate application to the Ego, as a transcendental object, of the conception of substance, which presupposes sensuous intuition, and applies only to phenomenal objects. That I, who think, must always be regarded in every act of thought only as subject and as something, which is not a mere appurtenance or predicate of thought, is an apodictical and even an identical proposition; but it does not signify that I am objectively an independent essence or substance. So, too, it is implied in the very conception of thought that the "I" of apperception denotes a logically simple subject—which is an analytical proposition; but this does not signify that the thinking I is a simple substance—which would be a synthetic proposition. The affirmation of my own identity in the midst of all the changing contents of consciousness is, again, an analytical affirmation; but from this identity cannot be inferred the identity of a thinking substance, existing amid all change of states. Finally, that I distinguish my existence, as that of a thinking being, from the existence of other things external to me, including among the latter my own body, is an analytical proposition; but it does not enable me to know whether this consciousness of myself would be possible if there were no things beside and external to me, and whether, therefore, I could exist without a body.

The difficulty of explaining the interaction between soul and body is increased by the assumed fact of their heterogeneity, the former being regarded as existing only in time, the latter in both time and space. But if we consider (says Kant, *Cr. of the Pure R.*, 2d ed., p. 427 seq.) that the two classes of existences assumed in this hypothesis are distinguished, not interiorly, but only by the fact that the one is phenomenally external to the other, and hence that that which underlies the phenomenon of matter as its reality, or as the thing-in-itself, *may perhaps not be so unlike the soul itself*, this difficulty disappears, and the only question remaining is how a community of substances is in any sense possible—a question which neither psychology nor any other form of human science can answer. The idea, here only briefly intimated, of the *possible homogeneity* of the realities which underlie, respectively, the phenomena of the external and those of the internal sense, is more fully developed in the first edition of

the *Cr. of P. R.* Empirical psychology, says Kant, since it has reference to phenomena only, is properly dualistic; but transcendental psychology favors neither dualism nor pneumatism (spiritualism) nor materialism, all of which hold the diversity of manner in which objects—whose intrinsic nature remains unknown—are mentally represented to be significant of a corresponding diversity in the nature of these things themselves. "The transcendental object which underlies external phenomena, as also that which underlies internal intuition, is in itself neither matter nor a thinking being, but only a (to us) unknown ground of the phenomena, from which we derive our empirical conceptions of either kind" (*Cr. of the Pure Reason*, 1st ed., p. 379, Ros., II., p. 303). "I can very well suppose that the substance to which *our external sense* attributes extension, is in itself the subject of thoughts which can be consciously represented to itself *by its own internal sense;* thus that which in one aspect is called material would in another aspect be also thinking being, not whose thoughts, but the signs of whose thoughts we can perceive in phenomena" (*ib.*, p. 359, Ros., II., 288 seq). This latter supposition, here named as a possible one, borders upon the doctrine of the Leibnitzian monadology, which teaches that complexes of monads—not single monads—appear to our senses as extended things, and at the same time contain beings which have ideas (representations), and may contain beings capable of conscious representation and thought. It is still less removed from the view developed by Kant in his "*Monadologia Physica.*" In another sense it contains points of contact with Spinozism, which ascribes to the one only substance thought and extension, but as real and not merely phenomenal attributes. In the second edition of the *Critique of Pure Reason*, Kant did not deny the possibility thus suggested in the first edition, but rather suggested it anew in the passage above cited, though refraining from a more detailed development of the idea. The thought, therefore, is not changed in the second edition, but the critical principle is more strictly applied, in that Kant now prefers to give no space to the development of indemonstrable dogmatic theories, even as hypotheses, but to confine himself to the most brief suggestion of them. We may add that the meaning of the hypothesis in question is obviously not that the transcendental substratum of external phenomena is identical with the thinking Ego, or that it is only a thought of the Ego, but that it is possibly itself also a thinking essence, and therefore of like nature with the transcendental substratum of the internal sense—just as, for example, in the Leibnitzian system all monads are mutually homogeneous, or rather, just as those physical monads are homogeneous, which Kant assumes in his *Monadologia Physica* of the year 1756; only because, according to Kant, we have no precise knowledge whatever of the transcendental substratum, does it further follow that still other theories, such as, for example, the theory of the identity of subject and object, cannot, as hypotheses, be refuted. It would be very unjust to identify the conjecture here ventured by Kant with the subjectivism of Fichte. It is true that Kant's utterances respecting transcendental objects, or things-in-themselves, are, in a measure, uncertain; but this uncertainty (which is a natural consequence of the contradiction inseparable from the Kantian doctrine, in that the transcendental object is represented as the cause of phenomena, and yet, according to Kant, cannot be a cause) is observable in the first edition of the *Cr. of P. Reason*, and not (as Schopenhauer and others have asserted) in the second only. Cf., for example, the passages—which exist in both editions—on page 235 (Vol. II., of Rosenkranz's edition of Kant's works), on the one hand, and, on the other, those on p. 391, line 9 from above and following, and *Prolog.*, § 57 (*ib.*, III., p. 124). Though it be true, that in the first edition of the *Critique* those passages are more frequent in which Kant emphasizes our ignorance concerning the nature of transcendental

objects, while later, in the second edition, when he is striving, in view of misapprehensions that had arisen, to render more clear the difference between his doctrine and the Idealism of Berkeley, passages, in which stress is laid on the necessity of postulating the existence of things-in-themselves as the transcendental basis of the world of phenomena, became somewhat more numerous, yet Kant's doctrine remained essentially the same, viz.: that we must assume *that*, though we know not *how*, transcendental objects or things-in-themselves do exist. In the first ed., p. 105, Kant only says that these objects are nothing *for us*, and on p. 109 it is only when considered as = x, that they are said to be nothing for us. But it would be a decidedly false interpretation of Kant dogmatically to identify the transcendental object of the external or the internal sense, the noumena or "things-in-themselves"—with which, as Kant in both editions of the *Critique* teaches, the manifold affections of the external and internal senses originate, and with which Kant's distinction of the empirical from the *à priori* is necessarily connnected—with "the unity of the essence in the multiplicity of phenomena." *

The Cosmological Idea is the source of four Antinomies, *i. e.*, pairs of mutually contradictory propositions, which follow, all with equal consequence, from the supposition of the reality of the phenomenal world, in the transcendental sense of the term "reality." The four antinomies correspond with the four classes of categories. (Cf. in addition to the critiques by Herbart, Hegel, Schopenhauer, and others, in particular, Reiche, *De Kantii antinomiis quæ dicuntur theoreticis*, Gött., 1838; Jos. Richter, *Die Kantischen Antinomien*, Mannheim, 1863.)

The *quantity* of the world is the subject of the First Antinomy. *Thesis:* The world had a beginning in time and has limits in space. *Antithesis:* The world is without beginning and without limits in space.

The Second Antinomy relates to the *quality* of the world. *Thesis:* Every composite substance in the world is made up of simple parts. *Antithesis:* There exists nothing simple.

The Third Antinomy concerns the *causal relation*. *Thesis:* Freedom, in the transcendental sense of the term, is a reality, or there may be absolute, uncaused beginnings of series of effects. *Antithesis:* All things, without exception, take place in the world in accordance with natural law.

The Fourth Antinomy is one of *modality*. *Thesis:* There belongs to the world (whether as part or as cause) an absolutely necessary being. *Antithesis:* Nothing is absolutely necessary.

The proofs and counterproofs given by Kant in connection with these Antinomies are all indirect. In the proof of each thesis, the infinite progression affirmed in the corresponding antithesis is disputed as impossible, while in proving the antithesis the limit assumed in the thesis is rejected as arbitrary and unreal.

Kant solves the antinomies by his distinction between phenomena and things-in-themselves. In reference to the world as a transcendental object, or noumenon, or intelligible world, thesis and antithesis in the two first or mathematical antinomies are alike false. We cannot apply to the intelligible world the conceptions of space and time which are involved in the predicates "limitation in space and time," and "infinite extension in space and time," and an analogous argument may be employed with reference to the predicates "simplicity" and "complexity;" hence neither the one nor the

* This by way of complement, and, in part, for the sake of giving greater precision to the arguments in my work: *De priore et posteriore forma Kantianæ Critices Rationis Puræ*, Berl., 1862, and by way of rejoinder to Michelet's reply in his Review, "*Der Gedanke*," Vol. III., Berlin, 1862, pp. 237–243; cf. my *Syst. der Log.*, 3d ed., Bonn, 1868, p. 43.

other of the contradictory predicates can be applied to that world, and from the non-applicability of the one the applicability of the other cannot be inferred; the contradiction in form between Thesis and Antithesis is in reality only an apparent one, a "dialectical opposition." But we must admit, as a *regulative* principle of speculative investigation, the requirement that no limit be regarded as absolutely ultimate. In the two last or dynamic Antinomies the Thesis is true of the intelligible world, the Antithesis of the phenomenal. Every phenomenon depends necessarily upon some other phenomenon or phenomena, but things-in-themselves are free. Within the sphere of the phenomenal there exists no unconditioned cause, but outside of the whole complex of phenomena there exists, as their transcendental ground, the Unconditioned.

The sum of all realities or perfections, conceived *in concreto* and even *in individuo* as an exemplar or transcendental prototype, is the Theological Ideal. The theoretical proofs of God's existence are the so-called ontological, cosmological, and teleological or physico-theological arguments.

The Ontological Argument concludes from the conception of God as the most real being to his existence, since existence—necessary existence—belongs in the class of realities, and is therefore contained in the conception of the most real being. Kant here disputes the assumption that being is a real predicate, by adding which to other predicates the sum of realities may be increased. The comparison, says Kant, between a being possessing other predicates, but not being, and a being combining with these other predicates that of being, and hence by so much greater, more perfect, or more real than the former, is absurd. When being is affirmed, the object is posited with all its predicates. This is the meaning of being. When being is not affirmed—or, what is the same thing, when the object is not thus posited—no conclusion can be drawn from the conception of the object to its predicates. Hence, in reasoning to the existence of God, if being is to be demonstrated as a predicate, being must have been already previously assumed, whence we arrive only at a pitiful tautology. This tautological conclusion would be an identical, hence an analytical proposition, while the assertion that God is, is, like all existential propositions, a synthetic one, and can therefore not be demonstrated *à priori* in regard to a *noumenon*.

The Cosmological Argument concludes from the fact that anything exists to the existence of an absolutely necessary being, which being, by the aid of the ontological argument, is then identified with God as the most real or perfect being (*ens realissimum* or *perfectissimum*). Kant, *per contra*, denies that the principles which regulate the use of the reason justify us in prolonging the chain of causes beyond the sphere of experience; but, he adds, if the argument did really conduct to an extramundane and absolutely necessary cause, it could not demonstrate that this cause is the absolutely perfect being; and to take refuge in the ontological argument is shown inadmissible by the demonstrated invalidity of the latter.

The Teleological Argument concludes from the order and adaptation in nature to the absolute wisdom and power of its author. Kant speaks of this argument with respect, on account of its efficacy in producing conviction, but denies its scientific validity. The conception of finality can, according to Kant, no more than the conception of cause, be employed in justification of conclusions which lead us beyond all the limits of the world of phenomena; for it too is of egoistic or subjective origin, and is, like the conception of cause, transferred by man from himself to things, but it is invalid as applied to transcendental objects. Did, however, the teleological argument lead to an extramundane author of the world, it would only prove the existence of a world-builder of great power and wisdom, according to the degree of adaptation manifest in

the world, but not that of an almighty and all-wise creator of the world. And here, again, to supplement the argument by having recourse to the ontological argument would be unjustifiable.

The Ideal of the Reason, or the Idea of God, like all transcendental conceptions of the reason, has theoretical validity only in so far as it, as a *regulative* principle, serves to lead the understanding in all empirical cognition to seek for systematic unity. The transcendental ideas are not *constitutive* principles through which certain objects lying beyond the reach of experience may be known; they simply require of the understanding systematic unity and completeness in its comprehension of the field of experience. We are required by a correct maxim of natural philosophy to abstain from all theological and from all transcendent explanations of the arrangement of nature generally. But in the employment of the practical reason the Ideal of the Reason may serve as a form of thought for the highest object of moral and religious faith.

In the "Doctrine of Method" Kant makes many valuable observations relating to metaphysics as a science dependent on the critique of the reason, but contributes nothing to the material development of the doctrine of the relation of human thought to objective reality, contenting himself with simply deducing methodological consequences from the doctrines previously established. It may here suffice to cite an affirmation of Kant's in the part of the "Doctrine of Method" relating to the "Discipline of the Reason in its Polemical Use" (*Cr. of the Pure R.*, 1st ed. p. 747; 2d ed. p. 775, Ros., II., p. 577): "It is extremely preposterous to expect from the reason enlightenment, and yet to dictate to it beforehand on which side the weight of its authority must necessarily fall."

Kant's Physical Philosophy is closely related to the doctrine contained in the *Critique of the Pure Reason*, and especially to the Transcendental Æsthetic and Analytic.* (Cf. Lazarus Bendavid, *Vorlesungen über die metaph. Anfangsgr. der Naturw.*, and, *per contra*, Schwab, *Prüfung der Kantischen Begriffe von der Undurchdringlichkeit, der Anziehung und der Zurückstossung der Körper, nebst einer Darstellung der Hypothese des le Sage über die mechanische Ursache der allgemeinen Gravitation*, 1807, and Fr. Gottlieb Busse, *Kants metaph. Anfangsgr. der Naturw. in ihren Gründen widerlegt*, Dresden, 1828; see also G. Reuschle, *Kant und die Naturwissenschaft*, in the *Deutsche Vierteljahrsschrift*, April–June, 1868, p. 50, and especially on Kant's dynamic theory of matter, *ibid.*, pp. 57–62.)

* If it is the business of physical philosophy to explain the phenomena of nature by reference to that which as transcendental object or thing-in-itself underlies them, then such a philosophy is impossible from the Critical stand-point which restricts us to the knowledge of phenomena, these phenomena being our ideas. The "*Metaphysical Principles of Natural Science*" can only contain a systematic collection of what Kant holds to be *à priori* principles of natural philosophy. When, nevertheless, Kant goes beyond the phenomenal, and when, especially, matter is reduced by him to forces, these forces, which lie behind phenomena, occupy in his system an untenable middle position between the phenomenal and the noumenal, between the appearance and the thing-in-itself. According to the *Critique of the Pure Reason* it is the spaceless and timeless thing-in-itself which so affects our (in themselves likewise spaceless and timeless) senses that sensations arise in us which are brought by the "I" into harmony with the *à priori* forms of intuition and thought. In the *Met. Principles of Nat. Science* Kant says: "It is only through *motion* that the external senses can be affected." In consistency with the teachings of the *Critique of the Pure Reason* this can only mean: when the affection itself becomes phenomenal (when we not simply suffer an affection, but perceive the process of the affection in the case of other sensitive beings or of ourselves, *e. g.*, when we *see* the blow which awakens the sense of feeling or perceive through the sense of sight or touch the vibration of the chord which affects our ears, etc.), then must the spaceless and timeless relation, on which the production of sensations really depends, appear to us as motion. But this limitation, under which alone, according to the principles of the *Critique of the Reason*, the doctrine of affection through motion can be received, passes in the natural philosophy built up upon it more and more into the back-ground, and this hovers in an uncertain medium between an *à priori* theory of phenomena (existing only in human consciousness) and a theory of real objects (which exist independently of the consciousness of perceiving beings, which subsisted possibly antecedently to the existence of organized beings, and on which the existence of sensations depends, and) which underlie all natural phenomena. In reading the "*Metaphysical Principles of Natural Science*" it is necessary in one regard to forget, and yet in another ever to remember, that according to the logical consequence of Kant's System we have to do simply with processes which take place only within human consciousness, and which therefore are by that fact psychically conditioned, and cannot constitute conditions of the existence of beings capable of possessing sensations and ideas.

Kant divides the "Metaph. Principles of Natural Science" into four principal parts. The first of them treats of motion as a pure quantity, and is called by Kant Phoronomics; the second considers motion as belonging to the quality of matter, under the name of an originally moving force, and is called Dynamics; the third, Mechanics, treats of the parts of matter with this quality as placed by their own motion in mutual relation; while the fourth defines motion and rest in matter simply in relation to the mode in which we mentally represent them, or to modality, and is termed by Kant Phenomenology.

In the Phoronomics Kant defines matter as the movable in space, and deduces in particular the proposition that no motion can be neutralized except by another motion of the same mobile object in the opposite direction. In the Dynamics he defines matter as the mobile in so far as it fills any given space, and lays down the proposition: "Matter fills a certain space, not by the mere fact of its existence, but in virtue of a special moving force belonging to it." He attributes to matter the force of attraction—defining it as that moving force through which one portion of matter can be the cause of the approach of others to it—and the force of repulsion, or the force whereby one portion of matter can cause other portions to recede from it, and he defines more precisely the force through which matter fills space as being the force of repulsion, saying: "Matter fills its spaces in virtue of repulsive forces belonging to all its parts, *i. e.*, through a force of extension peculiar to itself, which is of definite degree, below or above which smaller or greater degrees can be conceived *in infinitum*." Elasticity, in the sense of expansive force, belongs therefore originally to all matter. Matter is infinitely divisible into parts, each of which is itself matter; this follows from the infinite divisibility of space, and from the repulsive force belonging to every portion of matter. The force of repulsion decreases in the inverse ratio of the cubes of the distances; the force of attraction, on the contrary, inversely as the squares of the distances. In the part entitled Mechanics Kant defines matter as the mobile in so far as it, as such, possesses motive force, and deduces thence, in particular, the fundamental laws of mechanics: Amidst all the changes of the material realm of nature the whole quantity of matter remains the same, unaugmented and undiminished; All change in matter has an external cause (law of persistence of rest and motion, or law of *inertia*); In all cases of the communication of motion, action and reaction are equal. In the Phenomenology Kant defines matter as the mobile in so far as this, as such, can be an object of experience, and develops the propositions, (1) that the rectilinear motion of a portion of matter with reference to an empirical portion of space, as distinguished from a conceivable opposite motion of the space itself (the portion of matter in the latter case remaining unmoved), is simply a possible predicate (but that when conceived out of all relation to some portion of matter external to the portion in motion, *i. e.*, when conceived as absolute motion, it is impossible); (2) that the circular motion of any portion of matter, in distinction from the conceivable opposite motion of the space in which it moves, is a real predicate of the same (but that the apparent opposite motion of a relative space is a mere semblance); (3) that in the case of every motion of a body, in virtue of which it moves with reference to another body, an equal opposite motion of the latter is

necessary. The first of these phenomenological laws determines the modality of motion with reference to Phoronomics, the second with reference to Dynamics, and the third with reference to Mechanics.

The transition from the *Metaphysical Principles of Natural Science* to physics is provided for in the "*Metaphysics of Nature*" (a work co-ordinated with the *Metaphysics of Ethics*, which includes the doctrines of legal right and of morality), which treats of the motive forces of matter, and is divided by Kant into an "Elementary System" and a "System of the World." The manuscript was left unfinished. (Some fragments of it will perhaps soon be edited by Reicke.)

§ 123. As Kant, in his *Critique of the Pure Reason*, sets out from the distinction and opposition which he finds existing between empirical and *à priori* knowledge, so the analogous opposition between sensuous propensity and the law of reason forms the foundation of his *Critique of the Practical Reason*. All the ends to which desire may be directed are viewed by Kant as being empirical, and accordingly as furnishing sensuous and egoistic motives for the will, which are all reducible to the principle of personal happiness; but this principle, says Kant, is, according to the immediate testimony of our moral consciousness, directly opposed to the principle of morality. As motive for the moral will Kant retains, after excluding all material motives, only the form of possible universality in the law which determines the will. The principle of morality is contained, for him, in the requirement: "Act so that the maxim of thy will can at the same time be accepted as the principle of a universal legislation." This "fundamental law of the practical reason" bears the form of a command, because man is not a purely rational being, but is also a sensuous being, and the senses are in constant active opposition to reason. It is not, however, a conditional command, like the maxims of prudence, which are only of hypothetical authority, being valid only when certain ends are to be attained, but it is an unconditional and the only unconditional command, the Categorical Imperative. Consciousness of this fundamental law is a fact of the reason, but not an empirical one; it is the only fact of the pure reason, which thus manifests itself in the character of an original law-giver. This command flows from the autonomy of the will, while all material, eudæmonistic principles flow from the heteronomy of arbitrary, unregulated choice. Outward conformity to law is legality, but right action, prompted by regard for the moral law, is morality. Our moral dignity depends on our moral self-determination. Man, in his character as a rational being or a "thing-in-itself," gives law to himself as a sensuous being or a phenomenon. In

this, says Kant (who here treats the theoretical difference between thing-in-itself and phenomenon practically as a difference of worth), is contained the origin of duty. On the moral consciousness are founded three morally necessary convictions, which Kant terms "postulates of the pure practical reason," viz.: the conviction of our moral freedom —since the affirmation: "thou canst, for thou oughtest," forces us to assume that the sensuous part of our being may be determined by the rational part; of our immortality—since our wills can approximate to conformity with the moral law only *in infinitum;* and of the existence of God as the ruler in the kingdoms of reason and nature, who will establish the harmony demanded by the moral consciousness between moral worth and happiness.

The fundamental conception of Kant's philosophy of religion, which he develops in his "*Religion within the Limits of Mere Reason*," is expressed in his reduction of religion to the moral consciousness. The courting of favor with God through statutory religious actions or observances, which are different from the moral commands, is mock service; the truly religious spirit is that which recognizes all our duties as divine commands. Through an allegorizing interpretation, Kant reduces the dogmas of positive theology to doctrines of philosophical ethics.

In addition to the literature adduced in the preceding paragraph, and the passages in the works of F. H. Jacobi, Schleiermacher, Schelling, Hegel, Herbart, Beneke, Schopenhauer, and others, in which Kant's ethical doctrines are examined, as also Wegscheider's *Vergleichung Stoischer und Kantischer Ethik* (Hamburg, 1797), and Garve's *Darstellung und Kritik der Kantischen Sittenlehre* (in the Introductory Essay to his translation of Aristotle's *Ethics*, Breslau, 1798, pp. 183–394), etc., cf. Strümpell (*Die Pdd. der Ph. Kant, Fichte, Herbart*, Brunswick, 1843) and Arthur Richter (*Kant's Ansichten über Erziehung, G.-Pr.*, Halberstadt, 1865) on Kant's doctrine of education; L. Paul (Halle, 1865) on Kant's doctrine of radical evil, and Ch. A. Thilo (in the *Zeitschr. f. exacte Philos.*, Vol. V., Leips., 1865, pp. 276–312; 353–397) on Kant's religious philosophy in general; Paul (in the *Jahrbücher für deutsche Theologie*, Vol. XI., 1866, pp. 624–639) on Kant's doctrine of the Son of God as an imagined ideal of humanity; Paul (Kiel, 1869) on Kant's doctrine of the ideal Christ; J. Quaatz (*Diss.*, Halle, 1867) on Kant's doctrine of conscience; O. Kohl (*Inaug. Dissert.*, Leipsic, 1868) on Kant's doctrine of the freedom of the human will. On the relation of the Kantian Ethics to the Aristotelian cf., in addition to the works cited in Vol. I., § 50, by Brückner and others, especially Trendelenburg, *Der Widerstreit zwischen Kant und Arist. in der Ethik*, in the 3d vol. of his *Hist. Beitr. zur Philos.*, Berl., 1867, pp. 171–214. [Cf. further, James Edmunds, *Kant's Ethics*, in the *Journal of Speculative Philosophy*, Vol. V., St. Louis, 1871, pp. 27–38, 108–118.—*Tr.*]

To his principal work on practical philosophy Kant did not give the title: Critique of the *Pure* Practical Reason, but *Critique of the Practical Reason*, affirming that the work to be undertaken was a critique of the entire practical faculty, with a view to showing that there is a pure practical reason; the latter being shown to exist, it would not, like the pure speculative reason, stand in need of a critique to hinder it from transcending its limits, for it proved its own reality, and the reality of its conceptions, by an argument of fact (*Crit. of the Pract. Reason*, Preface).

Kant expounded the fundamental ideas of the *Critique of the Practical Reason* most fully in his *Groundwork of the Metaphysics of Morals* (which preceded this *Critique*).

Kant defines the word *maxim* as denoting a subjective principle of willing; the objective principle, on the contrary, which is founded in the reason itself, is termed by him the *practical law;* he includes both together under the conception of the *practical principle, i. e.*, a principle which contains a universal determination of the will, involving several practical rules (*Groundwork of*, etc., Sect. 1, Note; *Crit. of the Pract. Reason*, § 1). He argues: All practical principles which presuppose an object (matter) of the faculty of desire as the determining ground of the will are, without exception, empirical, and can furnish no practical laws (*Cr. of the Pract. Reason*, § 2). All material practical principles are, as such, wholly of one and the same kind, and belong under the general principle of self-love or personal happiness. By happiness Kant understands "a consciousness on the part of a rational being of the agreeableness of life, accompanying without interruption his entire existence." The principle which makes of this agreeableness the highest motive of choice is termed by him the principle of self-love (*ib.*, § 3). Since now Kant denies to all that is empirical that necessary character which is requisite for a law, and since all the "matter" of desire, *i. e.*, every concrete object of the will, which serves as a motive, bears an empirical character, it follows that, if a rational being is to conceive his maxims as practical universal laws, he can only conceive them as principles, which, not by their matter, but only in view of their form, as adapted to the purposes of universal moral legislation, are fitted to direct the will (*ib.*, § 4). The will which is determined by the mere form of (universal) law, is independent of the natural law of sensible phenomena, and therefore free (*ib.*, § 5), as also, conversely, a free will can only be determined by the mere form of a maxim, or by its fitness to serve as a universal law (*ib.*, § 6). Now we are conscious that our wills owe fealty to a law which is of absolute validity; our wills must, therefore, be capable of being determined by the mere form of a law, and hence are free. Pure reason is by itself and independently practical, and gives man a universal law, which we term the Moral Law (*ib.*, § 7). This fundamental law of the pure practical reason, or the Categorical Imperative, is expressed by Kant in the *Groundwork of the Metaphys. of Morals* in a threefold formula: 1. Act according to maxims of which thou canst wish that they may serve as universal laws, or, as if the maxim of thy action were by thy will to become the universal law of nature; 2. Act so as to use humanity, as well in thine own person as in the person of all others, ever as end, and never merely as means; 3. Act according to the Idea of the will of all rational beings as the source of an universal legislation. In the *Critique of the Practical Reason* he confines himself to the one formula (§ 7): Act so that the maxim of thy will can likewise be valid at all times as the principle of a universal legislation. Whenever the maxim under which an action would fall would, if raised to the dignity of an universal law, absolutely destroy itself by an inner contradiction, then abstinence from such action is a "perfect duty;" whenever we at least cannot wish that it should be a universal law, because then the advantage which we hoped to reap through it would be converted into injury, abstinence is an "imperfect duty." Kant terms self-determination in conformity to the Categorical Imperative, "Autonomy of the Will;" but all founding of the practical law on any "matter of the will" whatever, *i. e.*, on any ends to be sought, especially on the end of (one's own or even of all men's) happiness, is simply the "Heteronomy of Arbitrary Choice."*

* It is easy to see that Kant, in this argument against "Eudæmonism," first degrades the conception of Eudæmonism by limiting it to the gratification of sensuous and egoistic aims, and then, measuring it by the standard of the purer moral consciousness, finds it, naturally, insufficient and untenable. Supposing it once determined what duty requires, then this should be done for the very reasons which constitute it a matter of duty, and not on account of any supposable "eudæmonistic" side-ends; this true proposition is quite distinguishable from the false one, that the requirements of duty are not based on ends; it is only these supposed *side*-ends which can lead to real heteronomy. Kant's merit is very considerable for what he has done to purify and quicken the direct moral consciousness, and, especially, to incite to the pursuit of moral independence; but he errs in identifying the stage at which one first ceases the pursuit of collateral ends through respect for the law, with that of essential morality. In his exaltation of respect for the rights of man, as an unconditional duty above "the sweet feeling of doing good" (cf. the essay of Kant on "Lasting Peace," Ros. and Schub.'s ed., VII., 1, p. 290), of material and intellectual labor above idle enjoyment (cf. the essay on a "Gentle Tone in Philosophy"—Ros. and Schub, I., 622, and the essay on the "Conjectural Beginning of Human History," Ros. and Schub., VII., 376 seq.), and in his denunciation of lawless caprice, he occupies perfectly justifiable ground, as opposed to those who so interpreted the ideas of personal and public welfare as to find in them ground for sacrificing the very noblest and highest interests of the free intellect to sensuous gratification, to the public welfare as interpreted from a one-sided stand-point, and to the maintenance of external quiet and order. But his polemics do not bear upon the true and more profound conception of Eudæmonism, as established notably by Aristotle, who recognizes the essential relation of pleasure to activity, and founds ethics on the gradation of functions. In particular, Kant overlooks in his argument the fact that the necessity for society of universal laws, and of their being held sacred, follows also from the eudæmonistic principle. The middle term or conception by means of which Kant justifies his classification even of the noblest intellectual ends among the objects of egoistic desire, and hence also his exclusion of them from the moral principle, is the conception of their *empirical* character: as empirical ends they lack, he says, the characteristic of necessity; they belong to the world of sensible phenomena, to mere nature, and not to the realm of freedom; they depend only on the principle of personal sensuous happiness; all that is noblest and highest must be altogether non-empirical. But in reality the noble as well as the ignoble, love as well as self-seeking, are matters of (external and internal) experience. The distinction between things in point of worth is specifically different from the distinction between the empirical and the non-empirical. Kant's denial of the origin of the moral law in real ends corresponds most exactly with his denial of the origin of apodictical knowledge in experience, which latter denial in the *Critique of the Pure Reason* is most intimately connected with his new interpretation of the conception of *à priori* knowledge. Hence a twofold misfortune: 1. The higher is brought into abrupt and irreconcilable antagonism to the lower, and the idea of a gradation is made impossible; 2. the higher is conceived only in its formal aspect, not understood in the light of the order immanent in itself, but represented as a form generated in some incomprehensible manner, apart from the category of time, by the Ego, by which it is communicated to the in itself formless material furnished by experience. Kant confounds in his ethics the order of ends, in respect of worth, with the logical form of possible universality; and it is only by reference to the character of rational beings as ends to themselves that he, incidentally, finds a real moral norm. But the ethical work of the individualization of action is misapprehended by him, and sacrificed to the empty form of possible universality. Kant wrongly regarded the form of logical abstraction, on which the possibility of juridical and military order depends, as an original form of morality. It is true that no single simple end, viewed by itself alone, is either moral or immoral: that morality demands not a sporadic well-doing, but fidelity, from a sense of duty, to a moral law, and depends on the conformity of the will with a judgment concerning the will, which is founded in the recognition of a moral order universally binding, just as it is true that no single simple experience, viewed by itself alone, involves apodicticity, but that all apodicticity depends on the application to experience of a complex of knowledge resting on principles. But it is not true that order in knowledge and praxis originates in the reason of the Subject alone, and that it is first introduced by the latter to a "matter," in itself without order; it depends, on the contrary, on the reception of the order, which exists objectively, into our knowledge and praxis. The norms of logic flow from the relation of perception and thought in us to the spatial, temporal, and causal order of the natural and intellectual objects of knowledge, and the norms of ethics flow from the relation of our willing and praxis to the order of worth, which exists in the various natural and spiritual ends which can be proposed to the will. The relation of the moral order, to the objective order of worth in natural and spiritual functions is just like that of apodicticity in knowledge to the objective necessity present in the natural and spiritual processes known. Cf. my article *Ueber das Aristotelische, Kantische und Herbart'sche Moralprincip*, in Fichte's *Zeitschrift für Philos. und philos. Kritik*, Vol. 24, 1854, p. 71 seq., and *System of Logic*, *ad* §§ 57 and 137. [Cf. Lotze MIKROKOSMUS.]

The Categorical Imperative serves Kant in the *Critique of the Practical Reason* as a principle for the deduction of human freedom, since in the moral law he finds a law of causality through freedom, and hence a law implying the possibility of a supra-sensible nature. Herewith, however, according to Kant, nothing is added to the theoretical knowledge of the reason, but the reason is confirmed in its assurance of the reality of

the conception of freedom, which was assumed by it as possible (in the cosmological Antinomies), and whose objective, although only practical reality, is here made a certainty. The conception of cause is here employed only with practical intent, the determining motive of the will being found in the intelligible order of things; but the conception which the reason forms of its own causality as a noumenon is of no theoretical service in increasing the knowledge of its supra-sensible existence. Causality, in the sense implied by freedom, belongs to man in so far as he is a thing-in-itself (noumenon); while causality, in the sense implied in the mechanism of nature, belongs to him in so far as he is a subject of the realm of appearances (phenomena). The objective reality, which belongs practically to the conception of causality in the sphere of the supra-sensible, gives also to all other categories the like practical reality and applicability, in so far as they are necessarily related to the determining ground of the pure will, the moral law; so that Kant in the *Critique of the Practical Reason* recovers practically what in the *Critique of the Pure* (Speculative) *Reason* he had theoretically given up. Kant ascribes to the pure practical reason the primacy over the speculative reason, *i. e.*, a priority of interest; and affirms that the speculative reason is not justified in following obstinately its own separate interest alone, but that it must seek to combine with its own conceptions the theorems of the practical reason, which lie above the sphere of the speculative reason (although they do not contradict it), regarding them as an extraneous possession transferred to it. (*Crit. of the Pract. Reason*, Ros. and Schub.'s ed., VIII., p. 258 seq.*)

As an independent being, and one not subject to the universal mechanism of nature, man has Personality, and belongs to the realm of things which are ends to themselves, or noumena. But since this freedom is the faculty of a being subject to peculiar, purely practical laws, given by his own reason; in other words, since every person, while belonging to the sensible world, is subject to the conditions of his own personality, as resulting from his citizenship in the intelligible world, there follows the fact of moral Duty. Kant extols duty as a sublime and great name, that covers nothing which savors of favoritism or insinuation, but demands submission, threatening nothing which is calculated to excite a natural aversion in the mind, or designed to move by fear, but merely presenting a law which of itself finds universal entrance into the mind of man, and which even against the will of man wins his reverence, if not always his obedience —a law before which all inclinations grow dumb, even though they secretly work against it (*Crit. of the Pract. R.*, Ros. and Schub.'s ed., VIII., 214). In like spirit he says: "Two things fill the mind with ever new and increasing admiration and awe, the oftener and longer we reflect upon them: the starry heavens above and the moral law within" (*ib.*, Conclusion, VIII., 312). The moral law is holy (inviolable). Man is, indeed, unholy enough, but humanity, as represented in his person, must to him be holy. With the idea of personality is connected the feeling of respect, since it sets before our eyes the dignity of our nature as seen in its destination, and enables us at the same time to observe the deficiency of our conduct as viewed in the light of that destination, and so strikes down our self-conceit (*ib.*, VIII., 215).

The moral principle is a law, but freedom is a postulate of the pure practical reason. Postulates are not theoretical dogmas, but necessary practical assumptions which add nothing to our speculative knowledge, but, through their relation to the practical realm, give to the ideas of the speculative reason in general objective reality, and justify the reason in the use of conceptions, the possibility of which, even, it otherwise could not

* The uncertain mingling of theoretical with practical certainty is here obvious.

presume to affirm; in other words, postulates are theoretical, but not as such demonstrable propositions, which are inseparably connected with an *à priori*, unconditional, practical law. In addition to freedom there are two other postulates of the pure practical reason, namely, the immortality of the human soul and the existence of God.

The postulate of immortality flows from the practical necessity of a duration sufficient for the complete fulfilment of the moral law. The moral law requires holiness, *i. e.*, perfect conformity of the will to the moral law. But all the moral perfection to which man as a rational being, belonging also to the sensible world, can attain, is at the best only virtue (*Tugend*), *i. e.*, a legally correct spirit arising from respect for the law. But the consciousness of a continual bent toward transgression, or at least toward impurity of motive, *i. e.*, toward the intermixture of imperfect, non-moral motives of obedience, accompanies this spirit in its best estate. From this conflict between what is morally required of man and man's moral capacity follows the postulate of the immortality of the human soul; for the conflict can only be brought to an end through a progressive approximation to complete conformity of the spirit to the requirements of the law, a progress that must continue *in infinitum*.

The postulate of the existence of God follows from the relation of morality to happiness. The moral law, as a law of freedom, commands, by presenting motives which, must be perfectly independent of nature and of any supposable agreement of nature with the impulses of human desire; consequently there is not in it the least ground for a necessary connection between morality and a degree of happiness proportioned to it. There exists between morality and happiness not an analytical, but only a synthetic connection. The selection of the right means for assuring the most pleasurable existence possible is prudence, but not (as the Epicureans suppose) morality. On the other hand, the consciousness of morality is not (as the Stoics teach) sufficient for happiness; for happiness, as the state of a rational being in the world, with whom in the whole of his existence things go according to his wish and will, depends on the agreement of nature with the whole end of man's being, and with the essential determining ground of his will; but man, the acting, rational being in the world, is, as a dependent being, not through his will the cause of nature, and cannot by his own agency bring it into the required harmony with his own moral nature. Nevertheless, in the practical work of the reason such a connection is postulated as necessary: we are bound to seek to further that harmony between virtue, which is the highest good (*supremum bonum*), and happiness, which is the indispensable condition of the realization of perfect good (*summum bonum*, in the sense of *bonum consummatum*, or *bonum perfectissimum*). Hence we must postulate also the existence of a cause of the whole realm of nature distinct from nature, and which, by exerting a causality in harmony with the spirit of perfect morality, hence through intelligence and will, shall be able to effectuate the exact agreement of happiness with morality; in other words, we must postulate the existence of God.

The assumption of the existence of a supreme intelligence is, in so far as the theoretical reason alone is concerned, a mere hypothesis. But for the pure practical reason it is a belief, and since pure reason is its only source, it is a belief of the pure reason.

The work entitled *Religion within the Limits of Mere Reason* contains Kant's exposition of rational belief in its relations to the faith of the church. (In this work Kant gives too exclusive recognition to the moral side of the subject, placing in the background the æsthetic and intellectual needs peculiar to man; but he emphasizes forcibly the various moral relations in all their purity, although not without exaggerating the opposition between nature and freedom, inclination and duty.) This work is in four parts,

treating (1) of the indwelling of an evil principle side by side with the good one in human nature, or of the radical evil in human nature; (2) of the contest between the good and evil principles for the control of man; (3) of the victory of the good principle over the evil one, and of the foundation of a kingdom of God on the earth; (4) of true and false religious service under the rule of the good principle, or of religion and priestcraft. Kant finds in human nature a propensity to reverse the moral order of the motives to action, man being inclined, although accepting the moral law together with that of self-love among his maxims, to make the motive of self-love and its inclinations a condition of his obedience to the moral law. This propensity, says Kant, since its origin must be sought in the last resort in an unrestrained freedom, is morally bad, and this badness or evil is radical, because it corrupts the source of all maxims. (With this conception of the source of immorality in the individual may be compared Kant's historico-philosophical explanation of immorality as resulting from the conflict between nature and culture, as given in his essay on the *Conjectural Beginning of the History of Man* (1786), in Rosenkranz and Schubert's edition of his Works, VII., 1, pp. 363–383, where, p. 374 seq., he cites, as an example of the conflict between humanity striving to realize its moral destiny, and yet continuing to follow the laws implanted in human nature with reference to its rude and animal state, the discrepancy between the period of physical maturity and that of civil independence, the intervening space of time being one which in a state of nature does not exist, but which, as things now are, is generally filled up with vices and their consequences, in the varied forms of human misery. In themselves, says Kant in this work, the natural faculties and propensities are good, but since they were intended to meet the wants of man in his natural state alone, they suffer from the advance of culture, and themselves do injury to the latter until nature is reproduced in perfect art, in which consummation the ideal of culture consists.) The good principle is humanity (the rational world in general) in its complete moral perfection, of which, as the principal condition of happiness, happiness is, in the will of the Supreme Being, the immediate consequence. Man thus conceived—and only thus is he well-pleasing to God—may be figuratively represented as the Son of God; in this sense Kant applies to him the predicates, which in the Scriptures and in the teachings of the church are given to Christ. (Cf. L. Paul, as above cited.) In practical faith on this Son of God man may hope to become well-pleasing to God and so to attain to blessedness, or, in other words, he is not an unworthy object of the divine complacency who is conscious of such a moral disposition that he can believe, with a well-grounded confidence in himself, that, if subjected to temptations and sufferings like those which (in the Gospel of Christ) are made the touch-stone of the ideal of humanity, he would remain unalterably loyal to that ideal, faithfully following it as his model and retaining its likeness. This ideal is to be sought only in the reason. No example taken from external experience is adequate to represent it, since experience does not disclose the inward character, even internal experience not being sufficient to enable us to penetrate fully the depths of our own hearts. Still if external experience —in so far as this can be demanded of it—furnishes us with an example of a man well-pleasing to God, this example may be set before us for our imitation. An ethical society, subject to divine moral legislation, is a church. The invisible church is merely the idea of the union of all the just under the divine moral government of the world, and is the archetype of all churches humanly established. The visible church is the actual union of men in a whole which accords with this archetype. The constitution of every church is founded on some historical belief (in a revelation); it is owing to the weakness of human nature that no society can be founded on the basis of pure religious faith alone. Mock service and priestcraft subsist where the statutory element prevails; the gradual transition from ecclesiastical faith to the sole supremacy of purely religious faith is the approach of the kingdom of God.

The doctrine of Legal and Moral Duties is developed by Kant in the *Metaphysical Principles of Law and Morals*. The principle of Legal Right is, that the freedom of every man should be limited by the conditions under which his freedom can consist with the freedom of every other man under a general law. The rightful State and the jural relations of States with each other constitute the end of historical development. The Moral Duties relate to ends, the pursuit of which may be a universal law for all. Such ends are: one's own perfection and others' happiness; from the former arise our duties to ourselves, and from the latter our duties to others. A "perfect duty" to ourselves is that of obedience to the law prohibiting self-murder; an "imperfect duty" is obedience to the command which forbids slothfulness in the use of our talents. Among our duties to others, abstinence from falsehood and deceit is a "perfect duty," and positive care for others is an "imperfect duty." The furtherance of our own happiness is a matter of inclination, hence not of duty; but the furtherance of the perfection of others is a duty for others only, since they only can fulfil it.*

§ 124. The *Critiques* of the pure speculative reason and of the practical reason are followed, in Kant's system, by the *Critique of the Faculty of Judgment*, which serves as a means of connecting the theoretical and practical parts of philosophy in one whole. Kant defines the judging faculty in general as the faculty by which the particular is conceived as contained under the universal. When the universal (the rule, the principle, the law) is given, the judging faculty, subsuming the particular under the universal, becomes "determinative;" but when the particular is given, for which it must find the universal, it is "reflective." The reflective judgment needs a principle for its guidance, in order to rise from the particular in nature to the universal. The universal laws of nature have, according to the *Critique of the Pure Reason*, their origin in our understanding, which prescribes them to nature; but the particular laws of nature are empirical, and hence, to the view of our understandings, accidental; and yet, in order to be laws, they must be viewed as following with necessity from some principle of unity in multiplicity, although that principle may be un-

* This latter statement involves unmistakably an exaggeration of the conception of the moral independence of the individual, and contains only the truth that progress toward personal perfection is only possible through the personal co-operation of the individual. It has been objected, and not without reason, to Kant's doctrine of legal right that it gives too exclusive prominence to the conception of freedom, since freedom constitutes only one of the elements of legal order; Kant, say his critics, represents legal right, which regulates the external order of social life, as the source of an order of unsociality. The legal order of society is to be understood from its relation to the whole ethical work of humanity. Kant's separation of the form of legal right from its ethical end is, like his similar separation of substance from form in other fields of inquiry, relatively justified, as opposed to the naïve confusion of these elements, which is not unfrequently observed, but it does not disclose to us a truly satisfying comprehension of the general subject.

known to us. The principle of the reflective judgment is this: that particular, empirical laws, in so far as they are undetermined by universal laws, must be viewed as containing that unity which they would contain if they had been given by some intelligence—other, it may be, than our own—with express reference to our cognitive faculties, in order to render possible a system of experience according to particular natural laws. In the unity in multiplicity, manifest in her empirical laws, lies the adaptation of nature to ends, which, however, is not to be ascribed to the products of nature themselves, but is an *à priori* conception, having its origin solely in the reflective judgment. In virtue of this adaptation, the uniformity of nature, or natural law, is compatible with the possibility of ends to be accomplished in it by beings working according to the laws of freedom. The conception of the oneness of that supra-sensible element which underlies nature, with that which is practically implied in the conception of freedom, renders possible the transition from purely theoretical to purely practical philosophy.

The reflective judgment may be either æsthetic or teleological; the former has to do with subjective or formal, the latter with objective or material adaptation. In both aspects the conception of ends (final causes) is only a regulative, not a constitutive principle.

The Beautiful is that which, through the harmony of its form with the human faculty of knowledge, awakens a disinterested, universal, and necessary satisfaction. The Sublime is the absolutely great, which calls forth in us the idea of the infinite, and by its antagonism with the interest of the senses produces an immediate satisfaction.

The teleological judgment considers organic nature in the light of the adaptations immanent in it. What the law of morality is for intelligible beings, that, for merely natural existences, is the organic end. The possibility of mechanical, as well as of teleological explanations of nature, is founded in the circumstance, that natural objects may be regarded partly as objects for the senses, and partly for the reason. An intuitive understanding—which man, however, does not possess—may possibly perceive that mechanical and final causes are identical.

Kant's doctrines concerning the beautiful and sublime were further developed by Schiller in his æsthetic writings, and next to him by Schelling and others; they were opposed by Herder in his *Kalligone;* cf., in particular, Vischer's *Aesthetik*, Zimmermann's *Gesch. der Aesthetik*, Lotze's *Gesch. der Aesthetik in Deutschland*, and Ludw. Friedländer's article on *Kant in seinem Verhältniss zur Kunst und schönen Natur*, in the *Preuss. Jahbr.*, xx. 2, August, 1867, pp. 113–128. The Kantian Teleology exercised a material influence especially on the philosophies of Schelling and Hegel; cf. Rosenkranz, in his *Gesch. der Kantischen Philosophie*, and the works of Michelet, Erdmann, Kuno Fischer, and others.

The *Critique of the Faculty of Judgment* forms in numerous ways a connecting link between the Critiques of the Pure and the Practical Reason. The *Crit. of the Pure Reason* concedes only constitutive principles to the understanding, while *the Crit. of the Practical Reason* recognizes ideas of the reason as of controlling authority for human action; between the understanding and the reason the faculty of judging forms the middle term. The feeling of pleasure and dislike is psychologically intermediate between cognition and desire, and it is to this feeling, to which it prescribes rules *à priori*, that the judging faculty has respect in its æsthetic use. Between the province of nature, or the sensuous, and that of freedom, or the supra-sensuous, there is fixed, according to Kant, an immeasurable cleft, so that from the former to the latter no passage is possible in thought through the theoretical employment of the reason—just as if there were two worlds, of which the first could have no influence on the second. Nevertheless, the latter is conceived as having an influence on the former, or, in other words, freedom is conceived as having for its mission the realization in the sensible world of the end indicated by the laws of freedom. Consequently nature must be so conceived that it may be possible for ends to be realized in it according to the laws of freedom. The judging faculty, through the conception of adaptations in nature, mediates the transition from the province of the conception of nature to that of the conception of freedom.

Adaptation to ends, in an object given in experience, can be conceived as susceptible of a purely *subjective* explanation—as being the agreement of the object, in the initial act of apprehension and antecedently to the formation of any conception of it, with the requirements of the cognitive faculty, to the end that intuition (perception) may be combined with conceptions so as to form cognition—or of an *objective* explanation—as the agreement of the form of the object with the conditions of the possibility of the thing itself, conformably to a conception of it, which goes before and contains the ground or reason of this form. The idea of adaptation, in the former sense, is founded on the immediate pleasure we take in the form of the object, in merely reflecting upon it; in the second sense it has to do, not with a feeling of pleasure derived from the contemplation of things, but with the understanding in its judgment of things, since in this case the form of the object is considered, not with reference to its adaptation to the cognitive faculties of the Subject in apprehending it, but with reference to a distinct cognition of the object under a given conception. By attributing to nature a regard, so to speak, for our cognitive faculties, as if she were moved by a final cause, we can view natural beauty as the concrete manifestation (sensible illustration) of the conception of formal or merely subjective adaptation, while the ends or final causes visible in nature are regarded as the like manifestation of the conception of real or objective adaptation; the former we judge æsthetically, by means of the feeling of pleasure, through taste; the latter logically, with reference to conceptions, through the understanding and reason. Hence the division of the *Critique of the Faculty of Judgment* into the Critique of the *æsthetic* and the Critique of the *teleological* judgment.

The faculty of judging of the beautiful is Taste. In order to distinguish whether anything is beautiful or not, we do not bring our notion of it, through the understanding, into relation with the object, with a view to knowledge, but through the faculty of imagination (combined, perhaps, with the understanding) in relation to the percipient subject, and the feeling of pleasure or aversion which it excites in the latter; judgments of taste are, therefore, not logical, but æsthetic.

The satisfaction produced by the beautiful is, in quality, disinterested. By interest in an object is meant the satisfaction which accompanies the thought of its existence.

Interest always involves also a relation to the appetitive faculty, either as its determining ground, or at least as necessarily connected with such ground. The satisfaction we take in the agreeable and good is combined with interest. That is agreeable which pleases the senses in sensation. That is good which pleases us simply as rational beings, by its mere conception. That is beautiful which produces a sentiment of pleasure disconnected from all interest, or the idea of which is accompanied in us with satisfaction, however indifferent we may be in reference to the existence of the object of the idea. The agreeable contents; the beautiful pleases. The good is prized (an objective worth is attributed to it). The agreeable exists even for irrational animals, but beauty only for men—*i. e.*, for beings at once animal and yet rational in their nature—while the good is such for all intelligent beings, of whatever order. As well the satisfaction of the senses as that of the reason compels our approval, but that derived through taste from the beautiful is an unconstrained pleasure. The satisfaction produced by the agreeable depends on inclination, that produced by the beautiful on favor, and that produced by the good on respect.*

The satisfaction derived from the beautiful is, in quantity, universal. Since it is disinterested and free, it cannot, like our satisfaction in the agreeable, rest on conditions peculiar to the individual, but only on that which each can suppose as existing in all others. But the universal validity of an æsthetic judgment cannot (as in the case of ethical judgments) be derived from conceptions; there is hence joined with it a claim, not to objective, but only to subjective universality.

With regard to the relation of the ends which are brought into consideration in judgments of taste, beauty is the form of adaptation in an object, as perceived without any accompanying conception of an end to which it is adapted. A flower, *e. g.*, a tulip, is held to be beautiful because our perception of it is found to be accompanied by a certain sense of adaptation, to which yet our æsthetic judgment is unable to assign any particular end. Kant distinguishes between *free* and *adherent* beauty. Free beauty (*pulchritudo vaga*) pre-supposes no conception of that which the object ought to be; merely adherent beauty (*pulchritudo adhærens*) implies both such a conception and also the perfection of the object as determined by comparison with the conception. The satisfaction taken in variety of means directed to some intrinsic end is intellectual, based on a logical conception. The pleasure awakened by beauty pre-supposes no such conception, but is immediately joined with the act of mental representation, in which the beautiful object is apprehended (not by which it is conceived). Is the object pronounced beautiful on the condition of its agreeing with a definite conception—in other words, is the judgment of the taste respecting the beauty of the object limited by the judgment of the reason concerning its perfection or inner adaptation—then is it no longer a free and pure judgment of taste; only in judging of free beauty is the judgment of taste pure.

As regards modality, the beautiful has a necessary relation to satisfaction. This necessity is not theoretical and objective, nor is it practical; it can only be called—as being that kind of necessity which is conceived in an æsthetic judgment—*exemplary*, *i. e.*, it is the necessity of the assent of all to a judgment which is viewed as an example of a universal rule, which rule can yet not be formulated. The general æsthetic sense, as resulting from the free play of our cognitive powers, is an ideal norm, which being pre-supposed, any judgment that agrees with it, as also the æsthetic satisfaction in an object which is expressed in the judgment, may justly be regarded as a judgment in which all would agree, and a satisfaction which all, in like circumstances, must feel, because this norm, although only subjective, is subjectively universal, and is a necessary Idea for every man.

* In representing the beautiful as opposed to the agreeable, Kant recognizes in the province of æsthetics, as in that of speculative and practical philosophy (see above, pp. 161 seq., 182 seq.), not a rising gradation from the sensible to the intellectual, but, rather, a dualistic separation of them, and hence reckons, e. g., in the theory of painting, color as a source of more inæsthetic charm, and only drawing as belonging to the province of the beautiful, which separation is nevertheless indefensible; cf. Friedländer, in the Art. above cited (p. 188).

The beautiful pleases and presents a claim to the assent of all, as a symbol of the morally Good, and taste is therefore, at bottom, a faculty which judges of ethical ideas in their sensible manifestation.

That is sublime, which by its resistance to the interest of the senses gives an immediate pleasure. A natural object may be fitted to represent sublimity, but cannot properly be called sublime, although many natural objects may be termed beautiful; for the sublime, properly so called, can be contained in no sensible form, being confined solely to Ideas of the reason, which, although insusceptible of adequate embodiment, are yet by this very inadequateness, which *is* susceptible of sensible representation, excited and called into the mind. It is not, for example, so much the storm-lashed ocean that is sublime, as rather the feeling which the sight of it naturally excites in the mind, inciting the soul to quit in thought the bounds of sense, and to occupy itself with Ideas of higher adaptation. For the beautiful in nature we must seek for a ground without us, but for the sublime only within us and in the nature of thought, which introduces sublimity into the idea of nature. The pleasure produced by the sublime, like that produced by the beautiful, must be in quantity universal, and in quality disinterested; in relation it must represent subjective adaptation, and in modality it must present this adaptation as necessary.

Kant distinguishes between two classes of the sublime, the mathematically, and the dynamically sublime. The sublime brings with it, in all instances, a certain motion of the mind, accompanying the act of the judgment in regard to the sublime object, while the gratification of taste by the beautiful presupposes and maintains in the mind a state of quiet contemplation. But this motion, since it is to be judged as having subjective adaptation or a purpose, is referred by the imagination either to the cognitive or to the appetitive faculty; in the first case the disposition of the imagination is mathematical, connected with the estimation of magnitudes, in the second it is dynamic, resulting from the comparison of forces; but in both cases the same character is attributed to the object which calls forth these dispositions. As, in the progress of our comparison of magnitudes—when we advance, for example, from the height of a man to that of a mountain, from that to the diameter of the earth, to the diameter of the earth's orbit, and then to the diameters of the milky way and of the systems of nebulæ—we arrive at ever greater unities, everything that is great in nature appears in turn small, while, properly speaking, it is only our imagination in its entire illimitation, and with it nature, that appear to vanish in comparison with the Idea of the reason. The mathematically sublime, therefore, on which the imagination expends in vain all its power of comprehension, is great beyond every sensible standard of measurement. The sentiment of the sublime involves a feeling of dissatisfaction on account of the inadequateness of the imagination as employed in the æsthetic estimation of magnitudes, and yet at the same time a feeling of pleasure consequent upon finding every sensible standard of measurement incommensurate with the Ideas of the reason. Nature is dynamically sublime for the æsthetic judgment when viewed as a power, which yet has no power over us. The power of nature, although fearful to us as sensuous beings, yet

calls into activity a force in us which does not belong to nature, and which enables us to look upon all that pertains to our life in the senses, and for which we are careful and troubled, as trivial, and hence to regard the power of nature as not being a power before which we must yield, if it were a question of the assertion or renunciation of our highest beliefs or principles; and thus the mind is made conscious of the exaltation of its destiny as independent of nature. The sublime, in the sense of the absolutely great, exists only in the individual's own destiny.

Although immediate pleasure in natural beauty presupposes and cultivates a certain freedom of thought, *i. e.*, a non-dependence for satisfaction on the mere gratification of the senses, yet in it the action of freedom has rather the appearance of *play* than of legal *business*. This latter character is the genuine mark of morality, for the existence of which it is necessary that reason should use violence against sense. In æsthetic judgments concerning the sublime this violence is represented as being exercised by the imagination as the instrument of reason, and hence the mental tendency which is connected with a feeling for the sublime in nature is similar to the moral disposition.

Judgments of taste are not founded on definite conceptions. Their basis is, however, a conception, although an indefinite one, namely, the conception of a supra-sensible substratum of phenomena.

Art is free production. Mechanical art executes those actions, which are prescribed by our knowledge of a possible object, as necessary to the realization of the object. Æsthetic art has immediately in view the feeling of pleasure, either as mere sensation (agreeable art) or as pleasure in the beautiful and implying judgment (fine art). While the product of fine art must appear as a work of human freedom, it must also appear as free from the constraint of arbitrary rules, as if it were a product of mere nature. Genius is that talent (endowment of nature) which gives rules to art. Fine art is the art of genius.

Æsthetic adaptation is subjective and formal. There is an objective and intellectual adaptation which is merely formal. It is illustrated in the fitness of geometrical figures for the solution of numerous problems by a single principle. Reason recognizes the figure as adequate to the generation of various intended forms. Experience conducts our judgment to the conception of an objective and material adaptation, *i. e.*, to the conception of an end of nature, when we have occasion to judge of a relation of cause and effect, whose conformity to law we find ourselves unable to comprehend, except as we regard the idea of the effect as underlying the causality of the cause itself, and so constituting a condition of the possibility of the effect. We judge nature teleologically when we ascribe objective causality to the conception of an object, as though that conception were itself a part of nature, or, rather, when we conceive the possibility of objects as depending on a causality analogous to that which we observe in ourselves, and consequently nature as producing technical or artistic results by her own power. If we were to fill nature with causes that work in view of intended results, we should be providing Teleology not merely with a regulative principle, fitted, as being a principle to which nature in her particular laws can be conceived as subject, to guide the mind simply in judging of phenomena, but also with a constitutive principle for the derivation of the products of nature from their causes. But then the conception of a final cause of nature would belong no longer to the reflective but to the determinative judgment, or rather, in reality, it would not in any sense belong peculiarly to the judging faculty, but, as a conception of the reason, would introduce into natural philosophy a new causality, borrowed only from the analogy of ourselves and ascribed to other existences, to which yet we decline to attribute a nature like our own.

The adaptation of nature is partly internal and partly external or relative, according as we regard the effect either as itself an end or as a means to be employed by other beings for the accomplishment of their ends; the latter kind of adaptation is termed usefulness (for man) or fitness (for all other creatures). That in which relative adaptation is discoverable can be viewed as constituting an (external) end of nature only on condition that the existence of that, for which it is immediately or remotely advantageous, be itself an independent end of nature. The ends of nature are organized beings, *i. e.*, products of nature, in which all parts can be conceived not only as existing for their own sake and for the sake of the whole, but also as mutually producing each other—hence products in which everything is end, and also, reciprocally, means. An organized being is therefore not a mere machine, possessing, like the machine, only moving power. It possesses in itself formative power, which is also capable of being communicated to portions of matter not previously possessing it, and is, therefore, a self-transmitting formative force, incapable of being explained by the faculty of motion alone (*i. e.*, mechanically).

In the to us unknown inner ground or reality of nature it is possible that the physico-mechanical and final relations of the same things may be united under one and the same principle; but our reason has not the power to reduce them to such a principle. Such is the constitution of our understanding, that we can only regard nature as a real whole when we view it as the effect of the concurrent moving forces of its parts. An intuitive understanding might represent to itself the possibility of the parts, in respect of their nature and union, as founded in the whole. But in the discursive mode of cognition, to which our understanding is confined, it would be a contradiction to conceive the whole as furnishing the ground of the possibility of the connection of the parts. The discursive understanding can only think of the *idea* of a whole as forming the ground of the possibility of the form of that whole and of the necessary connection of its parts; it can, therefore, only view the whole as a product, the idea of which is the cause of its possibility—*i. e.*, as an end. Hence it is but a mere result of the constitution of our understanding, if we look upon products of nature in the light of another kind of causality than the mechanical causality of the natural laws of matter, viz.: in the light of the teleological causality of final causes. We can neither assert: All production of material things is *possible* by merely mechanical laws, nor: In some cases the production of material things is *not possible* by merely mechanical laws. On the contrary, both principles can and must subsist side by side as regulative principles, thus: All production of material things and of their forms must *be judged* as being possible by merely mechanical laws, and: The *judgment* of certain products of the material realm of nature requires an altogether different law of causality, namely, that of final causes. I am to inquire after the mechanism of nature everywhere, so far as I may be able, and to think of everything which belongs to nature as being also connected with it according to mechanical laws; but this does not exclude my power and right to reflect upon certain natural forms, and, on the occasion of them, even upon all nature, under the guidance of the principle of final causes.

In the analogy of the forms of the different classes of organisms Kant finds (in agreement with the subsequent speculations of Lamarck and Darwin) ground for the supposition that they are really related to each other through generation from a common original germ. The hypothesis that beings specifically different have sprung from each other—*e. g.*, from water-animals, animals inhabiting marshes, and from these, after many generations, land-animals—he terms "a hazardous fancy of the reason." He rejoices in the ray of hope, weak though it be, that here something may be accomplished with the

principle of the mechanism of nature, without which no science of nature is possible. But he calls attention to the fact, that even on this theory the form of adaptation in the products of the animal and vegetable kingdoms requires, for the explanation of its possibility, that we suppose the common original and source of all these organisms to have been endowed with an organization expressly adapted to their development. The question of the origin of the organic world has, therefore, adds Kant, only been removed a degree further back, but the generation of that world has not been proved independent of the condition of final causes. We are obliged by the nature of our cognitive faculty to conceive the mechanism of nature as being, so to speak, an instrument subservient to the ends of a designing and efficient cause. How two entirely different kinds of causality can be combined; how nature, with her universal conformity to law, can consist with the reality of an idea which limits her to a particular form, for which no reason whatever can be found in nature, considered by herself alone, our reason does not comprehend; the explanation lies concealed in the supra-sensible substratum of nature, of which we can affirm nothing except that it is the essence *per se*, of which we know only the phenomenal manifestations.*

§ 125. The Kantian doctrine was combated philosophically from the Lockian, Leibnitzo-Wolffian, and skeptical stand-points. Of special influence on the progressing development of speculation were the arguments for skepticism urged by Gottlob Ernst Schulze (Ænesidemus). Of the numerous partisans of the Kantian philosophy the following were the most important: Johannes Schultz, the earliest expositor of the *Critique of the Pure Reason;* Karl Leonhard Reinhold, the enthusiastic and successful apostle of the new doctrine; and Friedrich Schiller, the poet and philosopher. Through Schiller's ardent and lofty exposition of Kant's ethical and æsthetic principles the latter were made the common possession of the educated classes, while through his recognition of the possibility in morality and art of reconciling the antithesis of nature and mind, reality and ideality, they received a material additional development. Endowed with a many-sided susceptibility and with critical insight, but having neither the ability nor the inclination to frame a system of his own, Friedrich Heinrich Jacobi found in Spinozism the last consequence of all philosophical thought, affirming, however, that this consequence, through its opposition to the interest of man as a feeling being, compelled the recognition of faith as a direct conviction of God's existence and of the reality of divine things. Jacobi pointed out how Kant's

* Out of the Kantian idea of the intuitive understanding, which recognizes in the supra-sensible substratum of phenomenal nature the ground of the connection of the mechanism of nature with design, and comprehends the whole as the ground of the possibility of the combination of the parts, was subsequently developed the Schellingian philosophy of nature, which, however, since it did not hold co-existence and distinction in time and space to be merely subjective, was obliged essentially to modify the idea in question. In a certain sense, Schopenhauer's doctrine agrees with this of Kant.

philosophy destroyed itself by an intrinsic contradiction, in that it was impossible to find one's way into the *Critique of the Reason* without the realistic postulate of a causal nexus uniting the thinking subject with the realm of (transcendental) objectivity, but that then it was impossible to remain in this *Critique*. Akin to his philosophical tendency was the more positively Christian tendency of his friend Hamann. By a blending of Jacobian conceptions with the philosophy of Kant, Jacob Fries developed the doctrine that the sensible is the object of knowledge, the supra-sensible the object of faith (rational faith), and the manifestation or revelation of the supra-sensible in the sensible the object of presentiment. Fries attempted to establish the *Critique of the Reason* on a psychological basis. The interpretation of Kant's doctrine proposed by Jacob Sigismund Beck, and intended to dispense with Kant's "things-in-themselves," was akin to Fichte's doctrine of the Ego, while Christoph Gottfried Bardili's attempted development of a rational Realism bore a certain analogy to the speculation of Schelling and Hegel.

Concerning the followers and opponents of Kant till near the end of the eighteenth century W. L. G. Freiherr von Eberstein treats in the second volume of his *Versuch einer Geschichte der Logik und Metaphysik bei den Deutschen von Leibnitz an*, Halle, 1799. Of the subsequent history of Kantism treat Rosenkranz, in Vol. XII. of his complete edition of Kant's Works (Leips., 1840), and Erdmann, in his above-cited *Geschichte der neueren Philosophie* (III., 1, Leipsic, 1848). Cf. Kuno Fischer, *Die beiden Kantischen Schulen in Jena*, in the *Deutsche Vierteljahrsschr.*, Vol. 25, 1862, pp. 348–366; the same published separately, Stuttg., 1862.

Among the opponents of Kant from the Lockian stand-point may be mentioned especially Christian Gottlieb Selle and Adam Weishaupt, and, as partly occupying the same stand-point, the eclectics Feder, G. A. Tittel, and Tiedemann, the historian of philosophy, who in his *Theaetet* (Frankf.-on-the-M., 1794) defended the doctrine of the objective and real validity of human knowledge; but the arguments of those last named contain also Leibnitzian ideas. Among the most independent opponents of the Kantian Criticism was Garve, who, however, at first confounded Kant's doctrine with the exclusive Idealism of Berkeley; he afterwards (in connection with his translation of Aristotle's *Ethics*) subjected the Kantian moral philosophy to a searching examination, which is still very worthy of attention. Of the Leibnitzians among the opponents of Kant, the two following are those most worthy of mention: Eberhard, against whom Kant himself (in his essay "*Ueber eine Entdeckung*," etc.) defended himself, and Joh. Christoph Schwab, the author of a prize-essay, crowned by the Berlin Academy of Sciences, on the question: "What advance has been made in Metaphysics in Germany since the times of Leibnitz and Wolff?"—published, together with the prize-essays of the Kantians Karl Leonard Reinhold and Johann Heinrich Abicht, by the Acad. of Sciences, Berlin, 1796; the above-named historian, Eberstein, also argues against Kantism from the Leibnitzo-Wolffian stand-point. Herder's *Metakritik* (*Verstand und Erfahrung, eine Metakritik zur Kritik der reinen Vernunft*, Leipsic, 1799), owing to the bitterness of its tone, received less attention than its contents merited. Gottlob Ernst Schulze (1761–1833), the skeptic, in his work entitled, *Aenesidemus oder über die*

Fundamente der von Reinhold gelieferten Elementarphilosophie nebst einer Vertheidigung des Skepticismus gegen die Anmassungen der Vernunftkritik (1792), made the doctrines of Kant and Reinhold the object of an acute criticism; his strongest argument is identical with that previously advanced by Fr. H. Jacobi, namely, that the conception of affection—of things-in-themselves as affecting or acting on our senses—which is indispensable for the Kantian system, is yet according to this same system impossible. Subsequently G. E. Schulze approached constantly nearer in his doctrine to that of Jacobi.

Of the followers of Kant and representatives of his doctrine, Johannes Schultz,* Court-Preacher and Professor of Mathematics at Königsberg, published an Exposition of Kant's *Critique* (*Erläuterungen über des Herrn Prof. Kant Kritik der reinen Vernunft*, Königsberg, 1784) which had Kant's full approval, and subsequently an Examination of the *Critique* (*Prüfung der Kantischen Kritik der reinen Vernunft*, Königsberg, 1789-92). The Exposition has been translated into French by Tissot (Paris, 1865). In Ludwig Heinrich Jakob's "*Prüfung der Mendelssohn'schen Morgenstunden*" (Leipsic, 1786) Mendelssohn's theoretical proofs of God's existence are disputed from the standpoint of the Kantian Criticism. Karl Christian Erhard Schmid (1761-1812), who subsequently wrote a series of didactic works, published in the year 1786 a compendium of the *Critique of the Pure Reason*, together with a dictionary of the Kantian terminology (*Grundriss der Kritik der reinen Vernunft nebst einem Wörterbuch zum leichteren Gebrauch der Kantischen Schriften*); in the later editions of the *Dictionary* Schmid defends the Kantian doctrine against Jacobi's objection that the idea of things-in-themselves, as affecting our senses, was, on Kant's theory, impossible. Schmid says that the affection of our senses, in the case in hand, has no relation to "space or place;" this explanation is indeed correct, as far as it goes; but time and causality should also be placed in the same category, as regards the question at issue, with space, which being done, the conception of "affection" is rendered wholly impossible. Jacobi's objection remained thus unrefuted. Through Karl Leonhard Reinhold's (born 1758, died 1823; on him see the work by his son, Ernst R., entitled, *Karl Leonh. R.'s Lehren und litterarisches Wirken*, Jena, 1825; cf. Rud. Reicke, *De explic., qua Reinholdus gravissimum in Kantii critica rationis puræ locum epistolis suis illustraverit* [Dissert.], Königsberg, 1856) popular "Letters concerning Kant's Philosophy" (*Briefe über die Kantische Philosophie*, in the *Deutsch. Mercur*, 1786-87, new and enlarged edition, Leipsic, 1790-92) the Critical Philosophy found entrance to wider circles. Reinhold's call to a Professorship of Philosophy in Jena (1787) made Jena a central point for the study of Kant's philosophy; the *Jena. Allg. Litteraturzeitung* (founded in 1785, edited by Schütz and Hufeland) soon became the most influential organ of Kantiam. In his Attempt at a New Theory of the Faculty of Human Thought (*Versuch einer neuen Theorie des menschlichen Vorstellungsvermögens*), published in 1789 (and to which, as a preface, the article published shortly before in the *Deutscher Mercur*, "*On the Fortunes of the Kantian Philosophy up to the Present Time*," was prefixed), Reinhold attempted, by an examination of the conception of mental representation, as

* The name of this Kantian is variously written: Schultz, Schulz, and Schulze. On the title-page of the "*Erläuterungen*" we read Schulze. He himself made use of various orthographies. He signs himself J. Schultz in a letter (in the possession of Reicke) to Borowski, dated May 10th, 1792, in which he expresses his thanks for communications respecting the strife about Fichte's atheism, and wishes, in Fichte's behalf, that "our God, in whom both of us are determined henceforth alone to trust, may be pleased to assist him, for his God is good for nothing." In the "Album" of the University at Königsberg students were entered by him in October, 1792, as matriculated "*rectore academiæ Johanne Ernesto Schulz, theol. doctore et prof. ord. etc.*"

implying a representing Subject and a represented Object, to secure for the Kantian doctrine a new basis, which basis was, however, of insufficient solidity, and was afterwards given up by Reinhold himself. Friedr. Bouterwek (1766-1828; *Idee einer Apodiktik*, Halle, 1799; *Aesthetik*, Leips., 1806, etc.; *Gesch. der neueren Poesie und Beredtsamkeit*, Gött., 1801-19) is chiefly of historical importance as a writer in the fields of æsthetics, and, more particularly, of the history of literature. Heydenreich, Tieftrunk, Wegscheider, and others wrought in the department of religious philosophy; Abicht, Heydenreich, Hoffbauer, Krug, Maass, and others, in the department of the philosophy of law; Kiesewetter, Krug, Hoffbauer, Fries, Maass, and others, in that of logic; Maass and Fries, in that of psychology; and Tennemann and Buhle especially in that of the history of philosophy. Wilhelm Traugott Krug (1770-1842) contributed especially to the popularization of the Kantian philosophy. From 1805 to 1809 he taught in Königsberg, and afterwards in Leipsic. His Dictionary of the Philos. Sciences (*Allgemeines Handwörterbuch*, etc.) was published at Leipsic in 1827 seq.; 2d ed. 1832 seq. (His Groundwork of a Theory of the Feelings [*Grundlage zu einer Theorie*, etc.] is reviewed by Beneke in the *Wiener Jahrb.*, XXXII., p. 127, and his Handbook of Philosophy [*Handbuch der Philosophie*] by Herbart in the *Jen. Litteraturzeitung*, 1822, Nos. 27 and 28.) Salomon Maimon attempted, in his Essay on the Transcendental Philosophy (*Versuch*, etc., 1790), Philosophical Dictionary (*Philos. Wörterbuch*, 1791), Controversies in Philosophy (*Streifereien im Gebiete der Philosophie*, 1793), Attempt at a New Logic (*Versuch einer*, etc., 1794), Critical Inquiries respecting the Human Mind (*Krit. Untersuchungen über den menschl. Geist*), etc., to effect, by the introduction of Skeptical elements, an improvement of the Critical doctrine, an improvement disowned by Kant, but highly esteemed by Fichte. He rejected the Kantian conception of the "thing-in-itself." (Cf. M.'s Autobiography, Berlin, 1792; S. Jos. Wolff's *Maimoniana*, 1813.)

The most gifted of all the Kantians was Friedrich Schiller, the poet, Nov. 11, 1759-May 9, 1805. (On his philosophy compare Wilh. Hemsen, *Schillers Ansichten über Schönheit und Kunst im Zusammenhange gewürdigt, Inaug.-Diss.*, Göttingen, 1854; Kuno Fischer, *Schiller als Philosoph*, Frankfort-on-the-M., 1858; Drobisch, *Ueber die Stellung Schillers zur Kantischen Ethik*, in the *Ber. über die Verh. der K. Sächs. Ges. d. Wiss.*, Vol. XI., 1859, pp. 176-194; Rob. Zimmermann, *Schiller als Denker*, in the *Abh. der Böhm. Ges. d. Wiss.*, Vol. XI., Prague, 1859; cf. also his *Gesch. der Aesthetik*, Vienna, 1858, pp. 483-544; Karl Tomaschek, *Schiller und Kant*, Vienna, 1857, *Schiller in seinem Verhältniss zur Wissenschaft*, *ib.*, 1862; Carl Twesten, *Schiller in seinem Verh. z. Wiss.*, Berlin, 1863; A. Kuhn, *Schillers Geistesgang*, Berlin, 1863; cf. the works of Hoffmeister, Grün, Palleske, and other biographers of Schiller, and also Donzel, *Ueber den gegenwärtigen Zustand der Philosophie der Kunst*, and a number of discourses delivered at the Schiller-Centennial in 1859, the titles of which may be found in the *Bibliotheca Philologica* for 1859 and 1860, edited by Gustav Schmidt.) At an early age Schiller had already familiarized himself with philosophical writings, especially with those of English Moralists and of Rousseau; the philosophical instruction given by Jacob Friedr. von Abel, the eclectic, in the "*Karlsschule*" at Stuttgard, was based chiefly on the Leibnitzo-Wolffian doctrine. In his early work, the "Theosophy of Julius" (*Theosophie des Julius*), Schiller, adopting the optimism of Leibnitz, developed it into a doctrine approaching toward pantheism, but not so that we may assume him to have received the influence of Spinoza. The last of the "*Philosophical Letters*"—which manifests a Kantian influence—was written, not by Schiller, but by Körner (1788). In the year 1787 Schiller read in the Berlin Monthly Kant's essays on the

philosophy of history, from which he appropriated the idea that history is to be viewed teleologically, an idea which materially influenced the results of his historical labors. It was not until 1791 that Schiller commenced to study the great works of Kant, among which the *Critique of the Faculty of Judgment* was the first to receive his attention; at the same time his understanding of the Kantian doctrine was furthered by discussions with zealous disciples of Kant. The speculations of Fichte won a certain though relatively very slight influence over him, as early as the year 1794; the preface to the "*Bride of Messina*" contains suggestions of Schellingian ideas. Of Schiller's philosophical essays, in his Kantian period, the most important are "On Grace and Dignity" (*Ueber Anmuth und Würde*, written in 1793), in which moral grace, or the harmony between mind and nature, duty and inclination, is set forth as the complement of moral dignity, or of the elevation of the mind above nature (to this Kant replied in a Note to the second edition of his "*Religion within the Limits of the Mere Reason*"); "Letters on Æsthetic Culture" (*Briefe über die ästhetische Erziehung des Menschen*, written in 1793–1795), in which Schiller recommends æsthetic culture as the means best adapted to produce elevation of moral sentiment, and the essay on "Naïve and Sentimental Poetry" (*Ueber naive und sentiment. Dichtung*, 1795–1796), in which æsthetics is combined with philosophy of history, the conceptions of natural harmony, and of elevation to the ideal and recovered unity of the ideal with the real, and of mind and culture with nature, being employed in characterizing not only the different forms of poetry in general and of schools of poets (as illustrated in Goethe and Schiller themselves), but also the forms of culture peculiar to Hellenic antiquity and modern times, and, in particular, the differences between ancient and modern poetry.

Friedrich Heinrich Jacobi (born Jan. 25th, 1743, at Düsseldorf, died March 10th, 1819, at Munich), the philosopher of faith, sought to establish the authority of natural and direct faith in opposition to philosophic, system-making thought. He himself confesses: "Never was it my intention to set up a system for the school; my writings came forth out of my most interior life, they received a historical order, and I made them, in a certain sense, not of myself, not at will, but drawn on by a higher power which I could not resist." Of Jacobi's works—which appeared in a complete edition at Leipsic in 1812–25, and to which Jacobi's correspondence with Goethe and Bouterwek form a supplement—those most deserving of mention are the philosophical novels: "*Allwill's Briefsammlung*" and "*Woldemar*," in which, besides the theoretical problem of the knowledge of the external world, the moral question as to the relation of individual right and duty to the universal rule of morals is specially discussed; the work on the doctrine of Spinoza, in "*Letters to Moses Mendelssohn*" (Berlin, 1785), where Jacobi relates a conversation between himself and Lessing, in which the latter is represented as having confessed his leaning towards Spinozism (which confession, since Lessing, as his own works indubitably prove, always occupied substantially the Leibnitzian standpoint, can have referred only to single points in speculative theology, but was obviously understood by Jacobi in too wide a sense)—*David Hume über den Glauben, oder Idealismus und Realismus* (Breslau, 1787)—in which Jacobi also expresses his judgment of Kant's philosophy—"Open Letter to Fichte" (*Sendschreiben an Fichte*, Hamburg, 1799), the essay on the "Attempt of the Critical Philosophy to explain Reason" (*Ueber das Unternehmen des Kriticismus die Vernunft zu Verstande zu bringen*, in the third number of Reinhold's *Beiträge zur leichteren Uebersicht des Zustandes der Philosophie beim Anfange des* 19. *Jahrh.*, Hamb., 1802), and "Of Divine Things" (*Von den göttlichen Dingen*, Leipsic, 1811), which latter work was directed against Schelling, whom Jacobi charged with the hypocritical use of theistic and Christian

words in a pantheistic sense. (On Jacobi cf. Schlichtegroll, v. Weiller and Thiersch, *Jacobi's Leben und Wirken*, Munich, 1819; Kuhn, *Jacobi und die Philosophie seiner Zeit*, Mayence, 1834; C. Roessler, *De philosophandi ratione F. H. Jac.*, Jena, 1848; Ferd Deycks, *F. H. Jac. im Verhältniss zu seinen Zeitgenossen, besonders zu Goethe*, Frankf.-on-the-M., 1849; H. Fricker, *Die Philosophie des F. H. Jacobi*, Augsburg, 1854; F. Ueberweg, *Ueber F. H. J.*, in Gelzer's *Prot. Monatsbl.*, July, 1858; W. Wiegand, *Zur Erinnerung an den Denker F. H. J. u. s. Weltansicht, Progr.*, Worms, 1863; Chr. A. Thilo, *F. H. Jacobi's Ansichten von den göttl. Dingen*, in the *Zeitschr. für exacte Philos.*, Vol. VII., Leips., 1866, pp. 113–173; Eberhard Zirngiebl, *F. H. J.'s Leben, Dichten und Denken, ein Beitrag zur Gesch. der deutschen Litteratur u. Philosophie*, Vienna, 1867; cf. also the review of the latter work, by Rudolf Zoeppritz, in the *Gött. gel. Anz.* for June 5th, 1867, Art. 23, pp. 881–904; W. Mejer, *F. H. Jacobi's Briefe an Friedr. Bouterwek aus den Jahren* 1800–1819, Göttingen, 1868.) Jacobi considers Spinozism as the only consistent system of philosophy, but holds that it must be rejected, because it is in conflict with the imperative needs of the human spirit. All demonstration leads only to the world as a whole, not to an extra-mundane author of the world; for in demonstration the understanding can only pass from the conditioned to the conditioned, and not to the unconditioned. To demonstrate God's existence would be to point out a ground or cause of his existence, whereby God would be made a dependent being. (But here Jacobi leaves unconsidered the importance of the indirect proof, which may lead from the knowledge of effects to the knowledge of causes.) Near as this opinion of Jacobi stood to that of Kant, who conceded to the practical reason with its postulates the primacy over the theoretical reason, which, according to Kant, is unable to know any "things-in-themselves," yet Kant (in the Essay: "*Was heisst sich im Denken orientiren?*" *Werke*, Ros. and Schub.'s edition, Vol. I., p. 386 seq.) found ground for replying, that it was quite possible to believe that which the theoretical reason could neither prove nor disprove, but not that of which it was believed that she could prove the contrary; the critical philosophy and belief in God were compatible with each other, but Spinozism and belief in God were incompatible. Jacobi, on the other hand, was unable to assent to the Kantian demonstration of the limits of theoretical knowledge. He indicated clearly the dilemma which is fatal for the Kantian Criticism, namely, the affection of the senses, through which we receive the empirically given material of perception, must come either from phenomena or from things-in-themselves; but the former hypothesis is absurd, because phenomena, as Kant himself teaches, are only representations in the mind, and hence, if this hypothesis were correct, there must have been ideas before there were ideas; and the latter alternative (which Kant actually adopts and affirms, as well in the first as in the following editions of the *Crit. of the Pure Reason*, as also in the article against Eberhard, and elsewhere) contradicts the critical doctrine, that the relation of cause and effect exists only within the world of phenomena, and has no relation to things-in-themselves; the beginning and the subsequent part of the *Critique* destroy each other (*Jacobi über David Hume*, *Werke*, Vol. II., p. 301 seq.). Jacobi himself does not pretend to be able to demonstrate the existence of objects which affect us, but affirms that in the act of perception he is directly convinced of their existence. The objects of sensuous perception are, in his view, not mere phenomena, *i. e.*, representations combined with each other according to certain categories, but real, although finite and dependent, objects. It is only such objects that are known by the understanding, whose range Jacobi accordingly, in agreement with Kant, restricts to the sphere of possible experience, although not in the same sense as Kant. Jacobi likewise affirms, with Kant, that

the speculative reason, as the organ of demonstration, does not conduct beyond this same sphere. He criticises the empty formalism of the Kantian moral principle, claiming that to moral reflection should be added the immediate impulses of moral feeling, and that, in addition to the abstract rule, the particular circumstances should be considered, by which the moral duty of each individual is determined. He censures Kant's argumentation in defence of the validity of the Postulates in the *Critique of the Practical Reason* as being without force, since holding a thing true for merely practical reasons (believing merely because one needs to believe) is self-destructive, and holds that we have as well an immediate conviction of the supra-sensible, to which Kant's postulates of the practical reason relate, as of the existence of sensible objects. This conviction he denominates faith; in later works he terms the faculty, by which we immediately apprehend and are aware of the supra-sensible, reason. On him whose spirit can be satisfied with Spinozism an opposite belief cannot be forced by demonstration; his reasoning is logically consequent, and philosophical justice must acquit him; but such an one, in Jacobi's opinion, gives up the noblest elements of spiritual life. Jacobi acknowledges the philosophical correctness (as a matter of logical deduction) of Fichte's reduction of the belief in a God to the belief in a moral order of the world; but he is not satisfied with this mere logical correctness of the understanding. He blames Schelling for seeking to conceal the Spinozistic consequence of his doctrine (without, it must be said, being fully just towards a stand-point which seeks to do away with this separation of reality and ideality, and to comprehend the finite as filled with the eternal substance, and which sees in the hypostatic and anthropomorphizing conception of the ideal, not a higher knowledge, but only a legitimate form of poetry). Jacobi seeks to raise himself above the sphere, to which, as he says, the understanding remains confined, through faith in God and in divine things. There lives in us, he says, a spirit which comes immediately from God, and constitutes man's most intimate essence. As this spirit is present to man in his highest, deepest, and most personal consciousness, so the giver of this spirit, God himself, is present to man through the heart, as nature is present to him through the external senses. No sensible object can so move the spirit, or so demonstrate itself to it as a true object, as do those absolute objects, the true, good, beautiful, and sublime, which can be seen with the eye of the mind. We may even hazard the bold assertion that we believe in God because we see him, although he cannot be seen with the eyes of this body. It is a jewel in the crown of our race, the distinguishing mark of humanity, that these objects reveal themselves to the rational soul. With holy awe man turns his gaze toward those spheres from which alone light falls in upon the darkness of earth. But Jacobi also confesses: "There is light in my heart, but when I seek to bring it into the understanding, it is extinguished. Which illumination is the true one, that of the understanding, which discloses, indeed, well-defined and fixed shapes, but behind them an abyss, or that of the heart, which, while indeed it sends rays of promise upwards, is unable to supply the want of definite knowledge?" In view of this antagonism, Jacobi calls himself "a heathen with the understanding, but a Christian with the spirit."

Jacobi finds the essential elements of Christianity in theism, or the belief in a personal God, as also in moral freedom and the eternity of human personality. "Conceived thus in its purity" and based on the immediate witness of the personal consciousness, there is for him nothing greater than Christianity. In distinction from this rational characteristic of his "faith-philosophy," in which Friedrich Köppen, Cajetan von Weiller, Jak. Salat, Chr. Weiss, Joh. Neeb, J. J. F. Ancillon, and others substantially agreed with him, his friend and follower, Thomas Wizenmann (cf. on him

Al. von der Goltz, *Wiz., der Freund Jacobi's*, Gotha, 1859), held fast, in what concerns the source of faith, to the Bible, and consequently, also, in respect of the substance of faith, to the specific dogmas of Christianity. In these latter Johann Georg Hamann (born at Königsberg in 1730, died at Münster in 1788), who was a friend of Kant, and also of Herder and Jacobi, and was called the "Magus of the North," found "the necessary support and consolation for an inconstant spirit, rent by its sin and its need," and he took particular pleasure in holding up for special honor the mysteries or "*pudenda*" of Christian faith, illuminating them with flashes of thought, which, though original, often degenerated into the far-fetched and fanciful; to this end he made use especially of the "*principium coincidentiæ oppositorum*" of G. Bruno. (His works ed. by Roth, Berl., 1821–43; cf. Gildemeister, *H.'s Leben und Schriften*, Gotha, 1858–60, and H. von Stein's *Vortrag über H.*). [J. Disselhoff, *Wegweiser zu Hamann*, '71.] To comprehend Christianity as the religion of humanity, man as the final development of nature, and human history as progressive development into humanity, is the problem at whose solution Herder (born at Morungen, East Prussia, in 1744, died 1803, at Weimar), a man endowed with abundant fancy and with the most delicate sense for the appreciation of the reality and poetry of the lives of different nations, labored with success. In opposition to the emphatic dualism, which Kant affirms between the empirical material and the *à priori* form of thought, Herder puts forward the profounder idea of an essential unity and a gradual development in nature and mind. His cosmical philosophy culminates in a poetic Spinozism, filled with the idea of the personality of the divine spirit and of immortality (conceived as metempsychosis —a form of Spinozism, therefore, similar to that exemplified in those works of Spinoza's which preceded the *Ethica* [although this form, historically, was unknown in Herder's time], and less removed from the doctrine of Bruno). This philosophy he developed connectedly in the work entitled "God, Dialogues concerning Spinoza's System" (*Gott, Gespräche über Spinoza's System*, 1787). Herder finds (1772) the origin of language in the nature of man, who, as a thinking being, is capable of contemplating things disinterestedly, uninfluenced by desire; the origin of language is divine, in so far as it is human. The order of development illustrated in the history of language witnesses (as Herder, in part after Hamann, remarks in his *Metakritik*, 1799) against the "a-priorism" of Kant. Space and time, he argues, are empirical conceptions; the form and matter of knowledge are not divided from each other in their origin, nor does the reason subsist apart from the other faculties; we need, instead of a "Critique of the Reason," a Physiology of the Human Faculties of Knowledge. Herder declares that the noblest aim of human life, and the one most difficult to realize, is to learn from youth up what is one's duty, and how, in the easiest manner, and in every moment of life, to perform it as if it were not duty. Herder's principal service to philosophy lies in his philosophical treatment of the history of humanity (*Ideen zur Philos. der Gesch. der Menschheit*, Riga, 1784–91, etc.). An important influence was exerted by his "Letters for the Furtherance of Humanity" (*Briefe zur Beförderung der Humanität*, 1793–97), as indeed, in general, by his enthusiastic devotion to the grand work of collecting out of the various historically given forms of culture whatever was of universal human worth. In his *Kalligone* (1800) he seeks to develop a theory of the beautiful. Jacobi, Hamann, and Herder are, however, names which belong rather to the history of the national literature of Germany than to the history of philosophy. (Cf., H. Erdmann, *Herder als Religionsphilosoph*, Hersfeld, 1866; A. Werner, *H. als Theologe*, Berl. 1871.) [*H. as Theologian;* J. F. Smith, *Theol. Rev.* Lond., '72.]

Jacob Fries (born Aug. 23, 1773, at Barby, died Aug. 10, 1843, at Jena) wrote a

series of philosophical works, the most important of which was the "New Critique of the Reason" (*Neue Kritik der Vernunft*, Heidelberg, 1807, 2d ed., 1828–31; besides this the following are especially to be mentioned: *System der Philosophie als evidenter Wissenschaft*, Leipsic, 1804; *Wissen, Glaube und Ahnung*, Jena, 1805; *System der Logik*, Heidelberg, 1811, 2d ed., 1819, 3d ed., 1837; *Handbuch der praktischen Philosophie*, Jena, 1818–32; *Handbuch der psychischen Anthropologie*, Jena, 1820–21, 2d ed., 1837–39; *Mathematische Naturphilosophie*, Heidelberg, 1822; *Julius und Euagoras oder die Schönheit der Seele, ein philosophischer Roman*, Heidelberg, 1822; *System der Metaphysik*, Heidelberg, 1824. A complete biography of him has been furnished by his son-in-law, Ernst Ludw. Theod. Henke: *Jak. Friedr. Fries, aus seinem handschr. Nachlass dargestellt*, Leipsic, 1867). Fries proposes the question whether the critique of the reason, which inquires into the possibility of *à priori* knowledge, is, on its part, to be effected by *à priori* or *à posteriori* knowledge, and decides in favor of the latter alternative: we can only *à posteriori*, namely, through internal experience, become conscious that and how we possess cognitions *à priori*. Psychology, based on internal experience, must therefore form the basis of all philosophizing. Fries argues that Kant partially, and Reinhold altogether, failed to apprehend this character of the critique of the reason, and viewed it as resting on *à priori* knowledge. (Kant himself has nowhere raised the above question; his express exclusion of empirical psychology from metaphysics, logic, and ethics by no means involves its exclusion from the science of cognition or the "critique of the reason," which is identical with neither of these branches of philosophy. But since he assumes the existence of apodictical knowledge, at least in mathematics, as a fact, and places it at the basis of his investigations, and since he also deduces the categories from the empirically given forms of logical judgments, and, in moral philosophy, chooses for his point of departure the immediate moral consciousness, which is, he says, as it were a "fact of the pure reason," it cannot be denied that he, too, bases his critique of the reason on—real or supposed—facts of internal experience; the question whether and why the assumption is justified, that every one else experiences the same things in himself, which the critical philosopher finds in his own internal experience, may therefore, in this view of the case, be pertinently addressed to Kant. The same may also be said of the question: Whence can it be known that universality and necessity constitute a criterion of the *à priori?* since it seems alike impossible to demonstrate, either *à priori* or *à posteriori*, the—in reality indemonstrable—proposition, that experience and induction can furnish only a relative universality. But there is by no means, as some have affirmed, an intrinsic "absurdity" in the theory that we become cognizant through internal *experience* of our possession of *à priori* cognitions; for an apodictical and *à priori* character is ascribed to the mathematical and metaphysical cognitions—as also to the consciousness of duty—themselves, while an empirical character is attributed not to these cognitions as such, but only to our consciousness that we possess them. Supposing that there were any *à priori* cognitions in the Kantian sense of this expression, it might very well be supposed, as is done by Fries, that metaphysics, in like manner with mathematics, is specifically distinct from all empirical science, and yet that another science, based on internal experience, viz.: the critique of the reason, must decide upon the claims of these apodictical sciences—or at least of these sciences claiming to be apodictical—to recognition, and upon the limits of their validity as such sciences.) Fries assumes, with Kant, that space, time, and the categories are subjective *à priori* forms, which we impose upon the material furnished by experience, and teaches: Phenomena (which are mental representations) are the objects of empirico-mathematical knowledge, and its

only objects; for even the existence of things-in-themselves is not (as Kant had assumed) a matter of knowledge; all phenomena can be reached by empirico-mathematical cognition; organic existences must be susceptible of a mechanical explanation, founded on the mutual action of their parts upon each other; circulation is their law, just as counterpoise or indifference is the law of the inorganic world. (An attempt to carry out this idea of the possibility of explaining by mechanical laws all the processes of organic life, was made—with principal reference to the vegetable kingdom—notably, by Fries's pupil, Jak. Matthias Schleiden.) Things-in-themselves, which Fries terms the true, eternal essence of things, are the objects of faith. Underneath all the praxis of the reason lies the belief in reality and worth, and above all in the equal personal dignity of all men; from this principle flow the requirements of morals. The ennobling of humanity is the highest moral duty. The mediating link between knowledge and faith is presentiment, to the sphere of which æsthetic and religious contemplation belong. In the feeling of the beautiful and sublime the finite is seen as the manifestation of the eternal; in religious reflection the world is interpreted in the light of Ideas; in the course of the universe reason discerns by presentiment the end to which it tends, and in the life of beautiful natural objects the eternal goodness which controls all things. Religious philosophy is the science *of* faith and presentiment, and not derived *from* them. The more important of Fries's disciples, besides Schleiden, have been E. F. Apelt (1812–1859; *Metaphysik*, Leipsic, 1857; *Religionsphilosophie*, ed. by S. G. Frank, Leipsic, 1860; *Zur Theorie der Induction*, Leipsic, 1854; *Zur Geschichte der Astronomie, Ueber die Epochen der Geschichte der Menschheit*, Jena, 1845–46, etc.), E. S. Mirbt (*Was heisst philosophiren und was ist Philosophie?* Jena, 1839; *Kant und seine Nachfolger*, Jena, 1841), F. van Calker (*Denklehre oder Logik u. Dialektik*, 1822, etc.), Ernst Hallier, Schmidt, Schlömlich, the mathematician (*Abhandlungen der Fries'schen Schule*, by Schleiden, Apelt, Schlömlich, and Schmidt, Jena, 1847), and others; De Wette, the theologian, also set out from the principles of Fries. On Beneke, who ended with an elaborate psychological empiricism, the doctrine of Fries exerted in many respects an important influence.

In his principal work, entitled the "Only possible Stand-point from which the Critical Philosophy can be Judged" (*Einzig möglicher Standpunkt, aus welchem die kritische Philosophie beurtheilt werden muss*, Riga, 1796, which forms the third volume of the "*Erläuternder Auszug aus Kant's kritischen Schriften*," Riga, 1793–94), as also in his "Compendium of the Crit. Philos." (*Grundriss der krit. Philosophie*, 1796), and other works, Jakob Sigismund Beck (1761–1842) sought, after the example of Maimon, and probably, also, under the partial influence of Fichte's *Wissenschaftslehre* (which appeared in 1794), to explain away the logical inconsequence of Kant in representing things-in-themselves as affecting us, and thereby giving us the material for representations, and yet as existing without relation to time, space, or causality. Beck denies that the percipient subject is affected by the things-in-themselves, and affirms that the passages in which Kant asserts the contrary were a didactic accommodation of the author to the stand-point of the dogmatic reader. (A curious kind of didactics, indeed, that would not facilitate the correct understanding of the author, but would well-nigh render such understanding impossible.) Beck disposes of the question as to the origin of the material of empirical representation by the theory of the affection of the senses by phenomena (which theory, since phenomena are themselves only representations, involves the absurd supposition, that the origin of our representations depends on the operation of our representations on our senses, hence, that our representations affect us before they exist); the relation of the individual to other individ-

uals he leaves unexplained; the pure forms of intuition, space and time, he refers back to the same original synthesis of the manifold to which the Categories are referred. Religion is defined by him as obedience to the voice of conscience, the inward judge, which man conceives symbolically as external to him and as God. [At London, in 1798, was published J. S. Beck's *Principles of the Critical Philosophy, translated by an auditor.—Tr.*]

Christoph Gottfried Bardili (1761–1808), in his "Letters on the Origin of Metaphysics" (*Briefe über den Ursprung der Metaphysik*, published anonymously at Altona, in 1798), and still more in his Compendium of Logic (*Grundriss der ersten Logik, gereinigt von den Irrthümern der bisherigen Logik, besonders der Kantischen*, Stuttgard, 1800), attempted, in a form which was characterized by great abstruseness, to found a doctrine of "rational realism," which contained many germs of later speculations, and especially the germ of Schelling's idea of the indifference of the objective and subjective in an absolute reason, and of the (Hegelian) idea of a logic which should be at once logic and ontology. The same active thought, which permeates the universe, comes, says Bardili, in man to consciousness; in man the feeling of life rises to personality, and the natural laws of phenomena become laws of the association of his ideas.

The Bardilian Realism pre-supposes the reality of nature and mind, and their unity in the Absolute, but does not contain a complete refutation of Kant's arguments for the contrary. Of the two contradictory elements contained in the Kantian Criticism, Beck's Idealism elevates the idealistic element into prominence, arbitrarily disposing of the realistic one. To remove the contradiction, the opposite way could with equal right be followed, the idea of the affection of the Subject by "things-in-themselves" being adopted as correct, and the whole doctrine being transformed on this basis. This latter course was pursued by Herbart. Herbart took his point of departure, however, not immediately from Kant, but from Fichte, to whose subjective idealism he opposed his fundamental doctrine of the plurality of simple, real essences, a doctrine akin to the monadological doctrine of Leibnitz.

§ 126. Johann Gottlieb Fichte (1762–1814), originally a Spinozistic determinist, was led to a change of opinion through the influence of Kant's doctrine of the limitation of causality to phenomena, and his assertion of the independent moral freedom of the Ego as a noumenon. Accepting these opinions, he carried out in theoretical philosophy the principle of the limitation of causality to phenomena—a principle which he had learned to value in moral philosophy—more fully than Kant had done, affirming that the "matter" of representations was not derived, as Kant had affirmed, from the action of things-in-themselves on the agent of representation, or the percipient subject, but that both matter and form were the result of the activity of the Ego, and that they were furnished by the same synthetic act which produces the forms of intuition and the categories. The manifold contents of experience, like the *à priori* forms of cognition, are produced by a creative faculty in us. It is not any given fact, but it is this action of production, which is the ground of all consciousness. The Ego posits both

itself and the non-ego, and recognizes itself as one with the latter; the process of thesis, antithesis, and synthesis is the form of all knowledge. This creative Ego is not the individual, but the absolute, Ego; but Fichte seeks to deduce the former from the latter, because morality demands the distinction of individuals. The world is the material of duty in the forms of sense. Fichte pronounces the rise of the original limits of the individual incomprehensible. God is the moral order of the world. As Fichte in his later speculations made the absolute his point of departure, his philosophizing assumed more and more a religious character, yet without belying its original basis. His *Addresses to the German Nation* drew their inspiring influence from the energy of his moral consciousness. The philosophical school of Fichte included but few men; yet his speculation became, partly through Schelling and partly through Herbart, of most decisive influence for the further development of German philosophy.

Joh. Gottlieb Fichte's nachgelassene Werke, ed. by Imman. Herm. Fichte, 3 vols., Bonn, 1834. *Sämmtliche Werke*, ed. by the same, 8 vols., 1845–46. [*Popular Writings of J. G. Fichte*, transl. by W. Smith, London, 1848–1849; new ed., '71. Vol. I. contains: *Memoir* of Fichte; *The Nature of the Scholar; The Vocation of Man; The Vocation of the Scholar*. Vol. II. contains: *Characteristics of the Present Age; Outlines of the Doctrine of Knowledge; Way towards the Blessed Life.*—Fichte's *Destiny of Man*, transl. by Mrs. Percy Sinnett, London, 1846.—Several translations from the writings of Fichte have been published by A. E. Kroeger, in the *Journal of Speculative Philosophy*, edited by Wm. T. Harris and published at St. Louis, viz.: *Introduction to Fichte's Science of Knowledge, Journ. of Specul. Philos.*, Vol. I., 1867, pp. 23–36; *A Criticism of Philosophical Systems, ibid.*, Vol. I., pp. 79–86 and 137–150; *Fichte's Sun-Clear Statement, ibid.*, Vol. II., 1868, pp. 3–15, 65–82, 129–140; *New Exposition of the Science of Knowledge, ibid.*, Vol. III., 1869, pp. 1–31, 97–133, 193–241, 289–317 (also published separately, St. Louis, 1869); *Facts of Consciousness, ibid.*, Vol. V., 53–61, 130–144, 226–231. *Fichte's Science of Knowledge*, translated by A. E. Kroeger, Philadelphia, 1868; *Science of Rights, Ibid.*, 1870.—*Tr.*] Fichte's Life has been written by his son, and published together with his literary correspondence, Sulzbach, 1830, 2d ed. Leips., 1862. Interesting additions to the same have been made by Karl Hase in the *Jena. Fichtebüchlein*, Leipsic, 1856. Cf. William Smith, *Memoir of Joh. G. Fichte*, 2d ed., London, 1848. Of F.'s political views, Ed. Zeller treats in Von Sybel's *Histor. Zeitschrift*, IV., p. 1 seq., reprinted in Zeller's *Vorträge u. Abh.*, Leipsic, 1865, pp. 140–177. Of the various accounts of his system, those of Wilh. Busse (*F. u. s. Beziehung zur Gegenwart des deutschen Volkes*, Halle, 1848–49), Löwe (*Die Philosophie Fichte's nach dem Gesammtergebniss ihrer Entwicklung und in ihrem Verhältniss zu Kant und Spinoza*, Stuttgard, 1862), Ludw. Noack (*J. G. F. nach s. Leben. Lehren und Wirken*, Leips., 1862), and A. Lasson (*J. G. Fichte im Verhältniss zu Kirche und Staat*, Berlin, 1863), are specially to be mentioned. Numerous addresses and articles (of which v. Reichlin-Meldegg gives a review in I. H. Fichte's *Ztschr. f. Ph.*, Vol. 42, 1863, pp. 247–277) were occasioned by the Fichte-centennial of May 19, 1862; among their authors we may mention especially Heinr. Ahrens, Hubert Beckers, Karl Biedermann, Chr. Aug. Brandis, Mor. Carriere, O. Dorneck, Ad. Drechsler, L. Eckardt, Joh. Ed. Erdmann, Kuno Fischer, L. George, Rud. Gottschall, F. Harms, Hebler, Helfferich, Karl Heyder, Franz Hoffmann, Karl Köstlin, A. L. Kym, Ferd. Lassalle, J. H. Löwe, Lott, Jürgen Bona Meyer (on the *Reden an die D. Nat.*), Monrad, L. Noack, W. A. Passow, K. A. v. Reichlin-Meldegg, Rud. Reicke (in the *D. Mus.*), Rosenkranz (in the *Gedanke*, V., p. 170), E. O. Schellenberg, Rob. Schellwien, Ed. Schmidt-Weissenfels, Ad. Stahr, Leop. Stein, Heinr. Sternberg, H. v. Treitschke, Ad. Trendelenburg, Chr. H. Weisse, Tob. Wildauer, R. Zimmermann. Cf. Kuno Fischer's *Hist. of Modern Philosophy*, Vol. V.: *Fichte and his Predecessors*, Heidelberg, 1868 [German].

Johann Gottlieb Fichte was born May 19th, 1762, at Rammenau in Upper Lusatia. His father, a ribbon-weaver, was descended from a Swedish cavalry sergeant in the army of Gustavus Adolphus, who had remained in Saxony. The Baron von Miltiz interested himself in the talented boy. From 1774 to 1780 Fichte attended the

"Princes' School" at Pforta, then studied theology at Jena, filled from 1788 to 1790 a position as family tutor in Switzerland, and in 1791 went to Königsberg, where he laid before Kant the manuscript of his first and rapidly written (between July 13th and August 18th) work, the "Critique of All Revelation" (*Versuch einer Kritik aller Offenbarung*), and by it won Kant's respect and good-will. It was then only one year since Fichte had first become familiar with the Kantian philosophy; he had previously been acquainted with the system of Spinoza, and held a deterministic doctrine, which he gave up as soon as the Kantian doctrine, that the category of causality applies only to phenomena, seemed to assure him of the possibility of the non-dependence of the motions of the will on the causal nexus; it is especially to his choice between deterministic dogmatism and the Kantian doctrine of freedom that the following aphorism of his applies (First Introd. to the *Wissenschaftslehre*, 1797, *Werke*, I., p. 434): "The philosophy that one chooses depends on the kind of man one is." After Reinhold's departure from Jena for Kiel, Fichte became, in 1794, his successor in the Jena professorship, which he filled until the dispute concerning Fichte's atheism, in 1799. In an essay on the "Ground of our Faith in a Divine Government of the World," which he prefixed as an introduction to an opuscule by Forberg on the "Development of the Conception of Religion" (in the *Philos. Journal*, Jena, 1798, No. 1), Fichte treated the conceptions of God and of the moral order of the world as equivalent, which position was censured and denounced by an anonymous pamphleteer in a "Letter from a Father to his Son on the Atheism of Fichte and Forberg." The electoral government of Saxony confiscated the essays of Fichte and Forberg, forbade the circulation of the *Journal* in Saxony and demanded the punishment of Fichte and Forberg, with the threat that otherwise the subjects of the Elector would be forbidden to attend the University of Jena. The government at Weimar yielded before this menace so far as to resolve to have the editors of the *Journal* censured by the Academical Senate for their imprudence. Fichte, learning beforehand of this, declared in a letter (which was private, but by permission was made public), dated March 22d, 1799, and addressed to a member of the government, that, in the case of his receiving a "sharp admonition" from the Academical Senate, he should take his leave, and added the threatening intimation that in that case other Professors also would leave the University with him. This intimation, by which Fichte meant to intimidate the government and frighten it out of its purpose publicly to censure him, but which in reality only irritated it and led to the immediate and formally unjustifiable dismissal of Fichte, was founded on utterances of some of his colleagues, in particular of Paulus, who appears to have said that Fichte might remind his persecutors that he (Paulus), too, and others would, "in case of a restraint being placed on the freedom of teaching," not remain in Jena. This was probably meant by Paulus and others to apply in the case of such a procedure against Fichte, as would tend indirectly to limit their own freedom as teachers, to render distasteful to them a longer stay in Jena, and to make acceptable a call to some other place, as Mayence, where an opening seemed likely to offer itself for them. But Fichte understood it as meaning, of course, much more, and as a promise, in any case, to quit the University *at once* with himself. (Such a promise Paulus and the others cannot have made, whether in view of their own interests, or from a friendship so enthusiastic as to make them ready to sacrifice all, and even to jeopardize the welfare of the University, or, finally, in childish thoughtlessness.) Fichte was reprimanded, and at the same time his threat that he would leave, which should have been resented only on account of its defiant tone, being unreasonably treated as a request for dismissal, he was dismissed. In vain

did Fichte explain that the case supposed by him, of a reprimand coupled with dishonor and restraining the freedom of the professorial chair, had not arisen. A petition from the students in his favor was well meant, but could not but be unsuccessful. Fichte went and the other Professors remained. Not long afterwards appeared Kant's declaration (dated Aug. 7th, 1799, in the *Intelligenzblatt* to the *Allg. Litt.-Ztg.*, No. 109, 1799) that he regarded Fichte's *Wissenschaftslehre* as an altogether faulty system, and that he protested against any attempt to discover the doctrines of Fichte in his own *Critiques*, which latter were to be judged according to their letter, and not according to a supposed spirit in contradiction with the letter. In like manner Kant had previously declared that the construction of the world out of self-consciousness, without empirically given material, produced on him a ghostly impression, and that the *Wissenschaftslehre* was only an ephemeral production. Fichte repaired to Berlin, where an utterance of the king, in the spirit of Frederick the Great, in which fitting discrimination was made between religious opinion and civil right, assured him of toleration. He entered into relations of familiar intercourse with Friedrich Schlegel, Schleiermacher, and other men of note, and was soon delivering public lectures before a numerous circle of educated men. In the year 1805 a professorship in the (at that time Prussian) University of Erlangen was given to him; but he lectured there only during the summer semester of 1805. In the summer of 1806 Fichte went, in consequence of the advance of the French, to Königsberg, where he lectured for a short time; here he was already engaged in the preparation of his *Addresses to the German Nation*, which were delivered in the Academy-building at Berlin, in the winter of 1807–8. Appointed a Professor in the University of Berlin at the founding of that institution (1809), he continued earnestly engaged in the duties of his profession, and constantly modifying his system, until his death, on the 27th of January, 1814. He died of a nervous fever, which he caught from his wife, who had devoted herself to the care of the sick in the hospitals and herself recovered from the infection.

Fichte's principal works are the following. From the year 1790 are preserved his *Aphorisms on Religion and Deism*—which are of interest for the light which they throw on the history of the author's intellectual development; his *Sermons*, 1791. In the year 1792 appeared at Königsberg (from the publishing-house of Hartung) his *Critique of all Revelation*, which, written in the Kantian spirit, and issued by the publisher without the name of the author and without the preface, in which the latter describes himself as a "beginner," (an omission which appears from numerous coinciding indications to have been intentional on the part of the publisher and without Fichte's knowledge or desire), was supposed at first by the reviewer in the *Jen. Allg. Litt.-Ztg.*, and almost universally by the philosophical public, to be a work of Kant; when the error became known, Fichte received the honor of the authorship of a work which it had been possible to ascribe to Kant. This circumstance contributed essentially towards procuring him his subsequent call to Jena. In the year 1793 appeared anonymously the following writings (written in Switzerland, where Fichte married a daughter of a sister of Klopstock): "Reclamation of the Right to Free Thought from the Princes of Europe who have hitherto suppressed it," and "Contributions to the Correction of the Public Judgment concerning the French Revolution," in which Fichte develops the idea that although States have arisen by oppression and not by contract, yet the State rests ideally on a contract, and it must be constantly brought nearer to this ideal; all that is positive finds its measure and law in the pure form of ourself, in the pure Ego. After his entrance upon his professorial duties at Jena, Fichte published the opuscule on the Idea of the Science of Knowledge (*Ueber den Begriff der Wissenschaftslehre oder der*

sogenannten Philosophie, Weimar, 1794), and the "Foundation of the whole Science of Knowledge" (*Grundlage der gesammten Wissenschaftslehre, als Handschrift für seine Zuhörer*, Jena and Leipsic, 1794); the moral lectures on the Destination of the Scholar (*Ueber die Bestimmung des Gelehrten*) were also published in 1794, and to the same year belongs the paper, written for Schiller's "*Horen*," on "Spirit and Letter in Philosophy." The dates and titles of his subsequent works are as follows: 1795: *Grundriss des Eigenthümlichen in der Wissenchaftslehre.* 1796: *Grundlage des Naturrechts nach Principien der Wissenschaftslehre.* 1797: *Einleitung in die Wissenschaftslehre*, and *Versuch einer neuen Darstellung der W.-L.*, in the *Philos. Journal.* 1798: *System der Sittenlehre nach Principien der W.-L.; Ueber den Grund unseres Glaubens an eine göttliche Weltregierung*, in the *Philos. Journal.* 1799: *Appellation an das Publicum gegen die Anklage des Atheismus, eine Schrift, die man zu lesen bittet, ehe man sie confiscirt*, and *Der Herausgeber des philos. Journals gerichtliche Verantwortungsschreiben gegen die Anklage des Atheismus.* 1800: *Die Bestimmung des Menschen; Der geschlossene Handelsstaat.* 1801: *Friedrich Nicolai's Leben und sonderbare Meinungen*, and *Sonnenklarer Bericht an das Publicum über das eigentliche Wesen der neuesten Philosophie, ein Versuch, den Leser zum Verstehen zu zwingen.* 1806: *Grundzüge des gegenwärtigen Zeitalters*, and *Anweisung zum seligen Leben.* 1808: *Reden an die deutsche Nation.*

In the "Review of *Aenesidemus*" (the work of Gottlob Ernst Schulze "on the fundamental positions of Reinhold's Elementary Philosophy, together with a defence of Skepticism against the pretensions of the Critique of the Reason"), which was written in 1792 and published in the *Jenaer Allg. Litteraturzeitung*, Fichte admits, with Reinhold and Schulze, that the whole body of philosophical doctrine must be derived from one principle, but questions whether, for this purpose, Reinhold's "Principle of Consciousness" (which runs thus: "In consciousness the representation is distinguished by the Subject from the Subject and the Object, and referred to both") is sufficient. For this principle of Reinhold's, he argues, can only serve for the basis of theoretical philosophy; but for the whole system of philosophy there must be a higher conception than that of mental representation, and a higher principle than this of Reinhold's. Fichte finds the essential contents of the critical doctrine in the proof therein furnished, that the notion of a thing possessing existence and various definite qualities, independently of the existence in some being of a representative faculty, is a pure fancy, a dream, an irrational notion. Skepticism leaves open the possibility that the limits of the human mind may yet be transcended; but Criticism demonstrates the absolute impossibility of such a progress, and is therefore negatively dogmatic. That Kant did not effectuate (what Reinhold first attempted, namely) the derivation of philosophy from a single principle, Fichte explains as resulting from his "plan, which was simply to prepare the way for the science of philosophy;" Kant nevertheless, adds Fichte, discovered the basis for such derivation in Apperception. But in regard to the distinction between things as they appear to us and things as they are in themselves, Fichte expresses the opinion that it was "certainly intended to be accepted only provisionally and conditionally;" that in this latter particular he was deceived, soon became clear to him from Kant's (above-mentioned) Declaration of Aug. 7th, 1799, on learning of which he pronounced Kant (in a letter to Reinhold) a "three-quarters man," but held fast to the conviction that there exist no things-in-themselves independently of the thinking Subject, no non-Ego which is not contradistinguished from a correlative Ego, and also that this doctrine alone corresponds with the spirit of the critical philosophy, and that the "holy spirit in Kant" had thought more in accordance with

truth than Kant in his individual personality had done. For the rest, Fichte had enunciated already in the above-named review the doctrine that things are really and in themselves such as they must be conceived to be by every intelligent Ego, and that therefore logical truth is, for every intelligence which a finite intelligence can conceive, at the same time real truth. (This doctrine, without the qualification: "for every intelligence which a finite intelligence can conceive," became subsequently the foundation of Schelling's and Hegel's doctrines.)

In the "Groundwork of the Science of Knowledge" (*Grundlage der Wissenschaftslehre*) Fichte seeks to solve the problem of the derivation of all philosophical knowledge from a single principle. This principle, Fichte, setting out from Kant's doctrine of the transcendental unity of apperception, finds in the consciousness of the Ego. The contents of this consciousness he expresses in three principles, whose mutual logical relation of thesis, antithesis, and synthesis is repeated in all the divisions of Fichte's System.

1. The Ego originally posits absolutely its own being. This "act" is the real ground of the logical principle A = A, from which this act can be discovered, though not proved. If in the proposition: I am, abstraction be made of the definite substance, the I, and the mere form of the inference from position to existence be left, as for the purposes of logic must be done, we obtain as the principle of logic the proposition A = A. If in the proposition A = A we pay regard to the knowing subject, we have discovered the Ego as the *prius* of all acts of judgment.

2. The Ego posits in distinction from itself a non-Ego. (Non-A is not = A.)

3. The Ego opposes to the divisible Ego a divisible non-Ego—an act which is twofold:—

a. Theoretically: the Ego posits itself as limited or determined by the non-Ego;

b. Practically: the Ego posits the non-Ego as determined by the Ego.

The corresponding logical principle is the principle of *ground* or *reason.*

The Ego, with which the "Science of Knowledge" begins, or the Ego of intellectual intuition, is the mere identity of conscious subject and of object of consciousness, the pure Ego-form, as yet without individuality. But the Ego as Idea is the rational being, when it has perfectly set forth the universal reason within and without itself. Reason in its practical part ends with this Ego, which it sets before us as the end after which our reason should strive, but which it can only approach by a progress prolonged *in infinitum.* This Ego, this ultimate rational being, is no longer individual, individuality being swept away by the universal laws in accordance with which this Ego is developed. (Second Introduction to the *Wissenschaftslehre*, 1797, *Werke* I., p. 515 seq.; cf. the "Sun-Clear Statement," *Sonnenkl. Bericht*, 1801, *Werke* II., p. 382).

From these three principles Fichte deduces the whole of theoretical philosophy in respect of content and form, and also the norms of ethical praxis. In so doing Fichte believed that he was adding to Kant's *Critique* the completed system of the pure reason.

If from the proposition: I am, we abstract all judgment, in the sense of a specific act of judging, and regard in it only the mode of action of the human mind in general, we have the category of Reality. If in like manner, in the case of the second principle given above, we make abstraction of the action of judging, we have the category of Negation, and in the case of the third principle, the category of Limitation. Similarly, the other categories, as also the forms and material of perception, are obtained by abstraction from the activity of the Ego.

Not in the *Groundwork of the Science of Knowledge*, but in his *Natural-Right* does Fichte first arrive at the deduction of the plurality of individuals. The Ego cannot conceive itself as free Subject without first having found itself determined to self-determination by something external to itself. But it can only be solicited to self-determination by a rational being. It must therefore conceive not only the sensible world, but also other rational beings, as external to itself, and hence posit itself as one Ego among several.

The "Systematic Ethics upon the Principles of the Science of Knowledge" (*System der Sittenlehre nach den Principien der Wissenschaftslehre*, 1798) finds the principle of morality in the idea necessarily involved in the notion of intelligence, that the freedom of an intelligent being, as such, must be absolutely and without exception the freedom of independence. The manifestation and representation of the pure Ego in the individual Ego is the law of morals. Through morality the empirical Ego returns by the way of an approximation *in infinitum* into the pure Ego.

In the *Critique of All Revelation* Fichte assumes that, on the supposition of an actual total degeneracy on the part of man, religion is able to awaken, by means of miracles and revelations addressed to the senses, his moral susceptibilities (whereas Kant, in his *Religion within the Limits of the Mere Reason*, terms all extra-moral elements of religion "statutory," denying that they are aids emanating immediately from God, and allowing them to be only human devices accessory to purely moral religion). From the stand-point of the *Science of Knowledge* Fichte reduces all religion to faith in a moral order of the world. So, in particular, in the opuscule of the year 1798 on the *Ground of our Faith in a Divine Government of the World*, and in the *Defence against the Charge of Atheism*, supplementary to the former. The belief in a God is the confidence, which he finds also practically confirmed, in the absolute power of the good. 'The living and operative moral order," says Fichte in the above-cited opuscule, "is itself God; we need no other God and can comprehend no other. There is no ground in reason for going outside of that moral order and assuming, as the result of an inference from the caused to its cause, the existence of a particular being as the cause of that order." "It is not at all doubtful, it is rather the most certain of all things, nay, more, it is the ground of all certainty, and the only absolute, objective truth, that there is a moral order of the world; that every individual has his definite place in this order, and that his labor is reckoned upon; that all that befalls him, except in so far as it may be caused by his own conduct, is a result of this plan; that no hair falls from his head and (within the sphere of its operation) no sparrow falls to the ground without it; that every truly good action succeeds and every bad one results abortively, and that for those who only heartily love the good, all things must work together for their highest interest. On the other hand, to him who will reflect for an instant, and frankly confess to himself the result of his reflection, it cannot be less certain that the conception of God as a particular substance is impossible and contradictory, and it is lawful to say this plainly, and to put down the prating of the schools, in order that the true religion, which consists in joyously doing right, may come to honor." (Forberg, in the essay to which Fichte's was prefixed, declared that it was uncertain whether there was a God; that polytheism, provided only the gods of mythology acted morally, was quite as compatible with religion as monotheism, and, in an artistic point of view, was far preferable, and that religion should be confined to two articles of faith: the belief in the immortality of virtue, *i. e.*, that there always has been and will be virtue on earth, and the belief in a kingdom of God on earth, *i. e.*, the maxim or rule, to work at least so long for the advancement of goodness as the impossibility of success is not clearly demonstrated; finally, Forberg had left it to the judgment of each individual, whether it was wiser to unite to an old term, "religion," a new kindred conception, and thereby to place the latter in danger of being again swamped in the former, or rather to lay the old term wholly aside, in which case it would be more difficult or even impossible to secure the confidence of many persons. Later, also, in a letter to Paulus (written at Coburg in 1821, and given in *Paulus u. s. Zeit*, by Reichlin-Meldegg, Stuttgard, 1853, Vol. II., p. 268 seq.; cf. Hase, *Fichte-Büchlein*, p. 24 seq.), Forberg affirmed: "In no position of my life have I had need of faith, and I expect to continue in my decided unbelief until the end, which will be for me a total end," etc.; while Fichte, although at different times he expressed himself in different ways, entertained always more affirmative opinions respecting immortality. According to Fichte, no Ego that has become real can ever perish; into those elements, or individual parts, into which Being originally severed, it remains severed eternally; but only that Ego becomes real, in the full sense of the term, in which the life of the Idea is consciously manifested, and which therefore has developed out of itself something universal and eternal. Cf. Löwe, *Die Ph. F.'s*, Stuttg., 1862, pp. 224–230.)

The "Destination of Man" (*Die Bestimmung des Menschen*, Berlin, 1800) is a fervid, exoteric presentation of Fichte's Idealism in its opposition to Spinozism.

Soon after the controversy respecting Fichte's atheism, Fichte came to make the Absolute his point of departure in philosophizing, as is seen especially in the *Exposition of the Science of Knowledge* (written in the year 1801, and first printed in his Works, Vol. II., 1845), into which some of Schleiermacher's ideas, in his *Reden über die Religion*, found entrance, and as is also seen in his "Way to the Blessed Life" (*Anweisung zum seligen Leben*). He defines God as the alone truly Existent, who through his absolute thought places external nature, as an unreal non-Ego, over against himself. To the two practical stand-points of life, which it had previously been customary (in agreement with Kant's Ethics) to distinguish, viz.: the stand-point of pleasure and that of the consciousness of duty in the form of the categorical imperative, Fichte now adds three more, which he regards as higher, namely, positive or creative morality, religious communion with God, and the philosophical knowledge of God.

In the "Characteristics of the Present Age" (*Grundzüge des gegenwärtigen Zeitalters*, lectures delivered at Berlin in 1804–1805, printed at Berlin in 1806) Fichte distinguishes in the philosophy of history five periods: 1. That in which human relations are regulated without compulsion or painful effort by the mere instinct of the reason; 2. That in which this instinct, having become weaker and expressing itself only in a few elect persons, is transformed by these few into a compulsory, external authority for all; 3. That in which this authority, and with it the reason, in the only form in which it as yet exists, is thrown off; 4. That in which reason enters into the race in the shape of science; 5. That in which art is associated with this science, in order with surer and firmer hand to mould life according to science, and in which this art freely completes the rational disposition of human relations, the end of all earthly living is reached, and our race treads the higher spheres of another world. Fichte finds his age in the third epoch.—In the *Lectures on the Science of Politics*, delivered in the summer-semester of 1813 (*Werke*, Vol. IV., p. 508), Fichte defines history as the advance from original inequality, resting on mere faith, toward that equality which results from the complete arrangement of human relations by the understanding.

The energy of Fichte's moral character was most manifested in his *Addresses to the German Nation*, the object of which was to excite a spiritual regeneration of the nation. "Grant that freedom has disappeared for a time from the visible world; let us give it

a refuge in the innermost recesses of our thoughts, until there rises and grows up around us the new world, having power to bring these thoughts to outward manifestation." This end is to be reached by an altogether new mode of education, which shall lead to personal activity and morality, and of which Fichte finds a beginning in the Pestalozzian system. It is not by his particular proposals, which were to a great extent exaggerated in idea and fanciful, but by the ethical principle underlying his discourses, that Fichte contributed essentially to the moral elevation of the German nation, and especially inspired the young to engage with cheerful self-sacrifice in the struggle for national independence. The contrast is sharp between Fichte's earlier cosmopolitanism, which led him in 1804 to see in the State which happens to stand at the head of civilization the true fatherland of the educated, and that warm love for the German nation manifest in his *Addresses*—a love that was intensified into an extravagant cultus of everything German, in which the distinction between German and foreign was almost identified with that between good and bad.

Fichte's later doctrine is a further development of his earlier teaching in the same direction in which Schelling still farther advanced. The difference between Fichte's earlier and later philosophy is less in its substance than in its doctrinal form. Schelling, who probably overestimated his own influence on Fichte's later thinking, may have exaggerated the difference, and perhaps interpreted too subjectively Fichte's earlier stand-point. But on the other hand it is not to be denied that Fichte, having set out from Kant's doctrine of transcendental apperception, which was the pure self-consciousness of every individual, found afterwards the principle of his philosophizing more and more in the conception of the Absolute as comprehending in itself all individuals, and that his later system is, consequently, by no means inconsiderably different in matter from his earlier.

The doctrine laid down by Fichte in the *Science of Knowledge* was for a time espoused by Reinhold, who afterwards adopted partly the doctrines of Bardili, and partly those of Jacobi; also by Friedr. Carl Forberg (1770–1848) and Friedr. Imm. Niethammer (1766–1848); the same doctrine is maintained in the writings and lectures of Johannes Baptista Schad and G. E. A. Mehmel.

Inspired by Fichte, Friedrich Schlegel (1772–1829), substituting for the pure Ego the man of genius, became the protagonist of a cultus of genius. Opposing, with Jacobi, the formalism of the categorical imperative (referring to which he said, that with Kant "jurisprudence had struck inwards"), Schlegel sees in art the true means of rising above the vulgar and commonplace, the laborious and faithful performance of duty being no more in comparison with art than is the dried plant in comparison with the fresh flower. Since genius rises above all the limits of the common consciousness, and even above all which it recognizes itself, its conduct is *ironical*. Akin to Schlegel in his type of thought was *Novalis* (Friedrich von Hardenberg, 1772–1801). Schlegel carried his irony and his war against morality to the extreme by his criticism of modesty and "praise of impudence" in the novel *Lucinde* (Berlin, 1799), in which, owing to the absence of a positive ethical content, the legitimate warfare against the formalism of abstraction degenerated into frivolity. (Schleiermacher, in judging of the novel, transferred into it his own more ideal conception of the rights of individuality.) F. Schlegel found subsequently in Catholicism the satisfaction which his philosophy was unable permanently to afford him. Notwithstanding their historical relation to Fichte's doctrine, the Romanticism and Irony of Schlegel, in so far as they substituted for law in thought and volition the arbitrary pleasure of the individual, were not the consequence, but (as Lasson, in his work on Fichte, p. 240, justly remarks) "a direct opposition to the Fichtean spirit." (Cf. J. H. Schlegel, *Die neuere Romantik und ihre Beziehung zur Fichte'schen Philosophie*, Rastadt, 1862.)

§ 127. Friedrich Wilhelm Joseph Schelling (afterwards *von* Schelling, born 1775, died 1854) transformed Fichte's doctrine of the Ego, which formed his own starting-point, by combination with Spinozism into the System of Identity; but of the two sides of that system, the doctrine of nature and the doctrine of spirit, he gave his attention chiefly to the former. Object and subject, real and ideal, nature and spirit are identical in the absolute. We perceive this identity by intellectual intuition. The original undifferentiated unity or indifference passes into the polar opposites of positive or ideal and negative or real being. The negative or real pole is nature. In nature resides a vital principle, which, by virtue of a general continuity of all natural causes, unites all inorganic and organic existences in one complete organism. Schelling terms this principle the soul of the world. The forces of inorganic nature are repeated in higher potencies in the organic world. The positive or ideal pole is spirit. The stages in its development are theory, practice, and art, or the reduction of matter to form, the introduction of form into matter, and the absolute interpenetration and union of form and matter. Art is conscious imitation of the unconscious ideality of nature, imitation of nature in the culminating points of its development; the highest stage of art is the negation of form through the perfect fulness of form.

By incorporating successively into his system various philosophemes, from Plato and Neo-Platonists, from Giordano Bruno, Jacob Boehme, and others, Schelling subsequently developed a syncretistic doctrine which constantly approximated to mysticism, and was of far less influence on the course of the development of philosophy than the original system of identity. After Hegel's death Schelling declared that the system of identity, "which Hegel had only reduced to logical form," though not, indeed, false, was incomplete, and described it as negative philosophy, needing to be completed by the addition of a positive philosophy, namely, by the "Philosophy of Mythology" and the "Philosophy of Revelation." This positive philosophy, or theosophy, as advocated by Schelling, was a speculation in regard to the potencies and persons of the Godhead, looking to the abolition of the opposition between Petrine and Pauline Christianity, or between Catholicism and Protestantism, in a Johannean church of the future. The result remained far short of Schelling's great promises.

Schelling's Works have been published in a complete edition, which contains, in addition to the works previously published, much that till then had remained unpublished, and was edited by his son K. F. A. Schelling, 1st Div., 10 vols., 2d Div., 4 vols., Stuttgard and Augsburg, 1856 seq. To these may be added: *Aus Schelling's Leben, in Briefen*, 2 vols. (covering the years 1775–1820), Leips., 1869–70. A special work on Schelling is C. Rosenkranz's *Schelling, Vorlesungen gehalten im Sommer* 1842 *an der Universität zu Königsberg*, Dantsic, 1843; cf. the accounts of his System in the historical works of Michelet, Erdmann, and others; also, among earlier works, the work, especially, of Jak. Fries on Reinhold, Fichte, and Schelling (Leips., 1803), and among more recent works, several controversial writings which were published on the occasion of the opening of Schelling's lectures in Berlin, namely: *Schelling und die Offenbarung, Kritik des neuesten Reactionsversuchs gegen die freie Philosophie*, Leips., 1842; (Glaser), *Differenz der Schelling'schen und Hegel'schen Philosophie*, Leips., 1842: Marheineke, *Kritik der Schelling'schen Offenbarungsphilosophie*, Berlin, 1843; Salat, *Schelling in München*, Heidelb., 1845; L. Noack, *Schelling und die Philosophie der Romantik*, Berlin, 1859; Mignet, *Notice historique sur la vie et les travaux de M. de Schelling*, Paris, 1858; E. A. Weber, *Examen critique de la philos. religieuse de Sch., thèse*, Strasb., 1860; and papers by Hubert Beckers, in the Transactions of the Bavarian Acad. of Sciences (On the Significance of Schelling's Metaphysics, Transactions, Vol. IX., Munich, 1863, pp. 399–546; On the true and permanent Significance of Schelling's Philos. of Nature, *ibid.*, Vol. X., 2, 1865, pp. 401–449; Schelling's doctrine of Immortality, etc., *ibid.*, Vol. XI., 1, 1866, pp. 1–112), by Ehrenfeuchter, by Dorner, by Hamberger, in the *Jahrb. für deutsche Theol.*, and in his *Christenthum und moderne Cultur* (1863), and by Hoffmann, in the *Athenæum*; Brandis (Memorial Address), in the Trans. of the Berlin Acad. (1855); Böckh, on Schelling's relation to Leibnitz, in the *Monatsber. der Berl. Akad. der Wiss.* (1855; *Kl. Schriften*, Vol. II.), and others. Cf. also E. v. Hartmann, *Schelling's positive Philosophie als Einheit von Hegel und Schopenhauer*, Berlin, 1869.

The son of a country clergyman in Würtemberg, and born at Leonberg on the 27th of January, 1775, Schelling, whose brilliant parts were early developed, entered in his sixteenth year, at Michaelmas, 1790, the theological seminary at Tübingen. His studies included, however, not only theology, but also philology and philosophy, to which were added, at Leipsic in 1796 and 1797, natural science and mathematics. In 1798 he began to lecture at Jena as a colleague of Fichte, and remained there after the departure of the latter. In 1803 he was appointed to a professorship of philosophy at Würzburg, which he filled till 1806, in which year he was made a member of the Academy of Sciences at Munich (and later its permanent secretary). He lectured at Erlangen in the years 1820–1826, and in 1827, when the University at Landshut was abolished and that of Munich founded, he became a Professor in the latter. Thence summoned in 1841 to Berlin, as member of the Academy of Sciences, he lectured several years at the University in that city, on mythology and revelation, but soon gave up his academic labors. He died August 20th, 1854, at the baths of Ragaz, in Switzerland.

In his Master's Dissertation ("*Antiquissimi de prima malorum origine philosophematis explicandi tentamen criticum*"), written in 1792, he gave to the biblical narrative of the fall of man an allegorical interpretation, on the basis of the ideas of Herder. The essay on "Myths, Historical Legends, and Philosophemes of the earliest Times," which appeared in 1793 in Paulus's *Memorabilien* (No. V., pp. 1–65), was written in the same spirit. To the department of New Testament criticism and the earliest history of the church belongs the opuscule, entitled *De Marcione Paulinarum epistolarum emendatore*, 1795. But Schelling's interest was directed constantly more and more to philosophy. He read Kant's *Critique of the Pure Reason*, Reinhold's *Elementary Philosophy*, Maimon's *New Theory of Thought*, G. E. Schulze's *Aenesidemus*, and Fichte's review of this work, as also Fichte's opuscule on the *Idea of the Science of Knowledge*, and wrote in 1794 the work "On the Possibility of any Form of Philosophy" (published at Tübingen, 1795), in which he seeks to show that neither a material principle, like Reinhold's theorem of consciousness, nor a merely formal one, such as the principle of identity, can answer for the principle of philosophy; this principle must be contained in the Ego, in which positing and posited coincide. In the proposition Ego = Ego, form and content mutually conditionate each other.

In the next-following work, on the "Ego as Principle of Philosophy," etc. (*Vom Ich als Princip der Philosophie oder über das Unbedingte im menschlichen Wissen*, Tüb., 1795, reproduced in the *Philos. Schriften*, Landshut, 1809), Schelling designates the absolute Ego as the true principle of philosophy. The knowing subject is the Ego, conditioned by an object; the distinction between subject and object presupposes an absolute Ego, which does not depend upon an object, but rather excludes any object. The Ego is the unconditioned in human knowledge; the whole content of knowledge must be determinable through the Ego itself and by contra-position to the Ego. The Kantian question: How are synthetic judgments *à priori* possible? is, considered in its highest abstraction, no other than this: How comes the absolute Ego to go out of itself, and to posit absolutely over against itself a non-Ego? In the finite Ego there is unity of consciousness, *i. e.*, personality. But the infinite Ego knows no object whatever, and therefore knows no consciousness and no unity of consciousness, no personality. The causality of the infinite Ego cannot be conceived as morality, wisdom, etc., but only as absolute power.

In the "Philos. Letters on Dogmatism and Criticism" (in Niethammer's *Philos. Journal*, 1796, and in the *Philos. Schriften*, Landshut, 1809), Schelling appears as an opponent of the Kantians, whom he found "about to build up, out of the trophies of Criticism, a new system of Dogmatism, in place of which every candid thinker would sooner wish the old structure back again." Schelling seeks (particularly in connection with his consideration of the moral argument for the existence of God) to make out that Criticism, as understood by the majority of Kantians, is only a doctrine intermediate between dogmatism and criticism, and full of contradictions; and that, rightly understood, the *Critique of the Pure Reason* is designed precisely to deduce from the nature of the reason the possibility of two mutually repugnant systems, both of which remove the antagonism between subject and object by the reduction of one to the other, viz.: the systems of Idealism and Realism. "There dwells in us all," says Schelling, "a secret, wonderful faculty, by virtue of which we can withdraw from the mutations of time into our innermost disrobed selves, and there behold the eternal under the form of immutability; such vision is our innermost and peculiar experience, on which alone depends all that we know and believe of a supra-sensible world." Schelling terms this "intellectual intuition." (That which he describes, however, is rather an abstraction than an intuition.) Spinoza, argues Schelling, dogmatically or realistically objectifies this intuition, and hence believes (like the mystic) that in it he loses himself in the absolute. But the idealist recognizes it as the intuition of himself; in so far as we strive to realize the absolute in us, it is not we that are lost in the intuition of the objective world, but the world that is lost in this our intuition, in which time and duration disappear for us, and pure, absolute eternity is in us.

Although Kant denies the possibility of an intellectual intuition, yet Schelling argues (in his "*Abhandlungen zur Erläuterung des Idealismus der Wissenschaftslehre*," written in 1796 and '97, first published in Fichte and Niethammer's *Philos. Journal*, and reprinted in the *Philos. Schriften*) that his own doctrine agrees in spirit with that of Kant, since Kant himself affirms the "I," in the sentence "I think," to be a purely intellectual apprehension, which necessarily precedes all empirical thought. The question raised by Reinhold, whether Fichte in his assertion, that the principle of mental apprehension is purely an internal one, differs from Kant, is thus answered by Schelling: "Both philosophers are one in the assertion, that the ground of our judgments is to be found not in the sensible but in the supersensible. This supersensible ground Kant is obliged, in his theoretical philosophy, to *symbolize*, and he speaks

therefore of *things-in-themselves* as of things which *give* the material for our representations. With this symbolism Fichte can dispense, because he does not, like Kant, treat of theoretical philosophy apart from practical philosophy. For it is just in this that Fichte's peculiar merit consists, namely, that he extends the principle which Kant places at the head of practical philosophy, the principle of the *autonomy of the will*, so as to make it the principle of all philosophy, and thus becomes the founder of a philosophy which can justly be called higher philosophy, since in its spirit it is neither theoretical nor practical alone, but both at once." Of the literal (but historically correct) interpretation of Kant's things-in-themselves Schelling speaks with the same contempt as of the (Aristotelian, and in essentials likewise historically correct) interpretation of the Platonic ideas as substances. In particular, he lays stress on the contradictions in which that interpretation becomes involved. Most of these contradictions undeniably existed, and had also been pointed out by others; but others of them were only supposed, and resulted from Schelling's own misapprehension. "The infinite world is nothing else than the creative mind of man itself in infinite productions and reproductions. I am not, then, Kant's scholar! For them the world and all reality are something originally foreign to the human mind, having no other relation to it than the accidental one, that it works upon the mind. Nevertheless they govern such a world, which for them is accidental and which might just as well be quite differently constituted, by laws which, they know not how or whence, are engraved in their understandings. These conceptions and laws of the understanding they, as supreme law-givers for nature, having full consciousness that the world consists of things-in-themselves, do nevertheless transfer to these things-in-themselves, applying them where they choose with perfect freedom and according to their own good pleasure; and this world, this eternal and necessary nature, obeys their speculative sense of propriety? And it is pretended that Kant taught this? There has never existed a system more ridiculous and fanciful than such a one would be." *

In the year 1797 appeared at Leipsic the first (and only) part of the "Ideas for a Philosophy of Nature" (2d ed., Landshut, 1803), and in the year 1798, at Hamburg, the work: "Of the World-Soul," etc. (*Von der Weltseele, eine Hypothese der höheren Physik zur Erklärung des allgemeinen Organismus;* to the second edition, Hamburg, 1806, as also to the third, Hamburg, 1809, was annexed an essay on the "Relation between the Real and the Ideal in Nature, or Development of the First Principles of Natural

* This critique is only semi-pertinent, since it is not to the things-in-themselves, but to the representations which they call up in us, that the *à priori* forms and laws are represented by Kant as applying; but since these representations, in so far as they depend on things-in-themselves, must also be in part determined by them, there remains, in reality, in the doctrines of Kant and his strict disciples, the absurdity that these same representations must at the same time obey without resistance, as though they were not at all determined by the things-in-themselves, the laws which the Ego, "with perfect freedom and according to its good pleasure," generates out of itself. If, for the rest, Schelling himself holds in this connection that there exist no originals of our representations external to the latter, and that no difference exists between represented and real objects, this only proves that he—like Hegel and others after him—had not solved Kant's problem of the theory of cognition, nor even understood it; an essentially different problem,—that of the real relation between nature and mind,—took in his philosophizing, unconsciously to him, the place of this problem of cognition, and was discussed by him with originality and profundity in his next-following writings, while Kant's problem remained unsolved, although Schelling and his followers erroneously believed that both had been solved at the same time. That mind, teleologically speaking, is the condition of the existence of nature, as, on the other hand, nature is the condition of the genesis of mind, is certainly an idea of profound and permanent truth. But it is not true that the object of knowledge, in the case of every particular act of knowing, depends on that act; on the contrary, it subsists out of human consciousness, but to this form of real subsistence Schelling did not direct his attention.

Philosophy, founded upon the Principles of Gravity and Light"). In the following year was published the "First Sketch of a System of Natural Philosophy" (*Erster Entwurf eines Systems der Naturphilosophie*, Jena and Leipsic, 1799), together with the smaller work: "Introduction to this Sketch," etc. [translated by Tom Davidson, in the *Journal of Speculative Philosophy*, edited by W. T. Harris, Vol. I., St. Louis, 1867, pp. 193–220.—*Tr.*]. Then followed the "System of Transcendental Idealism" (Tübingen, 1800). In these works Schelling considers the subjective or ideal and the objective or real as two poles which mutually presuppose and demand each other. All knowledge, he argues, depends on the agreement of an objective with a subjective element or factor. There are accordingly (as Schelling, especially in the *Introduction to his Sketch of a System of Nat. Philos.* and in the *System of Transcendental Idealism*, goes on to show) two fundamental sciences. Either the objective is made the first element in order, and it is asked how there is added to it a subjective element which agrees with it, or the subjective is made first and the problem is: how an objective element is added, agreeing with it? The first problem is that of speculative physics, the other of transcendental philosophy. Transcendental philosophy, reducing the real or unconscious activity of reason to the ideal or conscious, considers nature as the visible organism of our understanding; physical philosophy, on the contrary, shows how also the ideal, in turn, springs from the real, and must be explained by it. In order to explain the progress of nature from the lowest to the highest formations, Schelling assumes the existence of a Soul of the World as an organizing principle, by which the world is reduced to system.* Schelling recapitulates, in his *System of Transcendental Idealism*, the fundamental conceptions of his natural philosophy (which, though mixed with erroneous and fantastical notions, are yet of permanent worth), as follows: "The necessary tendency of all science of nature is to pass from nature to intelligence. This and nothing else underlies all endeavor to connect natural phenomena with theory. The perfect theory of nature would be that by which all nature should be resolved into intelligence. The dead and unconscious products of nature are but abortive attempts of nature to reflect herself; but so-called dead nature, in general, is an immature intelligence, whence the character of intelligence shines, though unconsciously, through all her phenomena. Her highest end, which is to become wholly objective to herself, is only reached by nature in her highest and last reflection, which is nothing else than man, or, more generally, that which we call reason, through which nature first returns completely into herself, whereby it is made evident that nature is originally identical with that which is known in us as intelligence or the Conscious." The office of transcendental philosophy, on the other hand, is to show the objective as arising from the subjective. "If the end of all philosophy must be either to make of nature an intelligence, or of intelligence nature, transcendental philosophy, which has the latter office, is the other necessary fundamental science of philosophy." Schelling divides transcendental philosophy, in conformity with the three Critiques of Kant, into three parts: (1) theoretical philosophy, (2) practical philosophy, and (3) that branch of philosophy which relates to the unity of the theoretical and the practical, and which explains how ideas may be at once con-

* Of Schelling's predecessors in the assumption of a soul of the world, Plato among the ancient philosophers, and Sal. Maimon among the thinkers incited by Kant, are the most note-worthy. Maimon treats of this subject (*Ueber die Weltseele, entelechia universi*) in the Berlin *Journal für Aufklärung*, ed. by A. Riehm, Vol. VIII., Art. 1, July, 1790, pp. 47–92. He remarks correctly, that according to Kant we can no more affirm the existence of a plurality of souls—or, in general, of forces—than that of one soul, since plurality, unity, existence, etc., are forms of thought, which without a sensible "*Schema*" cannot be employed; but he regards as an allowable hypothesis, and one useful to natural science, the theory of a soul of the world as the ground or cause of inorganic and organic creations, of animal life, and of understanding and reason in man.

ceived as governed by their objects, and the latter as being governed by their correspondent ideas, by showing the identity of unconscious and conscious activity; in other words, the doctrine of natural adaptation and of art. In the theoretical part of his transcendental philosophy Schelling considers the various stadia of knowledge in their relations to the stadia of nature. Matter is extinct mind; the acts and epochs of self-consciousness are rediscoverable in the forces of matter and in the successive processes of their development. All the forces of the universe are reducible, in the last resort, to powers of ideal (mental) representation; the idealism of Leibnitz, who regarded matter as the sleeping condition of monads, is, properly understood, in reality not different from transcendental idealism. Organization is necessary, because intelligence must view itself in its productive transition from cause to effect, or in the succession of its ideas, in so far as this succession returns into itself. Now it cannot do this without making that succession permanent, or representing it as at rest; but succession returning into itself, and represented as at rest, is organization. There must, however, be various degrees or stages of organization, because the succession which becomes the object of intelligence, is, within its limits, itself without end, so that intelligence is an unending effort at self-organization. Among the successive degrees of organization there must necessarily be one which intelligence is forced to look upon as identical with itself. Only a never-ceasing reciprocal action between the individual and other intelligences completes the whole circle of his consciousness with all its attributes. It is only through the fact that there are other intelligences beside myself that the world is made objective to me; the idea of objects external to me cannot otherwise arise than through intelligences external to me; and only through commerce with other individuals can I come to the consciousness of my freedom. The mutual commerce of rational beings through the medium of the objective world is the condition of freedom. But whether all rational beings shall or shall not, conformably to the requirement of reason, restrict their action within those limits which leave room for free action on the part of all others, cannot be left to accident; a second and higher Nature must be erected, as it were, above the first, namely, the law of justice, which shall rule with all the inviolability of a natural law in the interests of freedom. All attempts to convert the legal order into a moral order are abortive and end in despotism. Originally the impulse to reaction against violence led men to a legal order, disposed in view of their immediate needs. The guarantee of a good constitution in each particular State must be sought, in the last resort, in the subordination of all States to a common law of justice, administered by an Areopagus of nations. The gradual realization of law is the substance of History. History, as a whole, is a progressive and gradual revelation of the Absolute. No single passage in history can be pointed out where the trace of providence or of God himself is really visible; it is only through history as a whole that the proof of God's existence can be completed. All single intelligences may be regarded as integrant parts of God or of the moral order of the world; the latter will exist as soon as the former establish it. To this end history approaches in virtue of a pre-established harmony between the objective, or that which conforms to law, and the determining or free. This harmony is only conceivable under the condition of the existence of a higher element, superior to both as being the ground of the identity between the absolutely subjective and the absolutely objective, the conscious and the unconscious, whose original separation was only to the end of the phenomenal manifestation of free action. If the phenomenal manifestation of freedom is necessarily unending, then history itself is a never fully completed revelation of that Absolute, which separates itself for the purposes of this manifestation into the conscious and the unconscious, but which is, in the inaccessible light in which it dwells, the eternal identity of both and the eternal ground of their harmony. Schelling distinguishes three periods in this revelation of the Absolute, or in history, which he characterizes as the periods, respectively, of fate, nature, and providence. In the first, which may be termed the tragical period, the ruling power, fully blind, coldly and unconsciously destroys what is greatest and grandest; in this period falls the extinction of the noblest humanity which ever flourished, and whose return upon earth is the object of only an eternal desire. In the second period, what before appeared as fate now manifests itself as nature, and thus gradually introduces into history at least a mechanical conformity to law; this period Schelling represents as beginning with the expansion of the Roman Republic, whereby the nations were united together, and whatever elements of morality, law, art, and science had only been preserved in a state of isolation among the different nations, were brought into mutual contact. In the third period, that which in the foregoing periods appeared as fate or nature, will develop itself as providence, and it will become manifest that even what seemed to be the mere work of fate or nature, was the commencement of an imperfectly revealed providence. On the necessary harmony of unconscious and conscious activity depend natural adaptation and art. Nature is adapted to ends, although not created in view of an end. The Ego is for itself, in one and the same perception, at once conscious and unconscious, namely, in artistic perception. The identity of the conscious and the unconscious in the Ego, and the consciousness of this identity—two things which exist apart, the former in the phenomenon of freedom, the latter in the perception of nature's products—are united in the perception of products of art. All æsthetic production proceeds from an intrinsically infinite separation of the two activities (namely, conscious and unconscious activity), which are separated in all free production. But since these two activities are required to be separated in all free production. But since these two activities are required to be represented in the product as united, an infinite element must be finitely represented. The infinite, finitely represented, is Beauty. Where beauty is, there the infinite contradiction is removed in the object itself; where sublimity exists, there the contradictory terms are not reconciled in the object itself, but the contradiction is intensified to such a degree that it involuntarily destroys itself, and disappears in our perception of the sublime object. Artistic production is only possible through genius, because its condition is an infinite opposition. That which art in its perfection brings forth is principle and norm for the judgment of natural beauty, which in the organic products of nature appears as absolutely accidental. Science, in its highest function, has one and the same problem to solve with art; but the mode of solution is different, since in science it is mechanical, the presence of genius here remaining always problematical, while no artistic problem can be solved except by genius. Art is the highest union of freedom and necessity.

The "Journal of Speculative Physics" (*Zeitschrift für speculative Physik*, 2 vols., ed. by Schelling, Jena and Leipsic, 1800–1801) contains in particular, in the first volume, in addition to articles by Steffens, a "General Deduction of the Dynamic Process or of the Categories of Physics" by Schelling, at the close of which is found the noteworthy utterance: "We can go from nature to ourselves, or from ourselves to nature, but the true direction for him, to whom knowledge is of more account than all else, is that which nature herself adopts;" the same volume contains also a "Miscellaneous" part, including a short poem on natural philosophy, which deserves to be mentioned, as setting forth in a clear and forcible manner the fundamental conception of the gradual development of the giant-mind, that is as if petrified in nature, into consciousness in man. Man, we are told, can look at the world and say: "I am the God whom it cherishes

in its bosom, the mind that moves in all things. From the first struggling of unseen forces to the outpouring of the first living juices of vegetation, when force grows into force and matter into matter, and the first buds and blossoms swell—and to the first ray of new-born light, which breaks through night like a second creation, and from the thousand eyes of the world by day, as by night, illuminates the heavens, there is One force, One changing play, and One interweaving of forces, One bent, One impulse towards ever higher life." In the "Exposition of my System," in the second volume of this *Journal*, Schelling founds his co-ordination of natural and transcendental philosophy on the theorem that nothing is out of the absolute Reason, but that all things are in it, and adds, that the absolute reason must be conceived as the total indifference of the subjective and the objective. Reason is the true *per se;* to know things as they are in themselves is to know them as they are in the reason. By a figurative employment of mathematical formulæ Schelling shows how the stadia of nature are potencies of the Subject-Object. He gives no exposition of the stadia of mind. The difference which Schelling apprehends (hypothetically, and with the hope of subsequent agreement) as subsisting between his stand-point and Fichte's, is indicated by him in the formulæ: Ego = All, All = Ego; on the former is founded the subjective idealism of Fichte, on the latter his own objective idealism, which he also terms the system of absolute identity.

In the year 1802 appeared the Dialogue: "Bruno, or on the Natural and Divine Principle of Things" (*Bruno oder über das natürliche und göttliche Princip der Dinge*, Berlin, 1802, 2d ed., *ibid.*, 1842), in which Schelling teaches a doctrine founded partly on Giordano Bruno's teachings and partly on the *Timæus* of Plato. Here the name of God is given not only to the indifference of subject and object, but also occasionally to the Ideal. The "Further Exposition of the System of Philosophy" (*Fernere Darstellungen aus dem System der Philosophie*, contained in the *Neue Zeitschrift für speculative Physik*, Tüb., 1802; only one volume of the *Journal* was published) are, in spirit and teaching, partly Brunoistic and partly continuative of the "Exposition of the System" in the second volume of the *Zeitschrift für specul. Physik*. In the same year (1802) Schelling associated himself with Hegel for the publication of the *Kritisches Journal der Philosophie* (Tübingen, 1802–1803. The essay in this *Journal* "On the Relation of Natural Philosophy to Philosophy in General" was not written by Hegel, who furnished the greater number of articles for the journal, but by Schelling, as may be inferred from the fact, pointed out by Erdmann, of the absence in it of the distinction of Logic, as the universal part of philosophy, from natural and transcendental philosophy, a distinction which it is demonstrable that Hegel at that time already made; yet the contrary has been asserted by Michelet in his *Schelling und Hegel*, Berlin, 1839, and by Rosenkranz in his *Schelling*, Dantsic, 1843, pp. 190–195; Haym in *Hegel u. s. Zeit*, pp. 156 and 495, pronounces in favor of Schelling's authorship; yet cf., *per contra*, Rosenkranz and Michelet in *Der Gedanke*, Vol. I., Berlin, 1861, p. 72 seq. The authorship of the articles on "Rückert and Weiss" and on "Construction in Philosophy" is also doubtful; yet it would seem that both must be ascribed to Hegel.) The outlines of his whole system are given by Schelling in popular form in his "Lectures on the Method of Academical Study," which were delivered in 1802 (*Vorlesungen über die Methode des akademischen Studiums*, Stuttgard and Tübingen, 1803, 3d ed., *ibid.*, 1830). Schelling here defines philosophy as the science of absolute identity, the science of all knowledge, having, for its immediate and absolute subject and basis absolute knowledge [*das Urwissen*]. With regard to its form, philosophy is a direct, rational, or intellectual intuition, which is absolutely identical with its object, *i. e.*, with absolute knowledge itself. The exposition of intellectual intuition is philosophical construction. In the absolute identity, or the universal unity of the universal and the particular, are involved particular unities, on which the transition to individuals depends, and to which Schelling, after Plato, gives the name of Ideas. These Ideas can only be given in rational intuition, and philosophy is therefore the science of Ideas or of the eternal archetypes of things. The constitution of the State, says Schelling, is an image of the constitution of the realm of Ideas. In the latter the Absolute, as the power from which all else flows, is the monarch, the Ideas are the freemen, and individual, actual things are the slaves and vassals. Thus Realism (in the scholastic sense of this term), which since the close of the Middle Ages had been abandoned by all philosophers of note, and which is only in a certain sense contained in the doctrine of Spinoza relative to the absolute substance, was, by combination and blending of this latter doctrine with Plato's doctrine of Ideas, renewed by Schelling. Philosophy, says Schelling, becomes objective in three positive sciences, which represent the three intrinsic aspects of the subject of philosophy. The first of these sciences is Theology, which, as the science of the absolute and divine essence, presents objectively the point of absolute indifference between the ideal and the real. The ideal side of philosophy, separately objectified, is the science of history, or, in so far as the most eminent work of history is the development of law, the science of law, or Jurisprudence. The real side of philosophy, taken by itself, is outwardly represented by the science of nature, and in so far as this science concentrates itself in that of organic life, by Medicine. Only by their historical element can the positive or real sciences be separated from absolute science or philosophy. Since theology, as the true centre in which philosophy becomes objective, is pre-eminently contained in speculative ideas, it is the highest synthesis of philosophical and historical knowledge. If the ideal is a higher potency of the real, it follows that the Faculty of Law should precede that of Medicine. The antithesis of the real and ideal is repeated in religious history as the antithesis of Hellenism and Christianity. As in the symbols of nature, so in Greek poetry the intellectual world lay closed up as in a bud, concealed in the Object, unuttered in the Subject. Christianity, on the contrary, is the revealed mystery; in the ideal world, which is opened up in it, the divine lays off its mask; this ideal world is the published mystery of the divine kingdom. The division of history into periods, given by Schelling in his *System of Transcendental Idealism*, is here modified by making the first period—the time of the most beautiful bloom of Greek religion and poetry—the period of unconscious identity with nature; then introducing, with the breaking away of man from nature, the reign of fate, as the second period, which is followed, finally, by the period of restored unity or conscious reconciliation; this last period, the period of providence, is historically introduced by Christianity. The ideas of Christianity, which were symbolized in its dogmas, have a speculative significance. In the doctrine of the Trinity, which he terms the fundamental dogma of Christianity, Schelling finds the following meaning, viz.: that the eternal Son of God, born of the essence of the Father of all things, is the finite itself, as it exists in the eternal intuition of God; and that this Finite appears phenomenally as a suffering God, a God subject to the fatalities of time, and who, in the culmination of his manifestation in Christ, brings to an end the world of finiteness and opens that of infinity or of the supremacy of spirit. The incarnation of God is an incarnation from eternity. Christianity, as an historical phenomenon, issued, as to its particular origin, from a single religious association existing among the Jews (the Essenes). Its more universal root is to be sought in the nature of the Oriental mind, which in the Hindoo religion created the intellectual system and the earliest Idealism, and which, after flowing through the

entire Orient, found in Christianity its permanent bed; from it was distinguished in earlier times that other current, which in Hellenic religion and art gave birth to the highest beauty, while yet, even on the soil of Hellenism, mystical elements were found and a philosophy—the Platonic, pre-eminently—opposed to the popular religion and prophetic of Christianity. The spread of Christianity is explained by the unhappy character of the times, which rendered men susceptible to the influences of a religion that pointed them back to the ideal, teaching self-denial and making of it a pleasure. The first books of the history and doctrine of Christianity are but a particular and an imperfect expression of Christianity, and their worth must be measured by the degree of perfection in which they express the idea of Christianity. Since this idea is not dependent on this particular manifestation of it, but is absolute and universal, it cannot be made dependent on the exegesis of these documents, weighty as they are, for the earliest history of Christianity. The development of the idea of Christianity is in its whole history, and in the new world created by it. Philosophy, in recovering the truly speculative stand-point, has also recovered the stand-point of religion, and prepared the way for the regeneration of esoteric Christianity, as also for the proclamation of the absolute Gospel. In his remarks on the study of History and Nature, Schelling's leading idea is, that the former expresses in the ideal what the latter expresses in the real. From the philosophical construction of history he distinguishes, as other methods, the empirical reception and ascertainment of facts, the pragmatic treatment of history in view of a definite, subjectively proposed end, and that artistic synthesis of the given and real with the ideal, which presents history as a mirror of the world-spirit, as an eternal poem of the divine understanding. The subject for history in the narrower sense is the formation of an objective organism of freedom, or of the State. Every State is in that measure perfect in which each particular part in it, while a means for the whole, is at the same time an end in itself. Nature is the real side of the eternal act by which the subjective is made objective. The being of everything in the Identity of Subject and Object, or in the universal soul, and the striving of everything which has been separated from it, and which has so lost its own unity, to become reunited with it—these constitute the general ground of vital phenomena. The Ideas are the only mediators through which particular things can exist in God. The absolute science of nature, founded in Ideas, is the necessary condition of a methodical procedure in empirical natural science. Experiment and its necessary correlate, theory, are the exoteric side of natural science, necessary to its objective existence. Empirical science is the body of science, in so far as it is pure objective presentation of the phenomenal itself, and seeks to express no idea otherwise than through phenomena. It is the business of natural science to recognize in the various products of nature the monuments of a true history of natural production. In art the real and the ideal completely interpenetrate each other. Art, like philosophy, reconciles what in the phenomenal is antagonistic. But, on the other hand, art is in turn to philosophy, with which, in her highest form, she coincides, as the real to the ideal. To acquire the philosophy of art is a necessary aim of the philosopher, who sees in it, as in a magic symbolical mirror, the essence of his science.

The system of identity expounded in the writings thus far mentioned was the relatively original work of Schelling. But from this time on, his own copious productivity constantly gave place more and more to a syncretism and mysticism, which grew, as he proceeded, ever more gloomy, and yet at the same time more pretentious. From the beginning, Schelling's philosophizing in his separate works was not a system-making founded on a familiarity with all previous philosophical productions, but rather a direct adoption and adaptation of the philosophical doctrines of individual thinkers; the

more, therefore, he extended his study, the more did his thinking lack in point of principle and system. Occasionally a mystical chord is struck in his *Lectures on Academical Study*. A mysticism, founded on Neo-Platonism,—and afterwards also on the doctrines of Jacob Boehme,—begins to gain ground in the work provoked by Eschenmayer's "*Philosophie in ihrem Uebergange zur Nichtphilosophie*" (Erlangen, 1803, in which Eschenmayer, like Jacobi, demands an advance from philosophical thinking to religious faith), viz.: "*Philosophie und Religion*" (Tübingen, 1804), in which Schelling affirms that finiteness and corporeality are the products of a falling away from the absolute, but declares that this fall, the remedying of which is the final aim of history, was the means of the perfect revelation of God. Yet only beginnings of the later stand-point are visible in this work; the opuscule (above-mentioned, and affixed to the second edition of the work on the *World-Soul*) on the *Relation of the Real to the Ideal in Nature*, as also the "Exposition of the true Relation of the Philosophy of Nature to the improved Doctrine of Fichte" (*Darlegung des wahren Verhältnisses der Naturphilosophie zur verbesserten Fichte'schen Lehre, eine Erläuterungsschrift der ersteren*, Tübingen, 1806), and the essays in natural philosophy, in (A. F. Marcus and Schelling's) "*Jahrbücher der Medicin als Wissenschaft*" (Tübingen, 1806–1808), contain, notwithstanding the presence of certain theosophical elements, in the main the old order of ideas. An excellent development and extension of the ideas concerning beauty and art, expressed in earlier works, is contained in the *Festrede* delivered in 1807 and included in the *Philos. Schriften* (Landshut, 1809), on the *Relation of the Plastic Arts to Nature*, in which the ultimate end of art is described as the annihilation of form through the perfection of form; as nature in her elementary works first tends towards severity and reserve, and only in her perfection appears as highest benignity, so the artist who emulates nature as the eternally creative and original force, and represents her products in accordance with their eternal idea as conceived by the infinite mind, and at the moment of their most perfect existence, must first be faithful and true in that which is limited in order to produce perfection and beauty in the whole, and through ever higher combination and final blending of manifold forms to attain to the greatest beauty in forms of the highest simplicity and of infinite meaning.

Theosophy predominated (partly in consequence of the increasing influence on Schelling of Franz Baader, the follower of Jacob Böhme and St. Martin) in the "Philosophical Inquiries concerning the Nature of Human Freedom," etc. (*Philosophische Untersuchungen über das Wesen der menschlichen Freiheit und die damit zusammenhängenden Gegenstände*, first published in the *Philos. Schriften*, Landshut, 1809). In this work Schelling adheres to the principle that clear rational comprehension of the highest conceptions must be possible, since it is only through such comprehension that they can become really our own, can be taken up into ourselves and eternally grounded in us; he also holds, with Lessing, that the transformation of revealed truths into truths of reason is absolutely necessary, if they are to be of any service to the human race. But the way by which Schelling seeks to reach this end leads him to mysticism. Following the lead of Jacob Boehme, Schelling distinguishes in God three *momenta:* 1. Indifference, the primordial basis or the "abyss" of the divine nature; 2. Differentiation into ground [or cause] and existence; 3. Identity or conciliation of the differentiated. The first *momentum*, in which no personality is yet present, is only the beginning of the divine nature; it is that in God which is not God himself; it is the incomprehensible basis of reality. In it the imperfection and evil which pertain to finite things have their ground (a refinement on the doctrine of Boehme, who makes the devil, so to speak, a part of God). All natural beings have a bare existence in the

"ground" of the divine nature, or in an original yearning not yet harmonized and made one with the understanding, and are therefore, in relation to God merely peripheric beings. Man only is in God, and by virtue of this immanence in God he, and he alone, is capable of freedom. The freedom of man was exercised in an "intelligible act," done before time, and through which he made himself what he now is; man, as an empirical being, is subject in his action to necessity, but this necessity rests on his non-temporal self-determination.* Unity of the particular will with the universal will is goodness; separation of the particular will from the universal will is evil. Man is a central being and must therefore remain in the centre. In him all things are created, just as it is only through man that God adopts nature and unites it with himself. Nature is the first or Old Testament, since in it things are still away from their centre, and are therefore under the law. Man is the beginning of the new covenant, the redeemer of nature, through whose mediation—since he himself is united with God—God, after the final separation, receives nature and makes it a part of himself.

In the controversial work against Jacobi: "*Denkmal der Schrift Jacobi's von den göttlichen Dingen und der ihm in derselben gemachten Beschuldigung eines absichtlich täuschenden, Lüge redenden Atheismus*" (Tübingen, 1812), Schelling repels the charge that his philosophy is naturalism, Spinozism, and atheism. He says that God is for him both Alpha and Omega, first and last, the former as *Deus implicitus*, impersonal indifference; the latter as *Deus explicitus*, God as personality, as subject of existence. A theism not recognizing the "ground" or nature in God, argues Schelling, is impotent and vain. Against the identity of pure theism with the essential in Christianity, as asserted by Jacobi, Schelling argues bitterly, maintaining that the irrational and mystical is the truly speculative.

The work on the "Divinities of Samothrace" (*Ueber die Gottheiten von Samothrake*, Stuttgart and Tübingen, 1815), which was to form a supplement to the *Ages of the World* (which were not, however, published with it), is an allegorical interpretation of those divinities as representing the different *momenta* in God, as described in Schelling's work on Freedom.

After a long silence Schelling published in 1834 a Preface to Hubert Becker's translation of a work by Victor Cousin (on French and German Philosophy, contained in the *Fragmens Philosophiques*, Par., 1833). Schelling here describes the Hegelian philosophy as being merely negative, as substituting for the living and real the logical concept, divested of all empirical elements, and, by a most singular fiction or hypostatization, ascribing to the concept the power of self-motion, which belongs only to that for which the concept is substituted. The same criticism, substantially, is made by Schelling in his Munich lectures on the "History of Modern Philosophy" (*Zur Geschichte der neueren Philosophie*, published posthumously in vol. 10 of the first division of his *Complete Works*). He censures the presentation of the most abstract conceptions (being, nothing, becoming, existence, etc.) before natural and mental philosophy, on the ground that the abstract presupposes that from which it is abstracted, and that conceptions exist only in consciousness, hence only in the mind, and cannot precede nature and mind as their condition, nor potentiate themselves, and finally, by externalizing themselves, become Nature. In his *Opening Lecture at Berlin* (Stuttgard and Tübingen, 1841), Schelling declared that he did not reject the discovery of his youth, the System of Identity, which Hegel had only reduced to abstract logical form, but that he would have it, as being negative philosophy, supplemented by positive philosophy. This positive philosophy, which by the aid of experience was to advance beyond merely rational science, was particularly the philosophy of Mythology and Revelation, *i. e.*, of imperfect and perfect religion. The lectures on the Philosophy of Religion, delivered at the University of Berlin, were published after Schelling's death in the second division of his *Complete Works*. The substance of them had been previously given to the public, however, from notes taken in the class-room, by Frauenstädt (*Schelling's Vorlesungen in Berlin*, Berlin, 1842), and Paulus (*Die endlich offenbar gewordene positive Philosophie der Offenbarung, der allgemeinen Prüfung dargelegt von H. E. G. Paulus*, Darmstadt, 1843). These Lectures contain, substantially, only a farther development of the speculations begun in the work on Freedom. Positive philosophy, says the author, does not seek to prove the existence of God from the idea of God, but rather, setting out with the facts of existence, to prove the divinity of the existent. Schelling distinguishes in God (*a*) blindly necessary or unpremeditating being; (*b*) the three potencies of the divine essence: unconscious will, the *causa materialis* of creation; conscious, considering will, the *causa efficiens;* and the union of both, or the *causa finalis, secundum quam omnia fiunt;* and (*c*) the three persons who proceed from the three potencies by overcoming the element of unpremeditating being through the theogonic process; these persons are the Father, as the absolute possibility of overcoming; the Son, as the overcoming power; and the Spirit, as completion of the overcoming. In nature work only potencies; in man, personalities. Man having, in the use of his freedom, destroyed the unity of the potencies, the second, mediating potency was deprived of its reality, *i. e.*, robbed of its control over the blindly-existing principle, and degraded to a potency operating in purely natural ways. This potency recovers in the consciousness of man its lost authority, and becomes a divine person through the theogonic process, the factors of which are mythology and revelation. The second potency was present in the mythologic consciousness in divine form (ἐν μορφῇ θεοῦ), but divested itself of this form and became man, in order through obedience to become one with the Father and a divine person. Schelling (carrying out the idea of Fichte, that Protestantism bears the Pauline character, but that the Gospel of John, with its conception of the Logos, is the purest expression of Christianity) divides the Christian era into the periods of Petrine Christianity, or Catholicism; of Pauline Christianity, or Protestantism; and, thirdly, of the "Johannean" Church of the Future.*

§ 128. Of Schelling's numerous disciples and kindred spirits, the following are those whose names are most important for the history of philosophy (in giving which we shall begin with those men who most closely followed Schelling, especially in the first form of his doctrine, and then go on to those whose relation to him was more independent, and some of whom exerted, in turn, an influence upon him): Georg Michael Klein, the faithful expositor of the System of Identity; Johann

* This doctrine is in harmony with the general connection of the Kantian System, from which Schelling borrows it; it presupposes the distinction of things-in-themselves from phenomena; Schelling's adoption of it is therefore in contradiction with his previous denial of this its necessary postulate.

* This "Church of the Future" can certainly not be founded on the revived Gnosticism of Schelling, which, like its ancient prototype, substituted phantoms in the place of the conceptions proper to religious philosophy; besides, the assumption is unhistorical, that Catholicism and Protestantism are to each other as Petrinism and Paulinism. The "Gospel of John," by transforming and ante-dating Pauline ideas, prepared the way for that reconciliation which was practically illustrated in the Early Catholic Church. The problems of the future cannot be solved by an actual return to the past, nor can they be correctly indicated by a play of analogies clad with the semblance of such a return.

Jakob Wagner, who continued to maintain the pantheism of the System of Identity in opposition to the Neo-Platonism and mysticism of Schelling's later writings, and who substituted in place of Schelling's trichotomy the quadripartite division; Georg Anton Friedrich Ast, author of meritorious contributions to the history of philosophy, especially of the Platonic philosophy; Thaddæus Anselm Rixner, known by his *Manual of the History of Philosophy;* Lorenz Oken, the naturalist; Nees von Esenbeck, who wrote upon the physiology of plants; Bernhard Heinrich Blasche, the educational writer and religious philosopher; Ignaz Paul Vital Troxler, who deserves mention for his services to the science of cognition, and who in many points differed from Schelling; Adam Karl August Eschenmayer, who taught that philosophy should end in the negation of philosophy, or in religious faith; Joseph Görres, the extreme Catholic and enthusiast; Gotthilf Heinrich von Schubert, the mystical, physical psychologist and cosmologist; Karl Friedrich Burdach, the physiologist and psychologist, who combined with Schelling's natural philosophy a temperate empiricism; Karl Gustav Carus, the gifted psychologist and craniologist; Hans Christian Oersted, the physicist; Karl Wilhelm Ferdinand Solger, writer on æsthetics; Heinrich Steffens, a man of many-sided culture, who finally became an adherent of the strict confessionalism of the Old Lutherans; Johann Erich von Berger, a friend of Steffens, and writer on astronomy and the philosophy of law; Franz von Baader, the theosophist; and Christian Friedrich Krause, the many-sided thinker. The two last-named, as also the theologian Schleiermacher—who received his philosophical impulses especially from the study of Plato, Spinoza, Kant, Fichte, and Schelling—and Hegel, the philosopher, became the founders of new philosophical schools. Friedrich Julius Stahl, the anti-rationalistic theologizing philosopher of law, agreed in his doctrine, more especially with certain of Schelling's later principles (although protesting against the designation of his philosophy in general as "New-Schellingism").

For the purposes of this work it may suffice to name the principal philosophical works of the men named above (with the exception of Hegel and Schleiermacher, whose philosophies are treated of in the sections next following). Those who desire more particular information are referred to the works themselves and to special historical treatises, in particular to Erdmann's General Review (in the second part of his "*Entwickelung der deutschen Speculation seit Kant*," *Gesch. d. n. Ph.*, Vol. III., 2d *Abth.*).

G. M. Klein's (1776–1820) principal work, based entirely on Schelling's writings and lectures, is entitled: *Beiträge zum Studium der Philosophie als Wissenschaft des All, nebst einer vollständigen und fasslichen Darstellung ihrer Hauptmomente*, Würzburg, 1805. Klein also treated specially of logic, ethics, and religion, according to the principles of the System of Identity, in the works: *Verstandeslehre* (Bamberg, 1810), revised edition, entitled *Anschauungs- und Denklehre* (Bamberg and Würzburg, 1818), *Versuch, die Ethik als Wissenschaft zu begründen* (Rudolstadt, 1811), *Darstellung der philosophischen Religions- und Sittenlehre* (Bamberg and Würzburg, 1818).

A similar direction in philosophy, though one more allied to that of Fichte, was followed by Johann Josua Stutzmann (1777–1816) in his *Philosophie des Universums* (Erlangen, 1806), *Philosophie der Geschichte der Menschheit* (Nuremberg, 1808), and other works.

Joh. Jak. Wagner (1775–1821) wrote *Philosophie der Erziehungskunst* (Leipsic, 1802), *Von der Natur der Dinge* (Leipsic, 1803), *System der Idealphilosophie* (Leipsic, 1804), *Grundriss der Staatswissenschaft und Politik* (Leipsic, 1805), *Theodicee* (Bamberg, 1809), *Math. Philosophie* (Erl., 1811), *Organon der menschl. Erkenntniss* (Erl., 1830 and Ulm, 1851), *Nachgelassene Schriften*, ed. by Ph. L. Adam (Ulm, 1853 seq.). On Wagner, see Leonard Rabus, *J. J. Wagner's Leben, Lehre und Bedeutung, ein Beitrag zur Gesch. des deutschen Geistes* (Nuremberg, 1862).

F. Ast (1778–1841) wrote *Handbuch der Aesthetik* (Leipsic, 1805), *Grundlinien der Philosophie* (Landshut, 1807; 2d ed., 1809), *Grundriss einer Geschichte der Philosophie* (Landshut, 1807; 2d ed., 1825), *Platon's Leben und Schriften* (Leipsic, 1816).

Th. Ans. Rixner (1766–1838): *Aphorismen aus der Philosophie* (Landshut, 1809, revised edit., Sulzbach, 1818), *Handbuch der Geschichte der Philosophie* (Sulzbach, 1822–23; 2d ed., *ib.*, 1829; Supplementary Volume, by Victor Philipp Gumposch, *ib.*, 1850).

Lor. Oken (1779–1851) wrote *Die Zeugung* (Bamberg and Würzburg, 1805; in this work the formation of seminal matter is described as taking place by the decomposition of the organism into infusoria, and propagation is described as the flight of the occupant from his falling house), *Ueber das Universum* (Jena, 1808), *Lehrbuch der Naturphilosophie* (Jena, 1809; 3d ed., Zürich, 1843; the animal kingdom, says Oken in this work, is man resolved into his constituent elements; what in the lower stages of animal life are independent antagonisms reappear in the higher as attributes), *Isis, encyclopädische Zeitschrift* (Jena, 1817 seq.).

Nees von Esenbeck (1776–1858): *Das System der speculativen Philosophie*, Vol. I.: *Naturphilosophie* (Glogau and Leipsic, 1842).

B. H. Blasche (1776–1832): *Das Böse im Einklang mit der Weltordnung* (Leipsic, 1827), *Handbuch der Erziehungswissenschaft* (Giessen, 1828), *Philosophie der Offenbarung* (Leipsic, 1829), *Philosophische Unsterblichkeitslehre, oder: wie offenbart sich das ewige Leben?* (Erfurt and Gotha, 1831).

Troxler (1780–1866): *Naturlehre des menschlichen Erkennens* (Aarau, 1828), *Logik, die Wissenschaft des Denkens und Kritik aller Erkenntniss* (Stuttgard and Tübingen, 1829–30), *Vorlesungen über Philosophie, als Encyclopädie und Methodologie der philosophischen Wissenschaften* (Bern, 1835). Cf. Werber, *Lehre von der menschlichen Erkenntniss* (Carlsruhe, 1841).

Eschenmayer (1770–1852): *Die Philosophie in ihrem Uebergange zur Nichtphilosophie* (Erlangen, 1803), *Psychologie* (Tübingen, 1817; 2d ed., *ib.*, 1822), *System der Moralphilosophie* (Stuttgard and Tübingen, 1818), *Normalrecht* (*ib.*, 1819–20), *Religionsphilosophie* (1. *Theil: Rationalismus*, Tübingen, 1818; 2. *Theil: Mysticismus*, *ib.*, 1822; 3. *Theil: Supernaturalismus*, *ib.*, 1824), *Mysterien des innern Lebens, erläutert aus der Geschichte der Seherin von Prevorst* (Tübingen, 1830), *Grundriss der Naturphilosophie*,

(*ib.*, 1832), *Die Hegel'sche Religionsphilosophie* (Tübingen, 1834), *Grundzüge einer christlichen Philosophie* (Basel, 1841).

G. H. Schubert (1780–1860): *Ahndungen einer allgemeinen Geschichte des Lebens* (Leips., 1806–1821), *Ansichten von der Nachtseite der Naturwissenschaft* (Dresden, 1808; 4th ed., 1840), *Die Symbolik des Traumes* (Bamberg, 1814), *Die Urwelt und die Fixsterne* (Dresden, 1823; 2d ed., 1839), *Geschichte der Seele* (Tübingen, 1830; 4th ed., 1847), *Die Krankheiten und Störungen der menschlichen Seele* (Stuttg., 1845).

K. F. Burdach (1776–1847): *Der Mensch nach den verschiedenen Seiten seiner Natur* (Stuttgard, 1836; 2d ed., entitled: *Anthropologie für das gebildete Publicum*, ed. by Ernst Burdach, *ib.*, 1847), *Blicke in's Leben, comparative Psychologie* (Leipsic, 1843–48).

David Theod. Aug. Suabedissen (1773–1835, influenced as much by Kant, Reinhold, and Jacobi, as by Schelling): *Die Betrachtung des Menschen* (Cassel and Leipsic, 1815–18), *Zur Einleitung in die Philosophie* (Marburg, 1827), *Grundzüge der Lehre vom Menschen* (*ib.*, 1829), *Grundzüge der philos. Religionslehre* (*ib.*, 1831), *Grundzüge der Metaphysik* (*ib.*, 1836).

Karl Gust. Carus (born Jan. 3, 1789): *Grundzüge der vergleichenden Anatomie und Physiologie* (Dresden, 1825), *Vorlesungen über Psychologie* (Leipsic, 1831), *System der Physiologie* (Leipsic, 1838–40; 2d. ed., 1847–49), *Grundzüge der Kranioskopie* (Stuttgard, 1841), *Psyche, zur Entwicklungsgeschichte der Seele* (Pforzheim, 1846; 3d ed., Stuttgard, 1860), *Physis, zur Geschichte des leiblichen Lebens* (Stuttgard, 1851), *Symbolik der menschlichen Gestalt* (Leipsic, 1853; 2d ed., 1857), *Organon der Erkenntniss der Natur und des Geistes* (Leipsic, 1855), *Vergleichende Psychologie oder Geschichte der Seele in der Reihenfolge der Thierwelt* (Vienna, 1866). Cf. Carus' *Lebenserinnerungen und Denkwürdigkeiten* (Leips., 1865).

Hans Christian Oersted (1777–1851): *Der Geist in der Natur* (Copenhagen, 1850–51; German translation, Leipsic, 1850, etc. [*The Soul in Nature*, English translation in Bohn's "Scientific Library."—*Tr.*]), *Neue Beiträge zu dem G. i. d. N.* (Germ. Lps. '51), *Gesammelte Schriften* (Germ. trans. 6 vols., by Kannegiesser, Leipsic, 1851–53).

K. W. Ferd. Solger (1780–1819): *Erwin, vier Gespräche über das Schöne und die Kunst* (Berlin, 1815), *Philosophische Gespräche* (Berlin, 1817), *Nachgelassene Schriften und Briefwechsel*, ed. by Ludwig Tieck and Friedrich von Raumer (Leipsic, 1826), *Vorlesungen über Aesthetik*, ed. by K. W. L. Heyse (Berlin, 1829).

H. Steffens (1773–1845): *Recension von Schelling's naturphilosophischen Schriften* (written in 1800, publ. in Schelling's *Journal of Speculative Physics*, Vol. 1, No. 1, pp. 1–48, and No. 2, pp. 88–121), *Ueber den Oxydations- und Desoxydationsprocess der Erde* (*ib.*, No. 1, pp. 143–168), *Beiträge zur innern Naturgeschichte der Erde* (Freiberg, 1801), *Ueber die Idee der Grundzüge der philosophischen Naturwissenschaft* (Berlin, 1806), *Ueber die Idee der Universitäten* (Berlin, 1809), *Caricaturen des Heiligsten* (Leipsic, 1819–21), *Anthropologie* (Breslau, 1822), *Von der falschen Theologie und dem wahren Glauben* (Breslau, 1823), *Wie ich wieder Lutheraner ward und was mir das Lutherthum ist* (*ib.*, 1831; against the union of the Calvinistic and Lutheran churches), *Polemische Blätter zur Beförderung der speculativen Physik* (Breslau, 1829, 1835), *Novellen* (Breslau, 1837–38), *Christl. Religionsphilosophie* (Breslau, 1839), *Was ich erlebte* (Breslau, 1840–45; 2d ed., 1844–46. [Of this work, Steffens's Autobiography, parts have been translated and published by W. L. Gage, under the title: *The Story of my Career*. Boston: Gould and Lincoln, 1863.—*Tr.*]), *Nachgelassene Schriften*, with a Preface by Schelling (Berlin, 1846). Steffens exerted a great influence especially on Braniss.

J. E. v. Berger (1772–1833): *Philosophische Darstellung der Harmonie des Weltalls* (Altona, 1808), *Allgemeine Grundzüge der Wissenschaft* (4 vols.; 1, Analysis of the cognitive faculty; 2, On the philos. comprehension of nature; 3, Anthropology; 4, Practical philosophy, Altona, 1817–27). Cf. H. Ratjen, *Joh. Erich von Berger's Leben* (Altona, 1835).

Franz Baader (subsequently raised to the rank of the nobility; born March 27, 1765, at Munich, where he died May 23, 1841; his biography, written by Franz Hoffmann, is included in the 15th vol. of the complete edition of his Works, and also published separately, Leips., 1857), who combined with the study of medicine and mining that of philosophy and mathematics, and was especially familiar with Kant's works, as also, at a later period, with Fichte's and Schelling's, and with those of Jacob Boehme and Louis Claude de St. Martin (of his relation to Boehme, Bamberger treats in the 13th vol. of Baader's *Complete Works*, and of his relation to St. Martin, Fr. v. Osten-Sacken treats in vol. 12 of the same), exerted on the development of Schelling's natural philosophy a not inconsiderable, and on that of Schelling's theosophy an essentially determining influence, while he, on the other hand, was himself furthered in the development of his own speculation by the study of Schelling's doctrine. Baader's speculation, like Schelling's, is characterized by the absence of rigid demonstration, and by the prevalence in it of the fanciful; pupils of Baader, such as Hoffmann, have sought to remove these defects, in so far as they arise from Baader's aphoristic style, but have not been able thereby to show that his conceptions themselves are scientifically necessary. Our knowledge is, according to Baader, a joint knowledge (*conscientia*) with the divine knowledge, and hence neither comprehensible apart from the latter nor yet to be identified with it. From the immanent, esoteric, or logical vital process in God, through which God issues from his unrevealed state, must be distinguished the emanent or exoteric or real process, in which God, by overcoming the eternal nature or the principle of selfhood, becomes tripersonal; and, still further, from both processes must be distinguished the act of creation, in which God comes together in final union, not with himself, but with his image. In consequence of the fall of man, man was placed by God in time and space, in order that by accepting salvation in Christ, he might recover immortality and salvation; or, in case of his non-acceptance of salvation, be subjected to punishment for his purification, either in this life or in Hades, or in the pit of hell. Souls in Hades may still be redeemed, but not souls in hell. Time and matter will cease; after the cessation of the "region of time," it remains still possible for the creature to pass from the eternal region of hell into the eternal region of heaven—but the reverse is not true. Baader was unfriendly to the papacy, but adhered to Catholicism, and censured the founders of Protestantism for having been not reformers, but revolutionists. Baader's "Contributions to Elementary Physiology" (*Beiträge zur Elementarphysiologie*, Hamb., 1797) were drawn upon by Schelling in his works on natural philosophy. Schelling's work on the "World-Soul" led to the composition by Baader of his work on the "Pythagorean Square in Nature or the four World-Regions" (Tübingen, 1798), from which, in turn, Schelling borrowed much in his *First Sketch of a System of Natural Philosophy* (1799) and in his *Journal of Speculative Physics*. Soon after this, Baader, chiefly in oral intercourse with Schelling, directed the attention of the latter to the theosophist Jacob Boehme. A collection of articles by Baader are the "Contributions to Dynamical Philosophy" (*Beiträge zur dynamischen Philosophie*, Berlin, 1809). In the "*Fermenta Cognitionis*" (1822–25) Baader combats the philosophies prevalent in his time, and recommends the study of Jacob Boehme. The Lectures delivered at the University in Munich on *Speculative Dogmatics* appeared in print, in five parts, in 1827–38. The works of Baader published in his lifetime and his posthumous remains have been collected together by Baader's most distinguished disciple, Franz

Hoffmann (author of *Speculative Entwickelung der ewigen Selbsterzeugung Gottes, aus Baader's Schriften zusammengetragen*, Amberg, 1835; *Vorhalle zur speculativen Philosophie Baader's*, Aschaffenburg, 1836; *Grundzüge der Societätsphilosophie von Franz Baader*, Würzburg, 1837; *Franz von Baader als Begründer der Philosophie der Zukunft*, Leipsic, 1856, and other works), with the aid of J. Hamberger, von Schaden, Schlüter, Lutterbeck, and von Ostensacken, in a complete edition, with Introductions and Annotations: "*Franz von Baader's sämmtliche Werke*," 16 vols., Leipsic, 1851–60; the Introduction, entitled an "Apology for Baader's Natural Philosophy in reply to direct and indirect Attacks of Modern Philosophy and Natural Science," has also been published separately, Leips., 1852. Hoffmann has also published *Die Weltalter, Lichtstrahlen aus Baaders Werken*, Erlangen, 1868. Cf. J. A. B. Lutterbeck, *Ueber den philosophischen Standpunkt Baader's*, Mayence, 1854 (cf. also Lutterbeck's *Die neutest. Lehrbegriffe*, Mayence, 1852); Hamberger, *Die Cardinalpunkte der B.'schen Philosophie*, Stuttgard, 1855; *Christenthum und moderne Cultur*, Erlangen, 1863; *Physica Sacra, oder Begriff der himmlischen Leiblichkeit*, Stuttgard, 1869; Theod. Culman, *Die Principien der Philosophie Franz von B.'s und E. A. von Schaden's*, in the *Zeitschrift f. Ph.*, Vol. 37, 1860, pp. 192–226, and Vol. 38, 1861, pp. 73–102; Franz Hoffmann, *Beleuchtung des Angriffs auf B. in Thilo's Schrift: "Die theologisirende Rechts- und Staatslehre,"* Leipsic, 1861; *Ueber die B.'sche und Herbart'sche Philosophie*, in the *Athenæum* (philos. journal edited by Frohschammer), Vol. 2, No. 1, 1863; *Ueber die B.'sche und Schopenhauer'sche Philosophie, ibid.*, No. 3, 1863; Franz Hoffmann, *Philos. Schriften*, Erlangen, 1868; K. Ph. Fischer, *Zur hundertjährigen Geburtstagsfeier B.'s: Versuch einer Charakteristik seiner Theosophie und ihres Verhältnisses zu den Systemen Schelling's und Hegel's, Daub's und Schleiermacher's*, Erlangen, 1865; Lutterbeck, *Baader's Lehre vom Weltgebäude*, Frankfort, 1866; Hamberger, *Versuch einer Charakteristik der Theosophie Franz Baader's* in *Theol. Studien u. Kritiken*, 1867, No. 1, pp. 107–123 [translated by G. S. Morris in the *American Presbyterian and Theological Review*, edited by Dr. H. B. Smith and others, 1869.—*Tr.*]; Alexander Jung, *Ueber Baader's Dogmatik als Reform der Societätswissenschaft*, Erlangen, 1868.

K. Chr. Fr. Krause (1781–1832), who himself limited the circulation of his philosophical writings among Germans by his strange terminology, which was put forward as purely German, but was in fact un-German, sought to improve upon the pantheism of the System of Identity by developing a doctrine of Panentheism, or a philosophy founded on the notion that all things are in God. He wrote on all the branches of philosophy. His works are the following: *Grundlage des Naturrechts oder philosophischer Grundriss des Ideales des Rechts* (Jena, 1803), *Entwurf des Systems der Philosophie* (1. *Abth.: allgemeine Philosophie und Anleitung zur Naturphilosophie*, Jena, 1804), *System der Sittenlehre* (Leipsic, 1810), *Das Urbild der Menschheit* (Dresden, 1812; 2d ed., Gött., 1851), *Abriss des Systems der Philosophie* (1. *Abth.: analytische Philosophie*, Göttingen, 1825), *Abriss des Systems der Logik als philosophischer Wissenschaft* (Göttingen, 1825; 2d ed., 1828), *Abriss des Systems der Rechtsphilosophie* (Göttingen, 1828), *Vorles. über das Syst. der Philos.* (*ib.*, 1828, 2d ed., Prague, 1868), *Vorlesungen über die Grundwahrheiten der Wissenschaft* (*ib.*, 1829; 2d ed., 1869). His Posthumous Works have been published by a number of his pupils (von Leonhardi, Lindemann, and others). Cf. H. S. Lindemann: *Uebersichtliche Darstellung des Lebens und der Wissenschaftslehre Karl Christian Friedrich Krause's und dessen Standpunktes zur Freimaurerbrüderschaft*, Munich, 1839. His most distinguished pupils have been Henry Ahrens, philosopher of law and author of *Cours de Droit Naturel* (Paris, 1838; frequently reprinted in French and German), *Naturrecht oder Philos. des Rechts u. Staates* (6th ed., Vienna, 1870), *Juristische Encyclopädie* (*ib.*, 1858), and of *Cours de Philos.* (Paris, 1836–38), and *Cours de ph. de l'hist.* (Brus., 1840), and Tiberghien, pupil of Ahrens and author of *Essai théorique et historique sur la génération des connaissances humaines dans ses rapports avec la morale, la politique et la réligion* (Paris et Leips., 1844), *Esquisse de philosophie morale, précédée d'une introd. à la métaphysique* (Brussels, 1854), *La science de l'âme dans les limites de l'observation* (*ib.*, 1862; 2d ed., 1868), *Logique, la science de la connaissance* (Paris, 1865). Krause's pupil, H. S. Lindemann, has published, besides the above-mentioned work on Krause, works on Anthropology (Zürich, 1844, and Erlangen, 1848) and Logic (Solothurn, 1846). Also Altmeyer, Bouchitté, Duprat, Hermann Freiherr von Leonhardi, Mönnich, Röder (*Grundzüge des Naturrechts oder der Rechtsphilosophie*, Heidelberg, 1846; 2d ed., 1863), Schliephake (*Die Grundlagen des sittl. Lebens*, Wiesbaden, 1855; *Einleitung in das System der Philosophie*, Wiesbaden, 1856), J. S. Del Rio, the Spaniard (who published in 1860, at Madrid, Krause's *Ideal of Humanity*, translated into Spanish and accompanied with explanatory notes, and Krause's *Outline of the System of Philosophy*), and others belong to the school of Krause.

Friedrich Julius Stahl (1802–1861: *Die Philosophie des Rechts, nach geschichtlicher Ansicht*, Heidelberg, 1830–37; 3d ed., 1854–56; the first volume contains the "Genesis of the Current Legal Philosophy," or, according to the title of the 2d and 3d editions, the "History of Legal Philosophy;" the second contains the "Christian Theory of Right and of the State," or, as it is entitled in the second edition, "Doctrine of Right and the State on the Basis of the Christian Conception of the World"), the theologizing legal philosopher, received from New-Schellingism not unimportant impulses. To the Neo-Schellingian School belongs Wilh. Rosenkrantz (author of *Die Wissenschaft des Wissens*, Munich, 1866–69).

§ 129. Georg Wilhelm Friedrich Hegel (1770–1831), developing the principle of identity postulated by Schelling, and subjecting it to the forms of demonstration according to Fichte's method of dialectical development, created the System of Absolute Idealism. According to this system finite things are not (as in the System of Subjective Idealism) simply phenomena for us, existing only in our consciousness, but are phenomena *per se* by their very nature, *i. e.*, things having the ground of their being not in themselves, but in the universal divine Idea. The absolute reason is revealed in nature and spirit (mind), since it not only underlies both, as their substance, but also, as rational Subject, returns through them—by means of a progressive development from the lowest to the highest stages—from its state of self-alienation to itself. Philosophy is the science of the absolute. Since it is *thinking* consideration of the self-unfolding of the absolute reason, it has for its necessary form the dialectical method, which reproduces in the consciousness of the thinking Subject the spontaneous movement of the object (content) of thought. The absolute reason alienates, externalizes itself, becomes the other of itself, in nature, and returns from this its *otherness*, or self-estrangement, into itself, in Spirit. Its

self-development is therefore threefold, namely: (1) in the abstract element of thought, (2) in nature, (3) in spirit—following the order: thesis, antithesis, synthesis. Philosophy has, accordingly, three parts: (1) Logic, which considers reason in itself as the *prius* of nature and spirit, (2) the Philosophy of Nature, (3) the Philosophy of Spirit. In order to raise the thinking Subject to the stand-point of philosophical thinking, the Phenomenology of Spirit, *i. e.*, the doctrine of the stages of development of consciousness as forms of the manifestation of spirit, can be placed propædeutically before the system, while retaining, nevertheless, its place as a branch of a philosophical science within the System, namely, as a branch of the Philosophy of Spirit. Logic considers the self-movement of the Absolute from the most abstract conception, the conception of pure being, to the most concrete of those conceptions which precede its division into nature and spirit, *i. e.*, to the absolute Idea. Its parts are: the doctrines of Being, of Essence, and of Conception. The Doctrine of Being is divided into the sections: quality, quantity, measure; in the first, pure being, nothing, and becoming are considered as factors or "momenta" of being; then definite being is opposed to pure being, and in being-for-self [independent being] is found the reconciling factor, which leads to the transition of quality into quantity. The momenta of Quantity are: pure quantity, quantum, and degree; the unity of quality and quantity is Measure. The Doctrine of Essence treats of essence as the ground of existence, then of its manifestation, or of phenomena, and finally of reality as the unity of essence and phenomenon; under the conception of reality Hegel subsumes substantiality, causality, and reciprocity. The Doctrine of Conception treats of the subjective conception—which Hegel divides into the conception as such, the judgment, and the syllogism—of the Objective—under which Hegel comprehends Mechanism, Chemism, and Teleology—and of the Idea, which dialectically unfolds itself as life, cognition, and absolute Idea. The Idea emits nature from itself by passing over into its other [*Anderssein*]. Nature strives to recover its lost union with the Idea; this union is recovered in spirit, which is the goal and end of nature. Hegel considers the stages of natural existence in three sections, entitled Mechanics, Physics, and Organics; the latter treats of the organism of the earth, of the plant, and of the animal. That which is highest in the life of the plant is the process of generation, by which the individual, while negatived in its immediate individuality, is elevated into the genus.

In the animal nature, there is not only the actual external existence of individuals, but this individuality is also self-reflected in itself, a self-contained, subjective universality. The separate being of the parts of space in material objects is not true of the soul, which is therefore not present at any one point alone, but everywhere at millions of points. But the subjectivity of the animal is not subjectivity for self, not pure, universal subjectivity. It does not think itself; it only feels itself, views itself; it is objective to itself only in a distinct, particular state. The presence of the Idea *with* itself [*das Beisichsein der Idee*], freedom, or the Idea returned from its *alterity* into itself, is Spirit. The Philosophy of Spirit has three parts: the doctrines of subjective, of objective, and of absolute spirit. Subjective Spirit is spirit in the form of relation to self, or spirit, to which the ideal totality of its Idea, *i. e.*, of its conception, has become inwardly real. Objective Spirit is spirit in the form of reality, reality being here understood in the sense of a world to be brought into being by spirit, and indeed thus brought forth, and in which freedom exists in the form of present necessity. Absolute Spirit is spirit in the absolute, independent, and eternally self-producing unity of its objectivity and its ideality or its conception, or spirit in its absolute truth. The principal stages of subjective spirit are natural spirit, or soul, consciousness, and spirit as such; Hegel terms the corresponding divisions of his doctrine Anthropology, Phenomenology, and Psychology. Objective Spirit is realized in legal right, morality, and ethicality [*Sittlichkeit*, concrete or social morality], which latter unites in itself the two former, and in which the person recognizes the spirit of the community, the ethical substance in the family, in civil society, and in the State, as his own essence. Absolute spirit includes art—which expresses the artist's concrete perception of the truly absolute spirit as the ideal in the concrete shape generated by the subjective spirit, the shape of beauty—religion, which is the true in the form of mental representation (*Vorstellung*) and philosophy, which is the true in the form of truth.

Of Hegel's life treat Karl Rosenkranz (*Georg Wilh. Friedrich Hegel's Leben, Supplement zu Hegel's Werken*, Berlin, 1844) and R. Haym (*Hegel und seine Zeit, Vorlesungen über Entstehung und Entwicklung, Wesen und Werth der Hegel'schen Philosophie*, Berlin, 1857), the former with affectionate attachment and veneration, the latter with sharp, unsparing criticism, directed notably against the anti-liberal elements in Hegel's character and doctrine (especially in his philosophy of law). Cf., *per contra*, Rosenkranz's *Apologie Hegel's gegen Haym*, Berlin, 1858.

Hegel's Works appeared soon after his death in a complete edition, entitled *G. W. F. Hegel's Werke, vollständige Ausgabe durch einen Verein von Freunden des Verewigten*, Vols. I.–XVIII., Berlin, 1832 seq.; single volumes have been since reissued. Vol. I.: *Hegel's philos. Abhandlungen*, ed. by Karl Ludw. Michelet, 1832. Vol. II.: *Phänomenologie des Geistes*, ed. by Joh. Schulze, 1832. Vols. III.–V.: *Wissenschaft der*

Logik, ed. by Leopold von Henning, 1833–34. Vols. VI.–VII.: *Encyclopädie der philosophischen Wissenschaften im Grundrisse* (Vol. VI.: *Der Encycl. erster Theil, die Logik*, edited, annotated, and supplemented, under the guidance of Hegel's lectures, by Leop. von Henning, 1840; Vol. VII., 1st Part: *Vorlesungen über die Naturphilosophie als der Encycl. der philos. Wissenschaften zweiter Theil*, ed. by K. L. Michelet, 1842; Vol. VII., 2d Part: *Der Encycl. dritter Theil, die Philosophie des Geistes*, ed. by Ludw. Boumann, 1845). Vol. VIII.: *Grundlinien der Philosophie des Rechts oder Naturrecht und Staatswissenschaft im Grundrisse*, ed. by Eduard Gans, 1833. Vol. IX.: *Vorlesungen über die Philosophie der Geschichte*, ed. by Ed. Gans, 1837 (second edition edited by Hegel's son, Karl Hegel). Vol. X., Parts 1–3: *Vorlesungen über die Aesthetik*, ed. by H. G. Hotho, 1835–38. Vols. XI.–XII.: *Vorlesungen über die Philosophie der Religion, nebst einer Schrift über die Beweise vom Dasein Gottes*, ed. by Philipp Marheineke. 1832 (second ed. by Bruno Bauer). Vols. XIII.–XV.: *Vorlesungen über die Geschichte der Philosophie*, ed. by Karl Ludw. Michelet, 1833–36. Vols. XVI.–XVII.: *Vermischte Schriften*, ed. by Friedrich Förster and Ludwig Boumann, 1834–35. Vol. XVIII.: *Philosophische Propädeutik*, ed. by Karl Rosenkranz, 1840.

Systematic compilations of extracts from Hegel's writings have been published by Frantz and Hillert (*Hegel's Philosophie in wörtlichen Auszügen*, Berlin, 1843), and Thaulow (*Hegel's Aeusserungen über Erziehung und Unterricht*, Kiel, 1854), the latter accompanied with numerous notes. *Kritische Erläuterungen des Hegel'schen Systems* (Königsberg, 1843) is a work by Rosenkranz. An end similar to that of Rosenkranz's work (the critical exposition of Hegel's meaning) is served by the prefaces of the editors of his *Works*, by Erdmann's and Michelet's accounts of the Hegelian system in their Histories of Modern Philosophy, and by many other works. Translations of several of Hegel's works have been published in different languages, particularly in French and Italian. [Translations in English: *The Subjective Logic of Hegel*, translated by H. Sloman and J. Wallon, 1855 (a part of Hegel's Logic); *Lectures on the Philosophy of History*, by G. W. F. Hegel, translated by J. Sibree, A.M. (in Bohn's Philos. Library). London, 1861. Numerous translations from Hegel's works have been published in the *Journal of Speculative Philosophy*, ed. by W. T. Harris, Vols. I.–V., St. Louis, 1867–1871, as follows: *Hegel's Phenomenology of Spirit*, with accompanying analysis, Vol. II., pp. 94–103, 165–171, 181–187, 229–241: *Outlines of Hegel's Phenomenology* (transl. from H.'s *Propaedeutik*), Vol. III., pp. 166–175; *Outlines of Hegel's Logic* (from the same), Vol. III., pp. 257–281; *Hegel's First Principle* (Exposition and Translation), Vol. III., pp. 344–372: *Hegel's Science of Rights, Morals, and Religion* (from the *Propaedeutik*), Vol. IV., pp. 38–62, 155–192; *Hegel on the Philosophy of Plato* (transl. from H.'s History of Philosophy) Vol. IV., pp. 225–268, 320–380; *Hegel on the Philos. of Aristotle* (from the same, with Commentary by Translator), Vol. V., pp. 61–78, 180–192, 251–274; *Hegel's Philos. of Art—Chivalry* (transl. by Miss S. A. Longwell), V., pp. 368–373. Cf. further *Bénard's Analysis and Critical Essay upon the Æsthetics of Hegel*, translated by J. A. Merling, *Journ. of Spec. Philos.*, I., pp. 36–52, 91–114, 169–176, 221–224; II., 39–46, 157–165; III., 31–46, 147–166, 281–287, 317–336; *Introduction to H.'s Encyclopædia of the Philos. Sciences* (translated from the German of K. Rosenkranz, by T. Davidson), Vol. V., pp. 234–251; J. E. Cabot, *Hegel*, in the *North Am. Review*, 1863, April; Analysis of Cabot's article by Anna C. Brackett, in *J. of Sp. Philos.*, V. 38–48.—*Tr.*] A very searching criticism of the Hegelian Logic is that by Trendelenburg in his *Logische Untersuchungen*; the same subject, as also the whole doctrine of Hegel, has likewise been discussed from various standpoints by Hegelians and Anti-Hegelians in numerous works, some of which will be mentioned below. Cf. also, among other works, Theod. Wilh. Danzel, *Ueber die Aesthetik der Hegel'schen Philosophie*, Hamburg, 1844; Ant. H. Springer, *Die Hegel'sche Geschichtsanschauung*, Tübingen, 1848; Aloys Schmid (of Dillingen), *Entwickelungsgeschichte der Hegel'schen Logik*, Regensburg, 1858; Paul Janet, *Etudes sur la dialectique dans Platon et dans Hégel*, Paris, 1860; Friedr. Reiff, *Ueber die Hegel'sche Dialektik*, Tübingen, 1866; E. von Hartmann, *Ueber die dialektische Methode*, Berlin, 1868. A critical account of the System is contained in J. H. Stirling's work: *The Secret of Hegel, being the Hegelian System in origin, principle, form, and matter*, 2 vols., London, 1865. A. Vera has translated into French and annotated Hegel's *Logic*, *Philosophy of Nature*, and *Philos. of Mind* (Paris, 1859, 1863–1866, 1867), and also written several works from the Hegelian stand-point, among others, an *Essai de philosophie hégélienne*, Paris, 1864. (Cf. Karl Rosenkranz, *Hegel's Naturphilosophie und die Bearbeitung derselben durch den ital. Philos. A. Vera*, Berlin, 1868). Other Italians who have written on Hegelianism are A. Galasso (Naples, 1867), G. Prisco (Naples, 1868), and G. Allievo (Milan, 1868).—Karl Rosenkranz, *Hegel als deutscher Nationalphilosoph*, Leipsic, 1870. [Cf. also the article, entitled *Hegel, was he a Pantheist?* in the *Amer. Church Review*, Vol. 21, pp. 382 seq.; T. C. Sandars, *Hegel's Philosophy of Right*, in *Oxford Essays*, 1855, pp. 213–230; F. Harms, *Zur Erinnerung an Hegel* (a discourse at University of Berlin, June 3, 1871); T. C. Simon, *H. and Brit. Thought*, in *Cont. Rev.*, 1870; Art. Hegel, in Appleton's *New Am. Cycl.* by Henry B. Smith.—*Tr.*]

Georg Wilhelm Friedrich Hegel, born at Stuttgard, August 27, 1770, was the son of an officer of the ducal government (Secretary of the Exchequer, afterwards "Dispatch-Councillor"). He studied at the national university at Tübingen as a member of the

charitable foundation, going through the philosophical course in the years 1788–90, and the theological in 1790–93. For the degree of Magister in Philosophy he wrote essays on the "Judgment of the Common Understanding concerning Objectivity and Subjectivity," and on the "Study of the History of Philosophy," and defended a dissertation written by A. F. Boek, Professor of Philosophy and Eloquence, "*De limite officiorum humanorum sepositu animorum immortalitate*," a subject which (as appears from a manuscript of Hegel's of the year 1795) gave him afterwards, also, much occasion for thought. For the rank of Candidate in Theology he defended the dissertation of Chancellor Le Bret, "*De ecclesiæ Wirtembergicæ renascentis calamitatibus.*" (Of Hegel's theological development in this and the next succeeding period Zeller has written in the fourth volume of the *Theol. Jahrbücher*, Tüb., 1845, p. 205 seq.) The strictly biblical supranaturalist Storr was at that time Professor of Dogmatics; with him worked Flatt, who was of like sentiment with Storr, and also Schnurrer and Rösler, the more rationalizing Professors of Exegesis and Church History. The reading of the works of Kant, Jacobi, and other philosophers, and also of Herder, Lessing, and Schiller, his friendship for Hölderlin, the enthusiastic student of Hellenic antiquity, and the sympathy with which he, like Schelling and others of his fellow-students, followed the events of the French Revolution, seem to have occupied him more than his prescribed studies, as may be inferred from the certificate with which he left the University, which praised only his talents, not his acquirements (not even his philosophical acquirements). He continued his theological and philosophical studies industriously during his engagement as a family-tutor in Berne; at the same time he was engaged in an animated correspondence with Schelling, who was still studying at the Tübingen foundation. Of special importance for the comprehension of the course of his mental development is the *Life of Jesus*, written by him in the spring of 1795, which is preserved in manuscript, and from which Rosenkranz and Haym have published extracts. Lessing's distinction between Jesus' personal conception of religion and the dogmas of the Christian church underlies Hegel's work. That it was not so much motives of purely historical reference as rather the need and desire of finding his own stand-point at that time justified in the life and teachings of Jesus, that made this distinction of worth to him, appears from the manner in which he practically developed it. Judaism, says Hegel here, represents the moralism of the Kantian categorical imperative, which Jesus overcomes through love, the "synthesis in which the law loses its universality, the individual his particularity, and both lose their opposition, while in the Kantian conception of virtue this opposition remains." Yet Hegel points out at the same time the pathological element involved in mere love and its dangers. Fate consists in confinement to a definite spiritual direction; Jesus, through his principle of love, worked in opposition not to single sides of the Jewish fate, but to this fate itself. The biblical statements respecting the unity of the divine and human natures in Christ are interpreted by Hegel as resting on the idea that only reflection, which divides life, distinguishes it into infinite and finite; apart from reflection, or in truth, this separation is unreal. Hegel speaks very severely against this separation, which falsely objectifies the Deity; it advances, he says, at an equal pace with the corruption and slavery of men, of which it is only the revelation. Hegel explains the victory of the dogmatized churchly Christianity, which ruled in the last centuries of antiquity, by reference to the bondage to which the Roman world-empire had reduced the previously independent States. To the citizen of the ancient States the republic was his "soul," was hence the eternal. But the individual, when no longer free, and when estranged from the universal interests of the body politic, looked only upon himself. The right of the citizen gave him only a right to security in

his possessions, which now filled up his entire world. Death, which tore down the whole fabric of his aims, could not but seem frightful to him. Thus man saw himself compelled by his "unfreedom" and misery to save his Absolute in the Deity, and to seek and expect happiness in heaven; a religion could not but be welcome which, by giving the name of suffering obedience to the ruling spirit of the times, to moral impotence, to disgrace, to the submissive disposition which suffered without repining the being trampled under foot, stamped them with the marks of honor and of the highest virtue. The radicalism of this youthful opposition to traditional notions is present as a repressed but unextirpated element in Hegel's later, more conservative religious philosophy—an element which by a number of Hegel's pupils (most radically by Bruno Bauer) has been again brought into independent prominence and farther developed.

After a three years' stay in Switzerland Hegel returned to Germany, and in January, 1797, became tutor in a private family in Frankfort-on-the-Maine. Here, as to some extent had already been the case in Berne, political studies occupied his leisure hours, in addition to his studies in theology, which were also not neglected. In the year 1798 Hegel wrote a small work, which has never been printed, on the Internal Political Conditions of Wurtemberg (*Ueber die neuesten inneren Verhältnisse Wirtembergs, besonders über die Gebrechen der Magistratsverfassung*), as supplementary to which another, on the Constitution of the German Empire, was written by him after Feb. 9, 1801, hence during his residence in Jena, whither he removed in January, 1801. The ideal of his youthful age had now (as he wrote to Schelling on the 2d of November, 1800) taken on the forms of reflection and been changed into a system; Hegel had worked up the subjects of logic and metaphysics, and in part the philosophy of nature also, in manuscript, intending to add a third part on ethics. It was at Jena, in 1801, that Hegel's first work was published, on the *Difference between Fichte's and Schelling's Systems of Philosophy*. The system of Fichte, says Hegel here, is subjective Idealism, while that of Schelling is subjective-objective, and hence absolute Idealism. The fundamental thought in Schelling's system is that of the absolute identity of the subjective and the objective; in his philosophy of nature and transcendental philosophy the Absolute is construed in the two necessary forms of its existence. Hegel confesses his adhesion to the standpoint of Schelling. After Hegel's habilitation, for which he wrote the dissertation *De Orbitis Planetarum*, he worked together with Schelling for the propagation of the System of Identity, both in his position as an academical instructor and (1802–1803) as co-editor of the *Critical Journal of Philosophy* (mentioned above in the account of Schelling's philosophy), to which he made the greater number of contributions. At the same time Hegel elaborated the third part of his system, the part relating to ethics, or the System of Morality (*System der Sittlichkeit*), in manuscript, more immediately for use in his lectures; this part was subsequently enlarged and became Hegel's *Philosophy of Spirit*. Gradually Hegel became more conscious of his divergence from Schelling, especially after the latter (in the summer of 1803) had left Jena and direct personal intercourse with him was no longer possible. He indicates sharply and incisively the details of his divergence in his "Phenomenology of Spirit" (*Phaenomenologie des Geistes*), a comprehensive work, which was completed in the year 1806. Soon [1806] Hegel himself left Jena in consequence of the events of the war, giving up the extraordinary professorship to which he had been appointed in February, 1805, and editing for a time the *Bamberger Zeitung*, until in November, 1808, he was appointed to the directorship of the *Aegidiengymnasium* at Nuremberg. This post he retained till the year 1816. While at Nuremberg he wrote for gymnasial delivery his *Philosophische Propaedeutik*, and also the extensive work—in which Logic and Metaphysics, previously

distinguished by Hegel himself, were united—entitled, "Science of Logic" (*Wissenschaft der Logik*, Nuremberg, 1812–16). In the autumn of 1816, after the recall of Fries from Heidelberg to Jena, Hegel became a professor at the former place. While here, he published a *Judgment on the Transactions of the Wurtemberg Diet in the Years* 1815 *and* 1816 (a defence of the reforms sought by the government), in the *Heidelberger Jahrbücher*, and the "Encyclopædia of the Philosophical Sciences in Outline" (*Encyclopädie der philosophischen Wissenschaften im Grundrisse*, Heidelberg, 1817; 2d, greatly enlarged ed., 1827; 3d ed., 1830; reprinted, with additions from Hegel's lectures, in the complete edition of Hegel's *Works*, Berlin, 1840–45, and published again separately and without additions under the editorship of Rosenkranz, Berlin, 1845; also, with notes by Rosenkranz, Berlin, 1870). On the 22d of October, 1818, Hegel opened his lectures at Berlin; these lectures extended over all the parts of his philosophical system, and were most influential in leading to the foundation of his school. During the Berlin period Hegel published only his work on the philosophy of law (*Grundlinien der Philosophie des Rechts, oder Naturrecht und Staatswissenschaft im Grundrisse*, Berlin, 1821), and wrote for the newly-founded literary organ of Hegelianism, the *Jahrbücher für wissenschaftliche Kritik*. Through the thank-worthy editorship of his pupils, the lectures on the Philosophy of History, Art, and Religion, as also those on the History of Philosophy, after being more or less revised, were published, after the death of Hegel by cholera on the 14th of November, 1831.

The philosophy of Hegel is a critical transformation and development of Schelling's System of Identity. Hegel approves in the philosophy of Schelling this, that it concerns itself with a content, with true, absolute knowledge, and that for it the true is the concrete, the unity of the subjective and objective, in opposition to the Kantian doctrine of the incognoscibility of things-in-themselves, and to Fichte's subjective idealism. But Hegel finds in Schelling a twofold defect: (1) the principle of his system, the absolute identity of the subjective and the objective, is not proved as something necessary, but is only postulated (the absolute is as if "shot from a pistol"); and (2) the advance from the principle of the system to particular propositions is not established as scientifically necessary, so that instead of an exhibition of the successive steps in the self-unfolding of the absolute we find merely an arbitrary and fantastic operating with the two conceptions of the ideal and the real (like a painter having only the two colors, red and green, to employ for animals and landscapes); it is important, adds Hegel, that the absolute be apprehended not simply as the substance underlying all that is individual, but also as the Subject which is self-positing and which restores itself, from the state of *alterity* ("otherness") into which it falls, to renewed identity with itself. Hegel aims therefore, on his part, (1) to elevate consciousness to the stand-point of absolute knowledge, and (2) systematically to develop the entire contents of this knowledge by means of the dialectical method. The first is done in the *Phenomenology of Spirit*, and (more briefly, only the last stages of philosophical knowledge being considered) in the *Introduction to the Encyclopædia*, and the second in the whole system of Logic, Philosophy of Nature, and Philosophy of Spirit.

In the *Phenomenology of Spirit* Hegel sets forth the forms of development of human consciousness as it advances from the stage of direct, unreflecting, unquestioning certainty, through the different forms of reflection and self-alienation, up to absolute cognition. In this phenomenological presentation of the subject Hegel interweaves with each other the histories of the formation of the individual and of the universal spirit. The principal stages are consciousness, self-consciousness, reason, ethical spirit, religion, absolute knowledge. The object of absolute knowledge is the movement of

spirit itself. Absolute, comprehending knowledge pre-supposes the existence of all the earlier stages through which Spirit passes in the course of its development; it is therefore comprehended history; in it all earlier forms are preserved; "from the chalice of *this* realm of spirits infinity pours foaming forth upon its view" (says Hegel at the end of the *Phenomenology* in allusion to Schiller's "*Theosophy of Julius*").

In the *Introduction to the Encyclopædia* Hegel establishes the stand-point of absolute knowledge by a critique of those attitudes of philosophical thought with reference to objectivity which have been exemplified in modern philosophy, in particular those of Dogmatism and Empiricism, of Criticism and of the theory of Immediate Knowledge. Absolute knowledge recognizes thought and being as identical, or (as Hegel expresses himself in the preface to his *Philosophy of Right*) the rational as real and the real as rational.

The System of Philosophy is divided into three principal parts: Logic, which is the science of the Idea in and for itself; the philosophy of Nature, or the science of the Idea in its state of self-alienation (alterity); and the philosophy of Spirit, or the science of the Idea returning from this state into itself. The method is the dialectical, which considers the passing over of each conception into its opposite, and the reconciliation of the opposition, thus developed, in a higher unity. It involves the activity of the understanding, which merely distinguishes differences, and of the negative or skeptical reason, which simply cancels these differences.

Logic is the Science of the pure Idea, that is, of the Idea in the abstract element of thought; it is the science of God or the Logos, in so far as God is viewed simply as the *Prius* of nature and mind (as he is, so to speak, before creation). It falls into three parts: 1, the doctrine of being, or of immediate thought, the conception *per se;* 2, the doctrine of essence, or of thought as reflected and mediated, the independent being and the *appearing* of the conception; and 3, the doctrine of the conception and the idea, or of thought returned into itself and present in developed form with itself, the conception in and for itself.* In the larger work on Logic Hegel terms this latter part Subjective Logic, and the first two parts together Objective Logic.

The point of departure for the dialectical development in the Logic (and hence in the whole philosophical system) of Hegel is pure Being, as the conception which is most abstract, absolutely devoid of content, and therefore identical with Nothing. To Nothing, Being stands in the double relation of identity and difference, although the difference cannot be expressed or specified.† The identity (in the midst of diversity) of Being and Nothing, gives rise to a new and higher conception, which is the higher unity of both, viz., the conception of Becoming. The species of Becoming are origination and decay; its result is determinate being [*Dasein*], being which is identical

* Hegel incorrectly reckons this last doctrine as the third part of his fundamental science or "logic," since it belongs rather, as its definition sufficiently shows, to the science of spirit; but some things which Hegel includes in logic would find their appropriate place in natural philosophy. The Hegelian development of this last part is everywhere obscured by its wavering between the character of a doctrine of forms, which pertain only to the thinking mind, as such, or to nature, as such, and that of a doctrine of forms belonging to all natural and spiritual reality.

† But in reality this difference can be specified as follows: the conception of being is obtained by abstracting all difference in the objects of true conceptions, and retaining only what is identical in them; while in forming the conception of nothing, the former process is carried one step farther, and abstraction is also made of the identical itself. In like manner all the following steps of the Hegelian dialectic may be refuted by sharp distinctions, firmly held fast, and the immanent onward motion or development of pure thought may be shown to be illusory; but it may suffice to refer on this point to Trendelenburg and others. Cf. also my *Syst. of Logic*, §§ 31, 76–80, 83. [Transl. Lond., 1871.]

with negation, or being with a determination which is immediate or which *is*, or, in still other words, being with a quality. Determinate being, as in this its determination reflected into itself, is a something Determinate or simply Something. The basis of all determination is negation (and Hegel cites with approval Spinoza's principle: *omnis negatio est determinatio*). Quality, in its character as *being* determination—determination which *is*, in distinction from the negation contained in, but distinguished from it—is Reality; but the negation is no longer the abstract nothing, but alterity, the being other. The being of quality, as such, in opposition to its relation to some Other, is its being *per se* [*Ansichsein*]. Something becomes Other-thing, because otherness is a *moment* in Something, and this other which it becomes, as a new something becomes in turn still other; but this progress *in infinitum* is arrested by the contradiction that the finite is at once something, and the *other* corresponding to this something; and the contradiction is removed by the consideration, that the something in passing over into its other only comes together with itself, or becomes the other of that other; this relation of something to itself in passing over into its other and in its other is the true infinitude, the restoration of being as negation of negation, or being-for-self [independent being]. With being-for-self the qualification of ideality is introduced. The truth of the finite is its ideality. This ideality of the finite is the fundamental principle of philosophy, and every true philosophy is therefore Idealism. Ideality, as the true infinitude, is the solution of the logical antagonism between the finite and the infinite (of the understanding), which, placed beside the finite, is itself only one of two finites. The *momenta* of being-for-self are the one, the many, and relation (in the form of attraction and repulsion). Quality, owing to the lack of difference between the many ones, passes over into its opposite, Quantity. In the category of quantity the relation of being, determinate being, and being-for-self, is repeated as pure quantity, quantum, and intensive magnitude, or degree. The externality of quantum to itself in its determinate, independent being constitutes its quality. Quantum thus posited as a function of itself is quantitative relation. The quantitative itself in its externality is relation-to-self, or, being-for-self is here united with indifference as to all determinations, and in this sense the quantitative is Measure. Measure is qualitative quantum, the unity of quality and quantity. In this unity Being in its immediate (unmediated) form is sublated, and thereby Essence is posited.

Essence is sublated being, or being mediated with itself, reflected into itself by negation. To essence belong the qualifications of pure reflection, especially identity, difference, and ground (or reason). The logical principles of identity and difference, as one-sided abstractions, through which an independent character is given to mere *momenta* of truth, are tainted with untruth; the speculative truth is the identity of identity and difference, as involved in the conception of *ground* or *reason*. Essence is the ground of existence; in existence the form of directness or immediacy [non-mediation] is restored, or existence is the restoration of being, in so far as it results from the "sublation" of that by which being was previously [in the logico-dialectical development] mediated. Totality, or the development of the qualifications of ground and existence in one subject, constitutes the Thing. A "thing-in-itself," according to Hegel, is an abstraction; it is the mere reflection of the thing into itself—in distinction from its reflection into Other, by virtue of which it has attributes—and conceived as the unqualified basis of these attributes.* The existence of things involves the contradiction between subsist-

* Hegel here gives to this Kantian expression an altered signification, although claiming to report the Kantian signification. Kant did not understand by the "thing-in-itself" the thing without its attributes and apart from *all* relations whatever, but only the thing as it is apart from a specified relation, namely, apart

ence in self and reflection into other, or between matter and form; in this contradiction existence is Manifestation or Phenomenon. Essence must manifest itself. Immediate being, as distinguished from essence, is appearance; developed appearing is manifestation, or the phenomenon. The essence is therefore not behind or transcendent to the phenomenon, but, on the contrary, because it is the essence which exists, existence is phenomenal. The phenomenon is the truth of being, and is a determination of richer content than being, in so far as it contains united in itself the *momenta* of reflection into self and into other, whereas being or immediacy is the unrelated and defective. But the deficiency of the phenomenal is that it is so broken in itself, having its support not in itself, which deficiency is remedied in the next higher category, that of Reality. It was Kant's merit, says Hegel, that he apprehended that to which the common consciousness ascribes being and independence as purely phenomenal; but he incorrectly conceived the phenomenal in the purely subjective sense, and distinguished [illegible] the abstract essence,"* under the name of the thing-in-itself; Fichte, in his [illegible]ism, erroneously confined men within an impenetrable circle of purely subjective ideations; it is, rather, the proper nature of the immediately objective world to be only phenomenal and not fixedly and independently existing. The unity of essence and existence, or of inner and outer, when it has become immediate, is reality; to it belong the relations of substantiality, causality, and reciprocity. Reciprocity is infinite negative relation to self. But this reciprocal motion, which remains thus with itself, or essence which has returned to being, the latter considered in the sense of simple immediacy, is the Conception.

The Conception is the unity of being and essence, the truth of substance, the Free, as independent [*fürsichseiende*], substantial power. The subjective conception develops itself (1) as the conception as such, which includes in itself the *momenta* of universality, particularity, and singularity; (2) as the judgment in which (*a*) the conception is posited as particular, and (*b*) is separated into its *momenta*, and (*c*) the singular is exhibited as related to the universal; and, finally, (3) as the syllogism, which is the unity of conception and judgment, being conception as the simple identity into which the formal differences of the judgment have returned, and judgment, in so far as it is also posited in reality, *i. e.*, in the difference of its determinations [the Terms of the Syllogism]. The syllogism is the rational and all that is rational is syllogistic; it is the orbit in which the dialectical development of the ideal *momenta* of the Real revolves. The realization of the conception in the syllogism as totality re-entered into itself, is the Objective. The objective conception passes through the *momenta:* Mechanism, Chemism, and Teleology (which must each be here understood not in the special sense peculiar to their use in natural science, but in the general metaphysical sense). In the realization of the End or Aim, the conception declares itself as the intrinsic [*an sich seiende*] essence of the Objective. The unity of the conception and of its reality, the intrinsic unity of the subjective and objective, posited as independent (as being for self), is the Idea. The *momenta* of the Idea are life, cognition, and the absolute Idea; the absolute Idea is the pure form of the conception, perceiving its content as itself, the self-knowing truth, the absolute and all truth, the self-thinking Idea as thinking or logical Idea. The absolute freedom of the Idea is that it not merely passes over into life, and not merely,

from its reflection in our consciousness (more particularly, apart from the immediate, ante-critical consciousness, as determined or guided by sense-perception and dogmatic thought). Cf. in my *System of Logic*, § 40, the observations on the difference between the antitheses: Thing-in-itself and Appearance (phenomenon), and Essence and the Manifestation of Essence.

* But this, as above shown, was not Kant's meaning.

in the form of finite knowledge, makes life to *appear* in itself, but that in the absolute truth of itself it determines freely to emit from itself the *moment* of its particularity or of its first determination and self-externalization [*otherness, Anderssein*], or the immediate [non-mediated] Idea, in the form of Nature, which is the reflection of the Idea. The Idea as Being, or the Idea being [*die seiende Idee*], is Nature.

Nature is the Idea in the form of otherness, or of self-alienation. It is the reflex of spirit, the absolute in its immediate definite-being [*Dasein*]. The Idea runs through a series of stages, from its abstract being-out-of-self in space and time to the being-in-self of individuality in the animal organism, their succession depending on the progressive realization of the tendency to being-for-self, or to subjectivity. Its leading *momenta* are the mechanical, physical, and organic processes. In gravity the Idea is discharged into a body, the members of which are the free celestial bodies; then externality is developed inwards into attributes and qualities, which, belonging to an individual unity, have in the Chemical Process an immanent and physical motion; in vitality, finally, gravity is discharged into members, in which subjective unity remains. This succession is not conceived by Hegel as a temporal one, for only spirit, he says, has history, while in nature all forms are contemporaneous; the higher, which in the dialectical development is the later, but which is the ideal *prius* of the lower, is only in spiritual life chronologically later.

The death of mere immediate, particular life is the birth of Spirit. Spirit is the being-with-self [*Beisichsein*] of the Idea, or the Idea returning from its self-alienation to self. Its development is the gradual advance from natural determinateness to freedom. Its *momenta* are subjective, objective, and absolute, spirit.

Subjective spirit, in its immediate blending with natural determinateness, or the soul in its relation to the body, is the subject of Anthropology. Phenomenology, as the second part of the doctrine of Subjective Spirit, considers the manifestations of spirit at the stage of reflection, in sensuous consciousness, perception, understanding, self-consciousness, and reason. Psychology considers spirit as intelligence (theoretical), will (practical), and ethicality (free). Intelligence finds itself determined, but posits that which it finds as its own, when it comprehends that the universe is the self-realizing end of reason. To this comprehension it arrives by the way of praxis, in which character is determined by will. The unity of willing and thinking is the energy of self-determining freedom. The essence of ethicality [social morality, *Sittlichkeit*] is, that the will follow only ends of universal, rational scope.

The doctrine of Objective Spirit relates to the forms in which free will is objectified. The product of free will, as an objective actuality, is legal Right. Right is an actualization of freedom, and is opposed only to the arbitrary. Right as such, or formal and abstract right, in which free will is immediate, includes the right of property, treaty right, and penal right. Property is the definite-being [*Dasein*] which the person gives to his freedom; the treaty is the confluence of two wills in a common will; penal right is right against injustice (un-right); and punishment is the restoration of right as negation of its negation. After formal right comes, as the second stage, morality, or the will reflected into itself, the will in its self-determination as conscience; while the third stage is the ethical stage, in which the individual recognizes himself as one with the ethical substance, viz.: with the family, the civil society, and the State. The State is the actuality of the ethical idea; the self-conscious ethical substance, or ethical spirit developed into organized actuality; spirit, which is present in the world; the divine will, as present spirit, unfolding itself into the actual shape and organization of a world. In the constitutional monarchy, the political form of the

modern world, the forms which in the ancient world belonged to various wholes, viz. . autocracy, aristocracy, democracy, are degraded to *momenta:* the monarch is One; in his person the personality of the State is actual; he is the chief in all cases of formal decision. In the administration of his government Some, and in legislation, as far as the different classes participate in it, the Many are joined with him. The institution of classes is necessary, in order that the *moment* of formal freedom may obtain its right; and the jury is necessary, in order that the right of subjective self-consciousness may be satisfied. The principal weight, however, is laid by Hegel, not on the subjective self-determination of the individual, but on the reasoned structure of the State, on the architectonic of its rationality. His political philosophy seeks to demonstrate the rationality of the actual State, and is accompanied with a sharp criticism of those who, relying on a reflection and a sentiment founded on a subjective conviction of superior knowledge, take pleasure in proposing empty ideals. The history of the world, which Hegel conceives substantially as identical with political history, is viewed by him as the history of the development of the consciousness of freedom. It is the discipline which overcomes the untractableness of the natural will, and leads through substantial freedom to subjective freedom. The Orient knew and knows only that One is free, the Greek and Roman world that Some are free, the German world that All are free. The history of the world begins in the East, but it is in the West that the light of self-consciousness rises. In the substantial shapes assumed by the Oriental empires all rational qualifications are present, but so that the subjects remain only accidents. Oriental history represents the childhood of humanity. The Grecian mind corresponds to the period of youth. Here is first developed the empire of subjective freedom, but only under the cover of substantial freedom. This union of social morality and subjective will is the empire of freedom under the form of beauty, for here the Idea is united with a plastic shape, just as in a work of fine art the sensuous bears the impress and is the expression of the spiritual. This is the time of the most beautiful, but quickly passing bloom. In the natural unity of the individual with the universal end lies the natural, substantial ethicality, to which Socrates opposed morality, which latter depends on the reflective self-determination of the Subject; it was necessary that substantial ethicality should become involved in a struggle with subjective freedom, in order that it might form itself into free ethicality. The Roman Empire represents the age of manhood in history. It is the empire of abstract universality. Individuals are sacrificed to the universal end of the State; but they receive as a compensation the universality of themselves, *i. e.*, personality, by the development of private right. The like fate falls upon the nations. The pain of the loss of national independence drives the spirit back into its innermost depths; it forsakes the world from which its gods have been banished, and begins the life of interiority. The absolute will and the will of the individual become one. In the German world prevails the consciousness of reconciliation. At first the spirit is still satisfied in its interiority, and the secular is left to be cared for by those who are barbarous and arbitrary; but at last the Principle itself shapes itself to concrete reality, in which the Subject is united with the substance of the spirit. The realization of the conception of freedom is the goal of the world's history. Its development is the true theodicy.

Absolute Spirit, or religion in its more comprehensive sense, as the unity of subjective and objective spirit, is realized in the objective form of intuition or of immediate sensuous knowledge, as art, in the subjective form of feeling and imagination, as religion in the narrower sense, and, finally, in the subjective-objective form of pure thought, as philosophy. The beautiful is the absolute in sensuous existence, the actuality of

the Idea in the form of limited manifestation. Symbolic, classical, and romantic art are distinguished by the varying relation in which they present idea and material. In symbolic art, above which, notably, the Orientals could not rise, the form is unable fully to penetrate and permeate the material. In classical beauty, and pre-eminently in Grecian art, the ideal content is completely discharged into sensuous existence. Classical art dissolves itself negatively in the satire, the artistic product of the Roman world, internally rent and decaying, and positively in the romantic art of the Christian period. Romantic art is founded on the predominance of the spiritual element, on depth of feeling and spirit, on the infinitude of subjectivity. It is art going out of and rising above itself, yet retaining the form of art. The system of the arts (architecture; sculpture; music, painting, and poetry) is analogous to that of the forms of art. Poetry, as the highest of the arts, takes the totality of all forms up into itself. Religion is the form which absolute truth assumes for the representative consciousness, or for feeling, representation, and the reflecting understanding, and hence for all men. The stadia of religion in its historical development are: 1. The natural religions of the Orient, in which God is conceived as a natural substance; 2. The religions in which God is viewed as Subject, in particular, the Jewish religion, or the religion of sublimity; the Greek, or the religion of beauty; and the Roman, or the religion of utility or adaptation; 3. The absolute religion, which recognizes God at once in his self-alienation in finitude and in his unity with the finite or his life in the reconciled community or church. The divine Idea unfolds itself in three forms: These are (1) Being eternally in and with itself, the form of universality, God in his eternal idea in and for himself, the kingdom of the Father; (2) the form of manifestation, of particularization, Being-for-Other in physical nature and in the finite spirit, the eternal idea of God in the element of consciousness and mental representation, the *moment* of difference, the kingdom of the Son; and (3) the form of return out of manifestation into self, the process of reconciliation, the Idea in the sphere of the religious community or the kingdom of the Spirit. The true sense of the proofs of God's existence is that in them the human spirit rises to God, and that they are intended to express this movement for thought. The cosmological and teleological proofs proceed from the being to the conception of God, the ontological, conversely, from conception to being. Philosophy is the thinking of absolute truth, the self-thinking Idea, self-knowing truth, self-comprehending reason. Philosophical knowledge is the conception of art and religion known and comprehended in thought. The true systematic development of philosophy and its historical development take place in essentially the same manner, namely, by a progress from the most abstract to ever richer and more concrete cognitions of truth. The philosophies of the Eleatics, of Heraclitus, and of the Atomists correspond with pure being, becoming, and being-for-self or independent being; the philosophy of Plato corresponds with the categories of essence, Aristotle's with the conception, the philosophy of the Neo-Platonists with thought as totality or the concrete Idea, and the philosophy of modern times with the Idea as spirit or the self-knowing Idea. The Cartesian philosophy occupies the stand-point of consciousness, the Kantian and Fichtean philosophies occupy that of self-consciousness, and the newest philosophy (Schelling's and Hegel's) occupies the stand-point of reason, or of subjectivity as identical with substance in the form of intellectual intuition with Schelling, and in that of pure thought or absolute knowledge with Hegel. The principles of all previous systems are contained as sublated *momenta* in the absolute philosophy.*

* What was said in Vol. I., § 4, of the truth in fundamental conception and the grandness in its detailed elaboration—notwithstanding much that is exaggerated, arbitrary, and distorted—of Hegel's view of the his-

§ 130. Friedrich Ernst Daniel Schleiermacher (1768–1834), a contemporary of Fichte, Schelling, and Hegel, the first and last of whom he survived, and incited especially by the study of Kant, Spinoza, and Plato, modified the Kantian philosophy, attempting to do equal justice to the realistic and the idealistic elements contained in it. Space and time are viewed by Schleiermacher as forms of the existence of things themselves and not merely of our apprehension of things. In like manner Schleiermacher concedes to the Categories validity for things themselves. The act of apprehension, he teaches, depends on the action of the senses, through which the being of things is taken up into our consciousness. The doctrine that the affection of the senses is a condition of knowledge, which doctrine Kant had inconsequently assumed, and Fichte, for the sake of logical consistency, had in vain sought to disprove, is in logical agreement with the whole of Schleiermacher's doctrine, since with him space, time, and causality are not merely forms of a phenomenal world existing solely in the consciousness of the percipient Subject, but are also forms of the objective, real world which confronts him and conditions his knowledge. In thought, which elaborates the content of external and internal experience, or in the "intellectual function" which supplements the "organic function," Schleiermacher detects, with Kant, the element of spontaneity, which is combined in man with receptivity, or the *à priori* element of knowledge which co-operates with the empirical factor. Through this theory of cognition Schleiermacher avoids the *à priori* narrowness of the Hegelian dialectic. The plurality of co-existing objects and of successive processes in nature and mind constitute a unity which is not invented by the mind, but has true reality, and includes object and subject. As being a real unity, the world of manifold existence constitutes an articulate whole. The totality of all existing things is the world; the unity of the universe is the Deity. Whatever affirmations are made with reference to the Deity must be either negative or figurative and anthropomorphitic. A reciprocity of influences exerted and received unites all the parts of the universe. Every part, therefore, is both active and passive. With human activity is connected the feeling of freedom, and with passibility that of dependence. With reference to the Infinite, as the unity of the universe, man has a feeling of absolute dependence. In this feeling religion has its root. Religious ideas and dogmas are forms of the manifestation of the religious feeling, and as such are specifically distinguished from scientific speculation, which strives to reproduce in subjective consciousness the world of objective reality. He who seeks to transform dogmas into philosophemes, or to philosophize in theology, mistakes the limits both of philosophy and theology; only a formal use can be made of philosophy in theology. Philosophy should not be made the servant of theology, nor theology of philosophy; each is free within its own limits. Schleiermacher's attention was directed not only to dialectic—which includes with him speculative theology—and philosophical ethics, but also to Christian dogmatics and Christian ethics. In the place of Kant's too narrow conception of duty, by which the specific and variable is sacrificed to the universal, Schleiermacher substituted the doctrine that each one's duty varies according to his individuality. Schleiermacher's ethics includes the doctrines of goods, of virtue, and of duties. In the highest good, which he defines as the supreme unity of the real and the ideal, Schleiermacher finds the ethical end of man, in duty the law of advancement towards this end, and in virtue the moving force. Schleiermacher's ethics is predominantly doctrine of goods. The manner in which Schleiermacher more expressly defines and formulates, on the one hand the opposition, and on the other, the union of the real and the ideal, most resembles Schelling's manner, in his philosophy of identity. In point of ideal content, systematic division, and terminology, Schleiermacher's system was not developed by him into a thoroughly finished and all-including whole, and is, therefore, far inferior in formal perfection to Hegel's, and also to Herbart's system; but it is free from many defects of narrowness which are inseparably involved in these systems, and in its still largely unfinished form is more capable than any other post-Kantian philosophy of a pure development, by which the various defects of other systems may be remedied.

tory of philosophy, can be extended in essentially the same sense to his whole system. Decidedly as Hegel rejects in principle every form of dualism, yet, in the method of his system which elevates dialectical construction in opposition to empiricism to an independent power and separates "pure thought" from its empirical basis, he really sets up a dualism, which is not removed by the supplementary reference made to experience. The same justice has not been done by Hegel to the realistic side of the Kantian philosophy as to the idealistic side. Hence the greater prominence, and, in many cases, the one-sided exaggeration, given to the former side in post-Hegelian philosophy.

Schleiermacher's Works have been published in three Series: 1. Works on Theology; 2. Sermons; 3. Philosophical and Miscellaneous Writings, Berlin, 1835–64. The third series contains the following volumes: I. *Grundlinien einer Kritik der bisherigen Sittenlehre; Monologe; vertraute Briefe über F. Schlegel's Lucinde; Gedanken über Universitäten im deutschen Sinne*, etc. II. *Philos. u. verm. Schriften.* III. *Reden und Abh., der K. Academie der Wiss. vorgetragen, aus Schl.'s handschr. Nachl. hrsg. von L. Jonas* IV. 1. *Gesch. der Philos., hrsg. von H. Ritter.* IV. 2. *Dialektik, hrsg. von L. Jonas.* V. *Entwurf eines Systems der Sittenlehre, hrsg. von A. Schweizer.* VI. *Psychologie, hrsg. von George.* VII. *Aesthetik, hrsg. von C. Lommatzsch.* VIII. *Die Lehre vom Staat, hrsg. von Chr. A. Brandis.* IX. *Erziehungslehre, hrsg. von C. Platz.* A brief compilation of pithy extracts from Schleiermacher's works, well adapted for an

introduction to the latter, are the *Ideen, Reflexionen und Betrachtungen aus Schl.'s Werken*, ed. by L. v. Lancizolle, Berlin, 1854. Of Schleiermacher's life and personal relations his copious correspondence furnishes the most trustworthy information. The letters which passed between him and J. Chr. Gass have been published by the latter's son, W. Gass, with a biographical preface, Berl., 1852. All of Schleiermacher's correspondence, which has been preserved and is of general interest, has been edited and published by Ludwig Jonas, and, after his death, by Wilh. Dilthey, under the title: *Aus Schleiermacher's Leben, in Briefen*. Vol. I.: From Schl.'s childhood till his appointment at Halle, in October, 1804, Berlin, 1858, 2d ed., 1860; Vol. II.: Till his death, which occurred Feb. 12, 1834, Berlin, 1858, 2d ed., 1860; Vol. III.: Schl.'s correspondence with friends till his removal to Halle, chiefly with Friedr. and Aug. Wilh. Schlegel, Berlin, 1861; Vol. IV.: Schl.'s letters to Brinckmann, correspondence with his friends from 1804 to 1834, Memoirs, "*Dialog über das Anständige*," Reviews, Berlin, 1863. A short autobiography of Schl., extending to April, 1794, is given in Vol. I., pp. 3–16. A comprehensive biographical work on Schl. (by Wilh. Dilthey) has followed. Of those who have treated of Schl.'s philosophical and theological doctrines, we may mention in particular: Chr. Jul. Braniss, *Ueber Schl.'s Glaubenslehre*, Berlin, 1824; C. Rosenkranz, *Kritik der Schleiermacher'schen Glaubenslehre*, Königsberg, 1836; Hartenstein, *De ethices a Schl. proposito fundamento*, Leips., 1837; cf. also occasional passages in H.'s *Ethik*; Dav. Friedr. Strauss, *Schleierm. und Daub in ihrer Bedeutung für die Theologie unserer Zeit*, in the *Hallische Jahrb. für deutsche Wiss. u. Kunst*, 1839, repr. in *Charakteristiken und Kritiken*, Leips., 1839; Schaller, *Vort. über Schl.*, Halle, 1844; Weissenborn, *Vorlesungen über Schl.'s Dialektik und Dogmatik*, Leips., 1847–49; F. Vorländer, *Schleiermacher's Sittenlehre*, Marburg, 1851; Sigwart, *Ueber die Bedeutung der Erkenntisslehre und der psychologischen Voraussetzungen Schleiermacher's für die Grundbegriffe seiner Glaubenslehre*, in the *Jahrb. für deutsche Theologie*, ed. by Liebner, Dorner, Ehrenfeuchter, Landerer, Palmer, and Weizsäcker, Vol. II., 1857, pp. 267–327 and 829–864 (with which cf. Dorner's rejoinder, *ibid.*, p. 499); C. A. Auberlen, *Schleiermacher, ein Charakterbild*, Basel, 1859; E. Zeller, *Zum 12. Februar*, in the *Preuss. Jahrb.*, III., 1859, pp. 176–194, reprinted in Zeller's *Vortr. u. Abh.*, pp. 178–201; Karl Schwarz, *Schleiermacher, seine Persönlichkeit und seine Theologie*, Gotha, 1861; Bobertag, *Schl. als Philosoph*, in the *Prot. Kirchenz.*, 1861, No. 47; Sigwart, *Schl. in seinen Beziehungen zu dem Athenäum der beiden Schlegel* (Progr. of the Sem. at Blaubeuren), Tübingen, 1861; Schlottmann, *Drei Gegner* (Schenkel, Stahl, and Philippi) *des Schleiermacher'schen Religionsbegriffs*, in the *Deutsche Zeitschr. für christl. Wiss. u. christl. Leben*, N. S. IV., 1861, Oct.; Wilh. Dilthey, *Schl.'s politische Gesinnung und Wirksamkeit*, in the *Preuss. Jahrb.*, X., 1862; Guil. Dilthey, *De principiis ethices Scheiermacheri* (*Diss. inaug.*), Berl., 1864; Rud. Baxmann, *Schl.'s Anfänge im Schriftstellern*, Bonn, 1864; the same, *Schleiermacher, sein Leben und Wirken*, Elberfeld, 1868; W. Beyschlag, *Schl. als politischer Charakter*, Berlin, 1866; Rich. v. Kittlitz, *Schleiermacher's Bildungsgang, ein biographischer Versuch*, Leipsic, 1867; Wilh. Dilthey, *Leben Schleiermacher's*, Vol. I., 1867–70; Daniel Schenkel, *Friedr. Schleiermacher, ein Lebens- und Charakterbild, zur Erinnerung an den 21. Nov.*, 1768, Elberfeld, 1868; A. Baur, *Schleiermacher's christliche Lebensanschauungen*, Leips., 1868; Franz Hirsch, *Schl. in Ostpreussen*, in the *Altpreuss. Monatsschr.*, IV., No. 8, 1867; Emil Schürer, *Schl.'s Religionsbegriff und die philos. Voraussetzungen desselben* (Inaug. Dissert.), Leipsic, 1868; P. Schmidt, *Spinoza und Schleiermacher, die Geschichte ihrer Systeme und ihr gegenseitiges Verhältniss*, Berlin, 1868. On the occasion of the centennial celebration on the 21st of November, 1868, addresses and works on Schleiermacher were published by M. Baumgarten, R. Benfey, Biedermann, G. Dreydorff, L. Duncker, Frickey, L. George, Hagenbach, Henke, Kahnis, Lipsius (in Hilgenfeld's *Zeitschr. für wiss. Theologie*), F. Nitzsch, A. Petersen, Herm. Reuter, A. Ruge, H. G. Sack, E. O. Schellenberg, D. Schenkel, L. Schultze, Sigwart (in the *Jahrb. für deutsche Theologie*), H. Spörri, Thomas, Thomsen, Treblin, Th. Woltersdorf, and others. Cf. also works and opuscules by Carl Beck (Reutlingen, 1869), F. Zachler (Breslau, 1869), Th. Eisenlohr (*Die Idee der Volksschule nach Schleierm.*, Stuttgard, 1852, 1869), Wilh. Bender (*Schl.'s philos. Gotteslehre*, Dissert., Worms, 1868), Ernst Bratuschek and T. Hulsmann (in the *Philos. Monatschrift*, II., 1 and 2), Karl Steffensen (*Die wissensch. Bedeutung Schleiermacher's*, in Gelzer's *Monatsblatt für innere Zeitgesch.*, Vol. 32, Nov., 1868), P. Leo (*Schl.'s philos. Grundanschauung nach dem metaphys. Theil seiner "Dialektik,"* Dissert., Jena, 1868), Th. Hossbach (*Schl., sein Leben und Wirken*, Berlin, 1868), A. Twesten (*Zur Erinnerung an Schl.* [*akad. Vortrag*], Berlin, 1869), C. Michelet (*Der Standpunkt Schl.'s*, in the *Gedanke*, VIII., 2, 1869). [Arts. on S. in Christ. Exam. vol. 53, and Westm. Rev. vol. 86.—*Tr.*]

Friedrich Ernst Daniel Schleiermacher, son of a Reformed clergyman, was born at Breslau, Nov. 21, 1768. He was brought up as a member of the community of Moravian brethren, and their form of faith acquired the most profound influence over his spiritual tendencies; an influence which continued indestructibly to assert its power, even when (from his nineteenth year), impelled by the need of independent examination, he had renounced his outward connection with the Moravians, and was no longer able to

approve the definite substance of their faith. From the spring of 1783 until autumn in 1785 he was educated in the *Pædagogium* at Niesky; thence he was received into the Seminary of the United Brethren at Barby, which he quitted in May, 1787. After completing the theological course at Halle, he occupied (Oct., 1790, to May, 1793) a position as teacher in the family of Count Dohna-Schlobitten. Soon afterwards he entered the "*Seminar für gelehrte Schulen*" at Berlin, which was under Gedike's direction. From 1794 to 1796 he was assistant preacher at Landsberg on the Warthe, 1796–1802 chaplain at the *Charité-Haus* at Berlin, 1802–1804 court-chaplain at Stolpe, and 1804–1806 Professor *Extraordinarius* of Theology and Philosophy at Halle on the Saale. Being compelled, in consequence of the events of the war, to give up this last position, he occupied himself with literary labors, and co-operated in his measure with Fichte and other patriotic men in bracing the public mind for the work of a future emancipation of the Fatherland from foreign domination. From 1809 he preached at the Church of the Trinity in Berlin. On the founding of the Berlin University he received in it an appointment as Professor *Ordinarius* of Theology, which position he retained till his death on the 12th of February, 1834. In addition to his courses of theological lectures he delivered philosophical lectures on various branches of philosophy. He became early familiar with the Kantian philosophy, being especially occupied in studying and criticising it in the decennium 1786–1796. Subsequently he directed a critical attention to the speculations of Fichte and Schelling. He first became acquainted with Spinoza's doctrine (probably in the year 1794) through Jacobi's exposition of it (1785). Afterwards he interested himself in the systems of Plato and of earlier philosophers. His attention had previously, but with far less interest, been directed to Aristotle. Schleiermacher developed his own ideas at first chiefly in the criticism of other systems, but afterwards proceeded more and more independently and constructively. In 1817 he was made a member of the Academy of Sciences, for which he wrote a series of opuscules relating mostly to Greek philosophy. In the year 1817 he was President of the Synod assembled at Berlin to deliberate on the union of the Lutheran and Reformed Churches. But the kind of union for which Schleiermacher labored, namely, the free union of the two Churches in such a manner as to leave all forms of doctrine and cultus, provided they were conformed to the spirit of Protestantism, to be determined according to the conscience of the individual preachers and churches, was radically different from the more rigidly legal and doctrinal union which was in the end effected. Schleiermacher's warning, addressed to Minister Von Altenstein, not to permit his name to be associated in history with the corruption of the true idea of union, was not effectual in turning him from the course finally chosen by him, but was only received as a personal insult. In consequence of this conflict, and owing also to his liberal political activity, previously as well as subsequently to this period, Schleiermacher experienced as constantly the disfavor of the government as Hegel enjoyed its favor and active support. It was not till in his last years that, through the mutual advances of both parties, friendly relations were in a measure restored. As preacher, University Professor, and author, Schleiermacher's activity was extremely varied and salutary. In the fields of theology, philosophy, and ancient learning, his labors were broadly stimulating, intellectually awakening, and indicating new paths. "Schleiermacher" (says Zeller in his *Vortr. u. Abh.*, Leipsic, 1865, pp. 179 and 200) "was not only the greatest theologian that the Protestant Church has had since the period of the Reformation; not only a churchman, whose grand ideas of the union of the Protestant confessions, of a more liberal constitution of the Church, of the rights of science and of individuality in religion, will force their way in spite of all resistance, and have even

now begun to come forth again from the deep eclipse which they have suffered; not only a gifted preacher, a highly-endowed and deep-working religious teacher, forming the heart by the understanding and the understanding by the heart: but Schleiermacher was also a philosopher, who, without having any finished formal system, yet scattered the most fruitful seeds; an investigator of antiquity, whose works introduced a new era in the knowledge of Greek philosophy; a man, finally, who co-operated honestly in the work of Prussia's and Germany's political regeneration; who, in personal intercourse, exerted a stimulating, educating, and instructing influence on countless minds, and who awakened in many an altogether new intellectual life. Schleiermacher was the first one to investigate with comparative thoroughness the peculiar nature of religion, and thereby to do an incalculable service also in the way of practically determining its relations to other fields of thought; he is one of the most distinguished among the men who for more than a century have been laboring to sift what is of universal human import from the mass of positive tradition, to transform what the past has given us, in accordance with the spirit of our times, one of the foremost among the protagonists of modern Humanism."

Among Schleiermacher's writings the following deserve especial mention: *Ueber die Religion, Reden an die Gebildeten unter ihren Verächtern*, Berlin, 1799; 2d ed., 1806; 3d ed., 1821; frequently reprinted since Schl.'s death. *Monologen, eine Neujahrsgabe*, 1800, etc. *Vertraute Briefe über F. Schlegel's Lucinde* (publ. anonymously), 1800. *Predigten*, 1st Collection, 1801; 2d Coll., 1808; 3d Coll., 1814; 4th Coll., 1820; *Festpredigten*, 1826 and '33; *Zur Denkfeier der Augsb. Confession*, 1831; further collections of sermons appeared, after Schleiermacher's death, in his Complete Works. *Grundlinien einer Kritik der bisherigen Sittenlehre*, Berlin, 1803. *Platon's Werke, übersetzt und mit Einleitungen und Anmerkungen versehen*, I., 1 and 2; II., 1–3; III., 1, Berlin, 1804–28, etc. *Die Weihnachtsfeier*, 1806, etc. *Der christliche Glaube nach den Grundsätzen der evangelischen Kirche*, Berlin, 1821–22; 2d revised edition, 1830–31; frequently reprinted since Schl.'s death. Of his posthumous works the following (in addition to the *Gesch. der Philos.* cited above, Vol. I., p. 10) are those of most philosophical importance: *Entwurf eines Systems der Sittenlehre, hrsg. von Schweizer*, 1835, and *Grundriss der philos. Ethik mit einleitender Vorrede hrsg. von A. Twesten*, 1841 (with which cf. *Die christliche Sitte, nach den Grundsätzen der evangelischen Kirche im Zusammenhang dargestellt, hrsg. von Jonas*, 1843). *Dialektik hrsg. von Jonas*, 1839. *Aesthetik, hrsg. von C. Lommatzsch*, 1842. *Die Lehre vom Staat, hrsg. von Chr. A. Brandis*, 1845. *Erziehungslehre, hrsg. von C. Platz*, 1849. *Psychologie, hrsg. von George*, 1864. (The *Lectures on the Life of Jesus*, published in 1864 under the editorship of Rütenik, produced at the time of their delivery a not inconsiderable impression among the large number of those who heard them. In particular, they may be said to have been partly a direct anticipation of David Friedr. Strauss's critique of the evangelical accounts of the life of Jesus, which appeared soon after Schleiermacher's death, and partly to have led indirectly to it; the latter, namely, in so far as the partial critique of Schleiermacher would necessarily provoke a uniform extension of the same critique to points, with reference to which Schleiermacher had held back, especially when taken up by a consequent thinker, who had learned from the Hegelian philosophy not to connect his religious interest with any person, but with the Idea itself, which, as Strauss—on the authority of the Hegelian principles and indeed after the precedent of Kant in his *Critique of the Pure Reason*, 2d ed., p. 597, and in his *Religion within the Limits of the Mere Reason*—affirmed, did not like to pour out all its riches into any one individual. In an historical point of view these lectures have now scarcely any value, but their importance is great for those who would understand the theology of Schleiermacher and the course of German theology in its more recent development.)

Equally animated by deep religious feeling and filled with an earnest scientific spirit, Schleiermacher seeks visibly in all his works to contribute towards the accomplishment of the work which he indicates as the goal of the Reformation and as the special want of the present time: "to establish an eternal compact between vital Christian faith on the one hand, and scientific inquiry, left free to labor independently for itself, on the other, so that the former may not hinder the latter, nor the latter exclude the former."

In the "Discourses on Religion" (*Reden über die Religion;* 1st Discourse: Justification, 2d: On the Essence of Religion, 3d: On Religious Culture, 4th: On the Social Principle in Religion, or on Church and Priesthood, 5th: On Religions) Schleiermacher seeks to show what is the nature and what the justification of religion. As Kant in his critique of the reason opposes that philosophic dogmatism which pretends to prove theoretically the reality of the objects of the Ideas of the reason, while he recognizes and enforces the moral truth of those ideas as objects of faith, so Schleiermacher denies the scientific truth of the teachings of theological dogmatism, but admits that religion is founded in man on a special and noble faculty, namely, on religious feeling, which is the direction of the spirit toward the infinite and eternal; and he finds the true import of theological notions and doctrines in this, that through them the religious feeling comes to expression; but when that whose office is simply to indicate our feelings and represent them in words is taken for objective science, or for science and religion at once, there follows inevitably a decline into mysticism and mythology. Kant needed, in order on the basis of the moral consciousness to vindicate, by means of his Postulates, the reality of the objects of the "Ideas of the reason," a critique of the theoretical reason, to show that there was space left for the objects of these "Ideas" beyond the sphere of all that is finite and therefore only phenomenal. Schleiermacher, on the contrary, since he seeks not to prove the reality of the objects of our religious notions, but only the legitimacy of the subjective spiritual states which are expressed by means of these notions, needs no open space for the infinite outside the finite, is able to leave to the finite its objective reality, "which is reflected in our consciousness," inviolate, and finds, like Spinoza (from whom, however, he differs essentially by his recognition of the worth and significance of individuality), in the midst of the finite and perishable itself the infinite and eternal. In opposition to the idealistic speculation of Kant and Fichte, Schleiermacher demands a realism which shall not indeed be confined to the consideration of the finite in its isolation, but shall consider each thing in its union with the whole and with the eternal (or, in Spinoza's phraseology: *sub specie æterni*); to feel one's self one with this Eternal, says Schleiermacher, is religion. "If man does not become one with the eternal in the immediate unity of his intuition and feeling, he remains eternally separated from it in the derived unity of consciousness. But what, then, will become of the highest utterance of the speculation of our days, what shall be the end of this finished, rounded Idealism, if it does not again sink back into this original unity, so that the humility of religion may cause this proud speculation to suspect that there may be another realism than that to which it so boldly and with perfect justice asserts its own superiority? It will annihilate the universe while seemingly seeking to construct it, and will degrade it to the signification of a mere allegory, to an empty shadow of the narrowness and limitation of its vacant consciousness. Offer reverentially with me a lock to the manes of the holy, rejected Spinoza! He was filled with the lofty world-spirit;

the infinite was his beginning and his end; the universe his only and eternal love. In holy innocence and deep humility he saw himself in the mirror of the eternal world, and saw how he too was its most lovely mirror; full of religion was he and full of holy spirit, and hence he stands there alone and unrivalled, master in his art, but exalted above the profane guild, without disciples and without civil right."

Science, says Schleiermacher, is the existence of things in human reason; art and cultured skill are the existence of human reason in things, to which it gives measure, shape, and order; religion, the necessary and indispensable third to these two, is the immediate consciousness of the unity of reason and nature, of the universal being of all that is finite in the infinite and through the infinite, and of all that is temporal in the eternal and through the eternal. Piety, devotion, as the direction of the spirit to the eternal, is that state of spiritual excitation to which all the utterances and deeds of divinely-inspired men point; it does not produce, it accompanies knowledge and moral action; but with it immorality and the conceit of knowledge cannot co-exist. Whatever advances genuine art and science is a means of religious culture. True science is completed perception, true praxis is self-produced culture and art, and true religion is sense and taste for the infinite. To seek to possess either of the former without the latter, or to imagine that one does thus possess either, is a sacrilegious error. The universe is the scene of uninterrupted activity, and reveals itself to us in every moment; and when, through the impressions which it thus produces directly upon and indirectly within us, we take up into our lives every separate and finite object, regarded not by itself alone, but as a part of the whole, as a representation of the infinite, and when we find herein the motive for our action, *this* is religion.

The communion of those who have already inwardly ripened into the devout spirit is the communion of the true church. Particular churches furnish the bond of union between pious of this class, and those who are still seeking after piety. The difference between the priests and laity can only be a relative one. He is called to be a priest, whoever he may be, who has so peculiarly and completely developed in himself his faculty of feeling, as to acquire a facility in any kind of expression.

The idea of religion includes the complex of all the relations of man to the Deity; but the various *religions* are the definite shapes in which the one universal religion must express itself, and in which alone a true individual development of the religious nature is possible; the so-called natural or rational religion is a mere abstraction. The different religions are religion as, stripped of its infinity and often in impoverished form, as it were an incarnate God, it has appeared among men, which appearance is a work, extending *in infinitum*, of that spirit which is revealed in all human history. The manner in which man has the Deity present to him in his feeling decides respecting the worth of his religion. The three principal religious stadia, in this regard, are (1) the stadium at which the world appears as a chaotic unity, and the Deity is represented to the mind either in the form of personality, as a fetish, or impersonally, as blind fate; (2) the stadium at which the definite plurality of heterogenous elements and forces is most prominent in man's conception of the world, and the notion of God is either polytheistic, as among the Hellenes, or takes the form of a recognition of necessity in nature, as with Lucretius; (3) the stadium at which being is conceived and represented as totality, as unity in plurality, or as system, and the notion of God is either monotheistic or pantheistic. In Judaism the properly religious element, or the consciousness which everywhere gleams through, of man's position in the universe and of his relation to the eternal, takes the form of the conception of direct retribution, of a reaction of the infinite against the finite, the latter being viewed as having its source in the arbitrary or

accidental. The Deity is conceived only as rewarding, punishing, correcting whatever is individual in the individual. The original conception of Christianity, on the contrary, is that of the universal tending and striving of all finite things towards the unity of the whole; and it represents God's action in response to this striving as an action of reconciliation exerted at various times and places through agencies at once finite and infinite, human and divine. The sense of ruin and redemption, of enmity and reconciliation, is fundamentally characteristic of Christian feeling. Christianity, detecting in all that is actual the element of unholiness, proclaims as its goal infinite holiness. Christianity first put forth the requirement that piety should be a permanent state in man and not confined to particular times and relations. The founder of Christianity does not require that our adoption of his idea be consequent upon our attachment to his person, but rather the reverse; the greater sin is the sin against the spirit. The peculiarity and substance of the religion of Christ is that it makes the idea of redemption and reconciliation the centre of religion. But Christ himself is the centre of all reconciliation. The time will come when the Father will be all in all, but this time lies out of all time.

In the *Monologues* (1. Contemplation; 2. Examination; 3. The World; 4. Prospect; 5. Youth and Old Age) Schleiermacher defines it as the highest moral work of man, that each one represent in himself in a peculiar manner humanity. Kant's requirement in the name of reason, of a uniformity of action, the Categorical Imperative, is viewed by him as marking indeed a creditable advance from the low emptiness of sensuous animal life to a higher plane, but as constituting, nevertheless, a lower standpoint in comparison with that which insists on a higher individuality in culture and morality. The Ego, the me, certain of itself, asserts in its most interior, personal action its free, spiritual self-determination, independently of any accidental combination of circumstances and even of the power of time, of youth, and of old age.

The *Confidential Letters on Friedrich Schlegel's "Lucinde"* (which are better than the work commented on) are a plea for the undivided unity of the sensuous and spiritual elements in love, and oppose that desecration of the divine in it, which follows from the unintelligent separation of it into its elements, into spirit and flesh.

In classifying the sciences Schleiermacher considers whether they are founded on an empirical or a speculative view of nature and mind, and divides them accordingly into Natural History and Physics, History and Ethics. Philosophy in its idea has reference to the highest unity of physical and ethical knowledge, or to the complete interpenetration of the contemplative (speculative) and experimental.

Schleiermacher's *Dialectic* is founded on the idea of knowledge as the agreement of thought with being, which must show itself at the same time as agreement of thinkers with each other. The "Transcendental Part" of the Dialectic considers the idea of knowledge independently, and, so to speak, in repose, while the "Technical or Formal Part" considers the same idea in movement or the development of knowledge. With Kant, Schleiermacher distinguishes between the matter and the form of knowledge, and teaches that the former is given through sensuous perception or by the "Organic Function," while the latter has its origin in the "Intellectual Function," or in thought, which is the faculty of unity and distinction. The forms of our knowledge correspond with the forms of being. Space and time are the forms of the existence of things, and not simply forms of our apprehension of things. The forms of knowledge are the concept and the judgment. The concept corresponds to the independent being of things, or to the "substantial forms" termed force and phenomenon (the higher concept to "force," the lower to "phenomenon"), and the judgment to things in their co-exist-

ence, in their reciprocity, or as active and passive. The forms of the development of knowledge are induction and deduction. The process of deduction, or the derivation of a conclusion from principles, is never rightly employed except upon results of the inductive process, which advances from phenomena to the cognition of principles. Schleiermacher expressly (and with perfect logical justice) disputes the theory on which the Hegelian dialectic rests, that pure thought, separated from all other thought, can make a beginning of its own, can originate as a primitive, independent, and particular form of thought.

In the idea of God the absolute unity of the ideal and the real is thought, to the exclusion of all contrasts, while in the conception of the world the relative unity of the ideal and the real is conceived under the form of contrast. God is, therefore, neither to be conceived as identical with nor as separated from the world. (Since the Ego is the identity of the Subject in the difference of its *momenta*, God's relation to the world may be compared to the relation of the unity of the Ego to the totality of its temporal acts.) Religion is based on the feeling of absolute dependence, in which, with man's own being, the infinite being of God is at once implied. Through the religious feeling the original ground of existence is posited in us, just as in perception external things are posited in us. The being of the Ideas of the reason and the being of conscience in us are the being of God in us. Religion and philosophy are equally legitimate functions of the human spirit; the former is its highest subjective, and the latter its highest objective function. Philosophy is not subordinate to religion. Such (scholastic) subordination would only be justified if all attempts to think God were inspired only by feeling. But the speculative activity of man's reason as directed toward the transcendent ground of existence, has in itself worth and significance, especially as a means to the removal of anthropomorphitic elements from the idea of God. On the other hand, however, religion is not itself a mere stepping-stone to philosophy. For feeling is something permanent with us; it is in us the original unity or indifference of thinking and willing, and this unity cannot be replaced by thought.*

* Schleiermacher's conception of the relation between religion and philosophy is free from the defect of Hegel's conception, according to which feeling, like "representation," is merely a mental stadium preparatory to the conception. Feeling stands to cognitive activity in general, as also to willing and praxis, not in the relation of a function of lower or higher order, but in that of another and equally legitimate direction of psychical activity. The relation of order subsists only within each one of the three principal directions or faculties, hence among the sensuous and spiritual feelings, among sensuous and rational desires, and between perception, representation, and conception. But religion is not merely devotion, *i. e.*, not merely relation of man to Deity through the medium of feeling: it is relation of man in all his psychical functions to Deity. Hence the theoretical and ethical elements are as essential to religion as is the emotional. In so far, now, as religion has a theoretical side, Hegel's position, considered with reference to the relation between dogma and philosopheme, religious representation and scientific knowledge, is indeed correct, and Schleiermacher's coordination of faculties as equally legitimate is untenable. In all spheres of life, feeling, which objectifies itself in representations, must be founded on real external or internal events or processes; the feeling of joy in triumph, for example, which has given itself poetic expression in the *Persæ* of Æschylus, is founded on the fact of the victory actually secured, and the Christian feeling, on which Christian poems are based, on facts of outward or inward life. Now it is the work of science to ascertain and exhibit these real processes and events, so that a true image of them shall enter into our consciousness; science must, for example, reproduce the real motives and actual progress of the Persian War with objective fidelity in the whole and in detail, and must in like manner apprehend and represent with historical fidelity what took place in the consciousness of Jesus as well as what was involved in his relations to the world around him, and also what more general historical agencies co-operated in the origin and extension of Christianity. With patriotic or religious feeling and with patriotic or religious poetry, as such, this scientific activity is co-ordinate in point of legitimacy, and in so far as an influence is exerted in either direction, there is involved not a relation on either part of subordination and of mere servitude, but rather one of free and mutual furtherance and benefit. Scientific knowledge serves the artist as a means for his ends, and in like manner many of the products of art are serviceable to the representative of science for the purposes of his investigations, while his own feeling, as determined by the objects of his investigation, serves him as a means of exciting him to inquiry. But in so far as the ideas in which feelings objectify themselves, while containing elements which represent certain phases of the reality, contain, nevertheless, others, which under the most favorable circumstances have only a poetic justification, while yet both classes of elements without distinction have in these ideas the value of representations of the reality, they are not equally legitimate with, but inferior to, the ideas of science, from which all elements having only a poetical validity are sifted out, while the objectively valid ones are completed and are joined together in a critically tested and confirmed whole. Science aims at the cognition both of separate phenomena and also of the rationality which inheres in phenomena, whether in the field of nature or of mind, but is not for this reason incompetent to appreciate poetry as such in its works and to understand it in its motives. Religious progress, while not depending on a degradation or even an extirpation of feeling and poetry, or a restriction of religious consciousness to what is scientifically correct, does, nevertheless, imply a separation of all elements which are not scientifically justified from those dogmatic theorems which lay claim to objective truth, and a recognition of feeling and poetry as co-ordinate and co-operating with science, exactly as progress in historical knowledge and poetry depends on the separation and the co-operation of the historic and poetical elements originally blended together in the legend; this latter statement is illustrated in the actual state of historic poetry, whose tendency has been and is more and more to divaricate from historical tradition and critical investigation, and which has thus raised itself to a freer and more independent position, at the same time that historic knowledge has become purer and more profound.

The subject of Ethics is the action of the reason as resulting in a union or an agreement of reason and nature. The doctrine of goods, the doctrine of virtue, and the doctrine of duties are forms of ethics, each of which contains the whole under a peculiar point of view. A good is any agreement ("unity") of definite sides of reason and nature. Mechanism and chemism, vegetation, animalization, and humanization, express in ascending order the successive degrees of the union of reason and nature. The end of ethical praxis is the highest good, *i. e.*, the sum of all unions of nature and reason. The force from which all moral actions flow is virtue; the various virtues are the ways in which reason as a force dwells in human nature. Progress towards the end of all morality (the highest good) is the substance of duty, *i. e.*, of ethical praxis with reference to the moral law or of the sum of individual actions concurring for the production of the highest good. The various duties form together a system of modes of action; this system results from the whole complex of the virtues of the individual, which in their active development are all directed toward the one undivided ethical end of man. The conception of the *permissible* belongs rather to law than to morals; for whatever belongs to the sphere of morals must in every particular case be completely determined through its relation as well to the ethical end of man as to his moral power and to the moral law. The conception of the permissible has no legitimate application in ethics except in a negative sense, as indicating that the description of an action is not yet sufficiently complete (is not yet sufficiently individualized) for its character to be scientifically estimated. But in this sense the conception does not contain an ethical qualification or mark, but only implies that such a mark is yet to be discovered.

The action of the reason is either organizing and formative, or symbolizing and indicative. Every interpenetration or "unity" of reason and nature, which implies a coming action of reason on nature is organic, while every such unity, which implies a past action of reason on nature, is symbolic. The distinction between the organic and the symbolic is crossed by the distinction between the universally like or identical, and the individually peculiar or differentiating character of ethical action.

Hence arise four provinces of ethical action, namely, those of intercourse or traffic, of property, of thought, and of feeling. The first is the province of organization with identity or of the development of common usage. The second is the province of organ-

ization with individuality, or of the development of the untransferable. Thought and language constitute the province of symbolism with identity, or of the community of consciousness. Feeling is the province of symbolism with individuality, or of the primitive variety of consciousness.

With these four ethical provinces correspond four ethical relations: legal right, sociability, faith, and revelation. Legal right is the ethical co-existence of individuals in intercourse or traffic. Sociability is the ethical relation of individuals as exclusive proprietors; it is the recognition of the proprietorship of others, so that what belongs to others may become ours, and conversely. Faith, or confidence in the truthfulness of statements made by another, expresses, in the general ethical sense, the relation of mutual dependence which exists between those who teach and those who learn in a common language. Revelation, in the general ethical sense, is the relation of individuals to each other in the separateness or individuality of their feelings (the content of these feelings being derived from the Idea which most controls each individual).

With these ethical relations correspond, again, four ethical organisms or goods: State, Society, School, and Church. The State is the form under which men are united for the exercise of the identically formative activity (for common action), under the distinction of authorities and subjects. Society is the union of men for individually organizing activity, under the distinction of personal friendship and more extended personal relations. The School (in the wider sense, including the University and Academy) is an association for identically symbolic activity, or it provides for a partnership in knowledge under the distinction of the learned and the public. The Church is an association for individually symbolic activity; it exhibits the union of a number of men of the same type for subjective activity of the cognitive function, or community in religion under the distinction of clergy and laity. These organisms all find in the family their common basis.—The cardinal virtues are discretion, perseverance (or bravery), wisdom, and love. The first is the combat against one's self, the second against others; the third is an inward life (vivification), the fourth an outward one.

Duties are divided into duties of law and of love on the one hand, and duties of vocation and of conscience on the other; the former distinction is founded on the distinction between universal and individual community of productive action, and the latter on that between universal and individual appropriation. The most general law of duty is: Act at every instant with thy whole moral energy, endeavoring to do thy entire moral work. That action is in each case required, as duty, which most promotes all the interests of morality. In all performance of duty the inward impulse and the outward occasion must coincide.

Philosophical ethics is related to the ethics of the Christian religion or to theological ethics in general (in which Schleiermacher distinguishes between operative and representative action, dividing the former into purifying and propagating action, and the latter into representation in worship and in the social sphere) as intuition (perception) to feeling, or as objective to subjective. The former has to do with the human reason as existing alike in all men, and can consider the moral consciousness as the postulate and condition of the religious consciousness. Theological ethics, on the contrary, postulates as primary the religious consciousness in the form of an inward propensity to religious belief and action. Christian ethics asks: What does Christianity, as an inward law, require? while dogmatics asks: What does Christianity imply as true? *

* It is obvious that Schleiermacher operates in his ethics too much with expressions such as reason, nature, etc., which are of very complex signification, and which, like symbols, may cover a multitude of diverse relations, and that in consequence of this he often contents himself with an abstract schematism,

§ 131. Closely following Kant, and rejecting the post-Kantian speculation, Arthur Schopenhauer (1788–1860) developed a doctrine which may be described as a transitional form from the idealism of Kant to the prevalent realism of the present. Schopenhauer teaches, namely, with Kant, that space, time, and the categories (among which the category of causality is treated by him as the fundamental one) have a purely subjective origin, and are only valid for phenomena, which are merely subjective representations in consciousness. In opposition to Kant, however, he denies that the reality, which is independent of our representations, is unknowable, and finds it in the Will, which, he avers, is fully known to us through internal perception. But here he involves himself in the following contradiction: he refers, in the development of his doctrine, if not space, yet at least temporality and causality and all the categories therewith connected to the will, although denying in his fundamental declaration of principles that they can have such a reference; this contradiction he does not, nor can he, avoid, and so his philosophy becomes incapable of a consequent, systematic development, and disproves itself. The absolutely real, according to Schopenhauer, cannot be termed a transcendental object; for no object is without a corresponding subject, and all objects are simply representations in the subject, and hence phenomena. The conception of will is taken by Schopenhauer in a far broader sense than that given to it by common usage. He includes in it not only conscious desire, but also unconscious instinct, and the forces which manifest themselves in inorganic nature. As intermediate between the one universal will and the individuals in which it appears, Schopenhauer posits, after the precedent of Plato, various Ideas, as real species (just as Schelling posited the same as intermediate between the unity of substance and the plurality of individuals). These Ideas are the stages of the objectification of Will. Every organism displays the Idea of which it is a copy, only after the loss of such power as is consumed in overcoming the Ideas which are of a lower order than its own. The pure representa-

where a more concrete development would be in place. Yet in spite of this deficiency his ethics has indisputably a high and permanent value on account of the manner in which the relation between goods, virtues, and duties is treated in it, and on account of the developed doctrine of goods which it contains. In the direction of moral action toward the highest good Schleiermacher has really discovered the single principle of moral judgments concerning subjective acts of will, which principle in Hegel's objectivistic treatment of ethics is concealed, and with Herbart falls apart into the various ethical Ideas (whose philosophical legitimacy Herbart has nowhere demonstrated) and remains unrelated to theoretical philosophy; Schopenhauer's pessimism admits of no positive ethics; Beneke took up again the fruitful idea which lies at the basis of Schleiermacher's ethics, and sought to develop it with logical consistency, replacing the abstract schematic formulæ of Schleiermacher by concrete psychological speculations founded on internal experience.

tion of the Ideas in individual shapes is Art. Consciousness first becomes manifest upon the highest stages in the objectification of will. All intelligence serves originally the will to live. In genius it is emancipated from this ancillary position and gains the preponderance. Since Schopenhauer perceives a progress in the negation of the inferior sensuous instinct, and yet, without being untrue to his principle, which ascribes true reality to will alone, cannot positively term this progress an acquired supremacy of reason, only a negative ethics remains possible for him. His ethical requirements are sympathy with the suffering, which is connected with all objectifications of the will to live, and, above all, the mortification in ourselves, not of life, but rather of the will to live, through asceticism. The world is not the best, it is the worst of all possible worlds; sympathy alleviates suffering, while asceticism destroys it by destroying the will to live, in the midst of life. In its negation of the sensuous nature in man, without positive determination of the true end of spiritual life, Schopenhauer's doctrine resembles the Buddhistic doctrine of Nirvana, or of the fortunate final state of saints purified by asceticism and who have entered into the unconscious state; it also resembles those doctrines of monastic asceticism which appear in the history of Christianity, but which modern thought avoids by denying all ethical dualism.

The following are Schopenhauer's works: *Ueber die vierfache Wurzel des Satzes vom zureichenden Grunde*, Rudolstadt, 1813; 2d ed., Frankfort-on-the-M., 1847; 3d edition, ed. by J. Frauenstädt, Leipsic, 1864. *Ueber das Sehen und die Farben*, Leips., 1816; 2d ed., 1854. *Die Welt als Wille und Vorstellung*, in four Books, together with a Supplement containing the critique of Kant's philosophy, Leipsic, 1819; second edition, increased by the addition of a second volume, *ibid.*, 1844; 3d ed., 1859. *Ueber den Willen in der Natur*, Frankf.-on-the-M., 1836; 2d ed., 1854; 3d ed., edited by J. Frauenstädt, Leipsic, 1867. *Die beiden Grundprobleme der Ethik* (on Freedom of the Will, and on the Foundation of Morals), Frankfort, 1841; 2d ed., Leipsic, 1860. *Parerga und Paralipomena*, 2 vols., Berlin, 1851; 2d ed., edited by Jul. Frauenstädt, *ibid.*, 1862. *Aus Schopenhauers handschriftlichem Nachlass, Abhandlungen, Anmerkungen, Aphorismen und Fragmente*, ed. by J. Frauenstädt, Leips., 1864. [The following translations from Schopenhauer's writings have appeared in the *Journal of Speculative Philosophy*, ed. by W. T. Harris, St. Louis, 1867–1871: *Schopenhauer's Doctrine of the Will*, transl. by C. L. Bernays, Vol. I., pp. 232–236; *Thoughts on Philosophy and its Method* (Chap. I. of the "*Parerga und Paralipomena*"), transl. by Charles Joséfé, Vol. V., pp. 193–209; *Thoughts on Logic and Dialectic* (Chap. II. of the same work), transl. by the same, *ib.*, pp. 307–319. Cf. article in the *Christian Examiner*, Vol. 53, pp. 66 seq.—*Tr.*]

Of Schopenhauer's doctrine and life have written Joh. Friedr. Herbart (review of Schopenhauer's principal work: *Die Welt als Wille und Vorstellung*, in the *Hermes*, 1820, Art. 3, pp. 131–149, signed E. G. Z., and reprinted in Herbart's Complete Works, Vol. XII., pp. 369–391; of the modifiers of the Kantian philosophy, Herbart terms Reinhold the first, Fichte the most profound, Schelling the most comprehensive, but Schopenhauer the clearest, most skilful, and most companionable; he says that Schopenhauer's work is extremely well worth reading, though useful only as an exercise in thinking, and that all features of the erroneous, idealistic-Spinozistic philosophy are united in Schopenhauer's clear mirror), F. Ed. Beneke (in the *Jena. allgem. Litteraturzeitung*, Dec. 1820, Nos. 226–229), Rosenkranz (in his *Gesch. der Kantischen Philos.*, Leipsic, 1840, pp. 475–481, and in the *Deutsche Wochenschrift*, edited by Karl Gödeke, 1854, No. 22), I. Herm. Fichte (*Ethik*, I., Leips., 1850, pp. 394–415), Karl Fortlage (*Genet. Gesch. der Philos. seit Kant*, pp. 407–423), Erdmann (*Gesch. der neuern Philos.*, III., 2, pp. 381–471, and *Schopenhauer und Herbart, eine Antithese*, in Fichte's *Zeitschrift für Philos.*, new series, XXI., Halle, 1852, pp. 209–226), Michelet (*A. Sch.*, a discourse

delivered in 1854 and published in Fichte's *Zeitschrift f. Ph.*, new series, XXVII., 1855, pp. 34–59 and 227–249), Frauenstädt (*Briefe über die Schopenhauer'sche Philosophie*, Leips., 1854; *Lichtstrahlen aus Schopenhauer's Werken*, Leips., 1862; 2d ed., *ib.*, 1867; *Memorabilien, Briefe und Nachlassstücke*, in *Arthur Schopenhauer, von ihm, über ihn*, by Frauenstädt and E. O. Lindner, Berlin, 1863; Jul. Frauenstädt, *Ueber Sch.'s Pessimismus, Geschichtsphilos.*, etc., in the *Deutsch. Mus.*, 1866, Nos. 48 and 49; 1867, Nos. 22 and 23, etc.), Ad. Cornill, (*Arth. Schop. als eine Uebergangsformation von einer idealistischen in eine realistische Weltanschauung*, Heidelb., 1856), C. G. Bähr (*Die Sch.'sche Philos.*, Dresden, 1857), Rud. Seydel (*Schopenhauer's System dargestellt und beurtheilt*, Leips., 1857), Ludwig Noack (*Arthur Schop. u. s. Weltansicht*, in *Psyche*, II., 1, 1859; *Die Meister Weiberfeind* [Schopenhauer] *und Frauenlob* [Daumer], *ibid.*, III., 3 and 4, 1860; *Von Sansara nach Nirwana*, in the *Deutsche Jahrb.*, Vol. V., 1862; in the last-named article the weapons of the most delicate ridicule are directed against Schopenhauer's extreme over-estimation of himself), Trendelenburg (in the second edition of his *Log. Untersuchungen*, Leips., 1862, Chapter X.), R. Haym (*Arthur Schopenhauer*, in the *Preuss. Jahrb.*, Vol. XIV., and printed separately, Berlin, 1864), Wilh. Gwinner (*Schopenhauer aus persönlichem Umgang dargestellt*, Leipsic, 1862; *Schopenhauer u. s. Freunde*, Leips., 1863), A. Foucher de Careil (*Hégel et Schop.*, Paris, 1862), also Dav. Ascher and E. O. Lindner, Nagel, Suhle, Ed. Löwenthal, Spiegel, Rob. Springer, Wirth, and others, in various articles and essays, H. L. Korten (*Quomodo Schopenhauerus ethicam fundamento metaphysico constituere conatus sit. Diss. Hal.*, 1864), Steph. Pawlicki (*De Schopenhaueri doctrina et philosophandi ratione, Diss. Vratislav.*, 1865), Victor Kiy (*Der Pessimismus und die Ethik Schopenhauers*, Berlin, 1866), Chr. A. Thilo (*Ueber Schopenhauer's ethischen Atheismus*, in the *Zeitschr. für exacte Philos.*, Vol. VII., No. 4, Leipsic, 1867, pp. 321–356, and VIII., No. 1, *ibid.*, 1867, pp. 1–25; also published separately), Al. Scherzel (*Charakteristik des Hauptlehren Schopenhauers*, Programme of the Czernowicz *Real-Schule*, 1866), E. Von Hartmann (*Ueber eine nothwendige Umbildung der Schopenhauer'schen Philosophie*, in Bergmann's *Philos. Monatschrift*, II., pp. 457–469), Frauenstädt (in *Unsere Zeit*, Nos. 21, 22, 1869). [*A. Schopenhauer* von Dr. D. Asher, Berl., 1871. *Westm. Rev.*, Apl. 1853.]

Arthur Schopenhauer was born in Dantzic, February 22, 1788. His father was a banker. His mother was the authoress Johanna Schopenhauer (writer of books of travel and novels). After journeying in his youth with friends through France and England, he entered in 1809 the University of Göttingen, where, besides physical science and history, he studied especially philosophy under the direction of Gottlob Ernst Schulze, the skeptic, by whose advice he read, in preference to all other philosophers, Plato and Kant. In 1811, at Berlin, he heard Fichte, whose doctrine, however, left him unsatisfied. He took his degree in 1813 at Jena, with the essay on the "Fourfold Root of the Principle of Sufficient Reason" (*Ueber die vierfache Wurzel*, etc.). The following winter was spent by him at Weimar in the society of Goethe, whose theory of colors he adopted. Here, too, he devoted his attention to the study of Hindû antiquity. From 1814 to 1818 he lived in Dresden, occupied with the preparation of his optical essay and, particularly, of his principal work: "The World as Will and Representation" (*Die Welt als Wille und Vorstellung*). As soon as the manuscript of this work was completed, he undertook a journey to Rome and Naples, and, afterwards, in 1820, qualified as a lecturer at Berlin, with the University in which place he was connected as a "private lecturer," or "*Docent*," until 1831, although neither zealous nor successful in his instructions. In 1822–1825 he was again in Italy. In 1831 the cholera frightened him all the more easily away from Berlin, since, on account of his ill success, his academical life had long since become valueless for him. From that time on he lived in private at Frankfort-on-the-Maine, where he died on the 21st of September, 1860. His later writings contain contributions to the development and perfection of his system, but are much more noted for their piquant utterances against the prevailing notions in theology and the attempts of philosophers to justify the same, to do which, as Schopenhauer (venting his personal displeasure with primary reference, doubtless, to the success of Hegel, his more fortunate antagonist, and to Schelling's call to Berlin) with incessant repetition insinuates, these "Professors of Philosophy" were paid by the government. These insinuations, which were put forth in ever-changing form and not without a display of originality and wit, and which furnished nourishment for the

doubt whether what was accustomed to be publicly taught owed its acceptance to a conviction of its truth or to the civil organization, which provides office and bread only for him who assents, and so controls the "will to live"—these insinuations opened for Schopenhauer's writings that way to the public which his system, originally noticed only by a few men of profession, had been unable to find; but from the time when a wider circle of readers interested themselves in his more exoteric utterances there were not wanting, as is usual in such cases, thinkers who, either approving or opposing, gave more careful attention to the system as such. For a time, during and after Schopenhauer's last years, it was in some circles a matter of fashion to believe in Schopenhauer. But his doctrine lacks the most essential condition of permanence, namely, the possibility of an all-sided and intrinsically harmonious, systematic development. Original aphorisms, loosely united with each other in a seeming whole, but in reality destroying each other by scarcely concealed contradictions, can only produce an exceedingly transient effect. Only as elements of a more satisfying system can the truths which are undeniably contained in Schopenhauer's doctrine permanently assert themselves.

In his graduating essay, on the *Fourfold Root of the Principle of Sufficient Reason*, Schopenhauer distinguishes between the principles of being, becoming, action, and knowledge (*principium essendi, fiendi, agendi, cognoscendi;* this order in naming them is termed by Schopenhauer the systematic; the didactic order being: *fiendi, cognoscendi, essendi, agendi*). The principle of sufficient reason, considered generally, expresses, according to S., the regular connection which subsists among all our ideas, and which in point of form can be *à priori* determined, and on account of which, further, nothing that subsists alone and independently, and nothing that is single and disconnected, can become an object of knowledge for us. The nature of this connection varies with the nature of the objects of our ideas. Everything, namely, which can become an object for us, and consequently all our ideas (representations), are divisible into four classes, and the principle of sufficient reason assumes a corresponding fourfold form. The *first class* of possible objects for our representative faculty is that of intuitive, complete, empirical representations. The forms of these representations are the forms of the internal and external senses, namely: time and space. Within this class of objects the principle of sufficient reason has the character of a law of causality. Schopenhauer terms it, as such, the principle of the sufficient reason of becoming, *principium rationis sufficientis fiendi.* Whenever a new state commences in one or several objects, this state must have been preceded by another, which it follows regularly, *i. e.*, as often the other state exists; such sequence is termed consequence, and the first state the cause, the second the effect. As corollaries from the law of causality follow the law of inertia—since without an influence exerted from without the earlier state cannot be changed,—and the law of the persistence of substance—since the law of causality applies only to states and not to substances themselves. The forms of causality are: cause in the narrowest sense of the term, stimulus, and motive. Changes in the inorganic kingdom take place as the result of causes in the narrowest sense of the term, where action and reaction are equal; changes in organic life follow from stimuli, and the conscious, external actions of all animal existences follow motives, the medium of which is knowledge. The difference between cause, stimulus, and motive is a consequence of varying degrees of susceptibility in the beings or things on which they act.* The *second class*

* On the part taken by the understanding—which controls the application of the law of causality—in shaping the results of perception, Schopenhauer, in this connection, says much that is worthy of attention; but he labors constantly under the erroneous notion that it is a free creation of the order of the contents of consciousness rather than a thinking reproduction of the real order of external existences that the mind has to effect.

of objects for the thinking subject is made up of conceptions or abstract representations. To them and to the judgments derived from them applies the principle of the sufficient reason of knowledge, *principium rationis sufficientis cognoscendi,* which affirms that if a judgment is to express a cognition, it must have a sufficient reason; having such reason it receives the predicate *true.* Truth is (according to Schopenhauer's, in part, very arbitrary division) either (1) logical—*i. e.*, it is a formal correctness in the connection of judgments—or (2) material, founded on sensuous intuition—*i. e.*, in so far as the judgment is founded directly on experience, empirical truth—or (3) transcendental, founded on the forms of knowledge contained in the understanding and in the pure sensibility, or (4) metalogical—by which latter term Schopenhauer designates that truth which is founded on the formal conditions of all thought, as contained in the reason, namely, the truth of the principles of identity, contradiction, and excluded middle, and of the principle of the sufficient reason of judgments itself. The *third class* of objects for the representative faculty consists of the formal portion of our complete representations, viz.: the intuitions, given *à priori,* of the forms of the external and internal senses, space and time. As pure intuitions these are, by themselves and separated from our complete representations, objects for the representative faculty. Space and time have the peculiarity that all of their parts stand to each other in a relation, with reference to which each of them is determined and conditionated by another. In space this relation is termed position; in time it is termed sequence. The law by which the parts of space and time are mutually determined with reference to those relations is termed by Schopenhauer the principle of the sufficient reason of being, *principium rationis sufficientis essendi.* In time every instant depends on the preceding one; on this nexus between the parts of time rests all numeration; every number presupposes all the numbers before itself as grounds or reasons of its existence. In like manner all geometry reposes on the nexus of position among the parts of space; it is a scientific problem to discover such proofs as not merely demonstrate in any accidental manner—as if they were "mouse-trap proofs"—the truth of propositions, but deduce them from their ontological grounds.* The *last class* of objects of the representative faculty is found in the immediate object of the internal sense, the willing subject, which is an object for the knowing subject, and is indeed only given to the internal sense, whence (as Schopenhauer, with Kant, erroneously assumes) it appears only in time and not in space.† With reference to volition the principle of sufficient reason assumes the form of a principle of the sufficient reason of action, *principium rationis sufficientis agendi,* or the law of the action of motives. In so far as motives are external conditions of action they are causes, and have been considered above in connection with the first class of objects, which is made up of the contents of the material world given in external perception. But the action of motives is known by us not merely, like that of all other causes, from without, and hence indirectly, but also from within, with absolute directness, and hence in their entire mode of operation; here we learn

* *I. e.*, proofs which are commonly termed genetic; for in reality the genetic and causal reference is not wanting, as Schopenhauer assumes, in mathematical necessity; if we conceive numbers as arising from the combination and separation of unities, and geometrical figures as arising through the motion of points, lines, etc., we become conscious of their genesis and of the causality which is objectively grounded in the nature of homogeneous plurality and spatial co-existence.

† That the will is the exclusive object of the internal sense, or of self-consciousness, is a fundamental error of Schopenhauer, from which Kant was free; sensation and feeling, representation and thought, are, no less than desire and will, immediate objects of our acts of self-apprehension. Will, in the proper sense of the term, is desire connected with knowledge, and could therefore not be known if the act of knowing were itself really unknowable.

by experience the mystery of the production of effects by causes in its innermost nature; the action of motives ["*Motivation*"] is causality seen from within.*

Schopenhauer's principal work: "The World as Will and Notion" (*Die Welt als Wille und Vorstellung*) is divided into four Books, the first and third of which relate to the world as notion or representation, and the second and fourth to the world as will. Book I. treats of the notion as subject to the principle of sufficient reason, and consequently as object of experience and science; and Book III. of the notion as independent of that principle, or as Platonic Idea, and consequently as object of art. Book II. relates to the objectifying of the will, and Book IV. to the affirmation and negation of the will to live (which accompany the attainment of self-knowledge). Subjoined is a critique of the Kantian philosophy.

The first book begins with the proposition: The world is my notion. This proposition, says Schopenhauer, is true for all living and knowing beings, although man alone can make it a subject of reflected, abstract consciousness, to which consciousness man rises through philosophical speculation. It is only under the form of the distinction into object and subject that any notion whatever, whether abstract or intuitive, pure or empirical, is possible or conceivable. Everything which exists for cognition, and hence this entire world, is objective only with reference to the knowing subject; it is the perception of the percipient, or a notion. Everything which belongs or can belong to the world is inevitably subject to this dependence on the knowing subject, for whom only it exists.† The essential and hence universal forms of all objects can, as Schopenhauer assumes with Kant, be discovered and completely known without the knowledge of these objects, in a purely subjective manner, *i. e.*, they are contained *à priori* in our consciousness. But Schopenhauer affirms, in addition, that the principle of sufficient reason is the common expression for all objective forms, of which we are conscious *à priori*. He teaches that the existence of all objects, in so far as they are objects, notions, and nothing else, consists entirely in their necessary reference to each other, which reference the principle of sufficient reason expresses. For every science

* But in reality, in all cases, in mechanical and organic processes as well as elsewhere, the inner ground or reason and the external conditions belong together and constitute in their union the total cause, which therefore can never be simple; both sides must be united in one law of causality. This law, moreover, finds then, as above mentioned, its application to the objects of mathematical inquiry as well as to other objects. Contrasted with causality is the reason or ground of cognition (*ratio cognoscendi*), but not as connected with a particular class of objects, but only as the subjective recognition of an objectively real nexus through an inference from cause to effect, or conversely, from effect to cause, or from one effect to a second effect of the same cause, belonging with the first. Thus Schopenhauer's four forms of the principle of sufficient reason are to be reduced to the two which Kant and others before him had already distinguished, namely, to the principle of causality—which may be expressed in the formula: every change has a cause, which consists of the inner ground or reason and the external condition—and the principle of the reason of knowledge, which, as I have sought to show in my *System of Logic* (§ 81, cf. § 101), affirms that the logical combination of judgments in the syllogism must correspond with the objective and real causal nexus.

† Schopenhauer believed that in the simple phrase: "No object without subject" (like Fichte's "no non-Ego without an Ego") he had apprehended more purely and exhibited more clearly the subjectivity of all our knowledge than Kant, who arrived at his subjective theory of knowledge by a detailed consideration of the manner in which knowledge is conditionated by the subjective nature of man; for Kant, consequently, there remained (says Schopenhauer) a realm of "transcendental objects" or "things-in-themselves," whose existence Schopenhauer denied. But although, obviously, all notions are in the knowing subject, yet the question arises, whether and to what extent they agree with that which is not identical with this subject, and which exists not merely in him but by and for itself; this question is not answered in Schopenhauer's simple "no object without subject," or, rather, the non-agreement of the representation with a real object, which Schopenhauer, apart from the "will," everywhere assumes, is simply pre-supposed by him, whereas Kant's minute consideration of the "elements" of our knowledge, although it did not bring him to the end aimed at, yet opened up a way to it.

this principle is the organon, and the special object of the science is its problem. Materialism leaves out of consideration the knowing subject and the forms of knowledge, although these are as clearly pre-supposed in the coarsest matter with which materialism would begin, as in the organism, with which it would end. "No object without subject" is the principle which forever renders all materialism impossible.* On the other hand, continues Schopenhauer, Fichte—who began with the knowing subject, in diametrical opposition to materialism, which begins with the object known—overlooked the circumstance that with the subjective he had already posited the objective, because no subject is conceivable without object, and that his deduction of object from subject, like all deduction, rested on the principle of sufficient reason, which is nothing else than the universal form of the objective as such, and consequently presupposes the objective, but has no value or application before or apart from the objective. The only proper starting-point for philosophy, according to Schopenhauer, is the *notion*, as the primitive fact of consciousness, the first and most essential fundamental form of which fact is the division into subject and object; the form of the object, on the contrary, is the principle of sufficient reason in its various shapes. From this complete and universal relativity of the world as notion Schopenhauer infers that the innermost essence of the world must be sought in another aspect of it, an aspect altogether different from its aspect as notion. The notion has need of the knowing subject in order to its existence. As the existence of the world is dependent on the existence of the first knowing being, so, and not less necessarily, the latter is dependent on a long chain of preceding causes and effects, into which it enters itself as a diminutive link. This antinomy finds its solution in the consideration that the objective world, the world as notion, is only one side of the world, and that, so to speak, its external side, and that the world has another entirely different side, which is its innermost essence, its substance, the thing-in-itself, which, from the most direct of the forms in which it is objectified, is to be termed *will*.

In the second book Schopenhauer treats of the objectifying of the will. To the knowing subject his own body is presented in a twofold manner, first as a representation in rational perception, or as one among many objects and subject to the law of the latter, and secondly as that which is immediately known to every one under the name of will. Volition and the action of the body † are not two different states known objectively and connected by the band of causality; on the contrary, they are one and the same, differing only in the completely different ways in which they are presented to the knowing subject. The action of the body is simply the objectified act of the will, *i. e.*, the act of the will brought within the sphere of perception. The whole body is nothing but the will objectified, *i. e.*, the will become notion or representation, the objectivity of the will. Whether all other objects known to the individual as notions are, like his own body, the manifestations of a will—this is the proper sense of the question as to the reality of the external world. The returning of a negative answer to this question is, says Schleiermacher, theoretical egoism, which can never be confuted by proofs, but which, nevertheless, has surely never been otherwise employed in philosophy than as a skeptical sophism, *i. e.*, for show, while as a serious conviction it is only to be found in the madhouse if anywhere. Since, therefore, the disproof of theo-

* Provided, namely, that the alleged non-agreement of the subjective forms of apprehension: space, time, and causality, with objective reality, were really proved (as Schopenhauer assumes that it is) by this principle, or that it had been demonstrated by Kant with really cogent arguments.

† Or the action of a part of the brain?

retical egoism is, while impossible, also not necessary,* we are justified in employing the twofold knowledge which is given us, in two wholly heterogeneous ways, of the essence and operation of our own bodies, as a key to the essence of every phenomenon in nature, and in judging all objects other than our bodies, and which, therefore, are not presented to our consciousness in a twofold manner, but simply as notions or representations, after the analogy of our bodies; and we are, therefore, further justified in assuming that as these objects, on the one hand, like our own bodies, are notions, and in so far of the same nature with our bodies, so, on the other hand, if we make abstraction of the existence of these objects as notions of a knowing subject, that which afterwards remains must be, in its innermost essence, the same with what we term will. The will, as a "thing-in-itself," is completely different from its manifestation or appearance, and is wholly free from the forms of the latter; it enters into these forms when it appears (becomes phenomenal); they, therefore, relate only to it as objective. The will, as a thing-in-itself, is one, while its manifestations in space and time are innumerable. Time and space constitute the principle of individuation (*principium individuationis*).†

* The disproof in question, if effected, must rest on premises which, for Schopenhauer (as well as for Berkeley also), prove too much, since they militate against the denial of the reality of the external world, in the sense in which Schopenhauer denies it; if, on the other hand, Schopenhauer's denial be maintained, it involves as a logical consequence the denial also of the plurality of animate or willing beings, whence Schopenhauer, in order to escape this unfortunate consequence, is obliged to resort to the "madhouse" argument. In reality there was great need, not of a proof that so-called "theoretical egoism" or "Solipsism" (the assumption by any one man that he alone exists) is a piece of lunacy, but of a proof that Schopenhauer's doctrine of the subjective nature of all categories, and his denial of their applicability to "things-in-themselves" do not logically lead to this absurd doctrine: How is the real individualization of the one Will in a plurality of willing, perceiving, and thinking subjects logically conceivable, without the assumption of the objective, real validity of the categories of unity, plurality, etc.?

† That we know the interior nature of other existences by the analogy of our own interior is a truth which had, indeed, been previously recognized by some thinkers, but which it is Schopenhauer's merit to have maintained with peculiar force. His exposition of this truth, although incomplete, is sufficient to assure for him a permanent place in the history of philosophy. Beneke, whose immediate master in this doctrine was Schopenhauer, added to it the essential complementary consideration, that not only our will, but also, with the same directness and with equally perfect truth, the action of our perceptive and intellective faculties, is known by us in internal perception, unmodified by any subjective form of apprehension foreign to the objects known, and the same view is developed, on the basis of Beneke's teaching, in my *System of Logic*, § 40 *et seq.* But in the philosophy of Schopenhauer, who assents to Kant's doctrine of time as simply a subjective form of human apprehension, there remains the inconsistency, that while the will in the case of self-apprehension presents itself only under the form of temporality, it must, nevertheless, exist *per se* without this form, without which, however, it is not conceivable as will. A further unremoved contradiction is this, that while the individuation of the will constitutes, on the one hand, the condition of the existence of the individual intellect, on the other it pre-supposes the previous existence of this intellect, since time and space, which together form the principle of individuation, have, according to the doctrine of Kant and Schopenhauer, like causality, no validity except as forms of the perceiving and thinking subject. R. Seydel has shown most completely how many contradictions, owing to this subjectivism, are involved in the development of Schopenhauer's theory of will. To this must be added the universal confusion, by Schopenhauer, of the conception of *will*, which involves the notion of something actively sought after and the conviction of its attainability, with the conception of *instinct*, which may exist without these logical elements. If our intellects with their activities were not directly knowable by us, neither could our wills be thus known; the most that we could thus know would be our blind instincts; and yet Schopenhauer, in the development of his theory, is unable to do without the conception of the will in the most complete sense of that term. He says that he will name the genus according to its most eminent species, and yet he only produces hereby the false appearance, as though the forces of nature, since he terms them the will in nature, were as well known to us as the human will, and as though their apparently intelligent action were as easily comprehensible for us as is that of the conscious will. The figurative and the literal senses of the term *will* are confounded. Schopenhauer leaves uninvestigated the question whether all forces and all instincts do not pre-suppose internal states or qualities, which, more analogous to our ideas than to our desires, are in themselves not forces, but become such only through their

In individual things, as they appear to us in time and space, and conformably to the principle of sufficient reason, the thing-in-itself, or the will, becomes only mediately objective; between the will and the individual object stands the Idea, as that in which alone the will is immediately objective. The Ideas are the stages of the objectification of the will; imperfectly expressed in numberless individuals, they exist as the unequalled patterns of the latter or as the eternal forms of things, not entering themselves into space and time, which are the media of individual things, but immovable, unchangeable, ever existent, and uncreated, while individual things rise into being and decay, are ever becoming, but never are. The lowest stage in the objectification of the will is represented by the most general forces of nature, which are either present in all matter without exception—*e. g.*, gravity, impenetrability—or are variously distributed through it, so that one portion of matter is controlled by one set of forces, and another by another, the various portions being thus specifically differentiated; examples are: rigidity, fluidity, elasticity, electricity, magnetism, chemical attributes and qualities of every kind. The higher stages in the objectification of the will, upon which individuality appear swith ever-increasing significance, are manifested in the plants and animals up to man. Every stage disputes with another its matter, space, and time. Each organism represents the Idea of which it is an image, only with such decrement of force as is involved in the overcoming of the inferior Ideas which dispute its matter. According as the organism succeeds in overcoming those forces of nature which express inferior stages in the objectification of the will, it becomes a more or less perfect expression of its Idea, *i. e.*, it stands nearer to or further from the ideal of beauty in its species.*

On this theory of ideas rests the theory of art given by Schopenhauer in Book III. The Idea is viewed as not having yet entered into the subordinate forms of cognition, which are comprehended under the principle of sufficient reason, but as bearing already the most general form of cognition, that of all thought, in that it assumes the form of an object for a subject. As individuals we have no knowledge except such as is controlled by the principle of sufficient reason; thus the knowledge of the Ideas is excluded. We can only rise from the knowledge of concrete things to the knowledge of Ideas when an alteration takes place in the knowing subject corresponding with the great change in the whole nature of the object to be known—an alteration such that the subject, when he becomes cognizant of the Ideas, remains no longer individual. Cognition belongs to the higher stages in the objectification of the will. Originally and essentially cognition is but the servant of the will; with animals this servitude never ceases. The cognition of Ideas implies the cessation of this servitude in man, so that the knowing subject ceases to be merely individual, and rests in fixed contemplation of the object presented for cognition, apart from its connection with any other object, in which contemplation he becomes lost. When one ceases under the guidance of the various forms of the principle of sufficient reason to follow after the relations of things

relations to other similar states or qualities. With Schopenhauer's limitation of the real essence of man to his will is connected, further, in practical philosophy, the unfortunate consequence that Schopenhauer is unable consistently to recognize the positive significance of representation and cognition, and therefore, since the mere "will to live" furnishes no true satisfaction, is unable to point beyond this to a more elevated ethical end, but can only direct man's ethical endeavors to the extirpation of that will.

* It is obvious that in his theory of Ideas, Schopenhauer, like Plato and Schelling, falsely objectifies and hypostatizes abstractions of human thought—as, also, in his doctrine of the one Will as the Thing-in-itself, where he imitates the Eleatics, the Megarians, and Spinoza. How the Ideas are to exist objectively and *spacelessly* in organisms which are essentially founded on *form* is left absolutely unintelligible.

to each other and to one's own will, when, therefore, one no longer considers in things their Where, When, Why, and Whereto, but simply and only their What, and when, further, this consideration takes place, not through the medium of abstract thought, but in calm contemplation of the immediately present natural object, then that, which is so cognized, is no longer the single thing as such, but the Idea, the eternal Form, the immediate objectivity of the Will at the stage of the Idea, and the contemplating Subject is pure, involuntary, painless, timeless, knowing Subject. This sort of knowledge is the source of art. Art, the work of genius, repeats the eternal Ideas apprehended in pure contemplation, the essential and permanent in all the phenomena of the world. Its only aim is the communication of this knowledge. According to the material, in which it repeats, it is plastic art, poetry, or music.*

The reality of life, the will, existence itself, is perpetual suffering, partly pitiable, and partly dreadful; the same, on the contrary, as simple notion, viewed in pure intuition or repeated by art, affords a significant spectacle: freedom from torment in the enjoyment of the beautiful. But this knowledge does not release us forever from life, but only for moments, and is, therefore, not the complete way out of life, not a *quietive* of the will, such as is necessary for permanent release. The will *affirms itself*, when, after the knowledge of life has begun, it wills life in the same manner in which it previously without knowledge, as blind impulse, willed it. The opposite of this, the *negation* of the will to live, appears when, as the result of the knowledge of life, volition ceases, the various known individual phenomena no longer acting as motives to volition, but the whole knowledge of the essence of the world, which is acquired through the apprehension of the Ideas, and which is a mirror of the will, becoming a *quietive* of the will, and the will thus freely renouncing and annihilating itself. This idea is developed by Schopenhauer in Book IV., which contains his Ethics. The first requirement of ethics, according to him, is such sympathy with the suffering inseparable from all life as rests on the consciousness of the identity of our will with all will; but the highest ethical work of man is the annihilation—not of life, but—of the will to live, by asceticism.†

§ 132. In opposition to Fichte's subjective idealism and to Schelling's renewed Spinozism, Johann Friedrich Herbart (1776–1841), on the basis of the realistic element in the Kantian philosophy, as also of Eleatic, Platonic, and Leibnitzian doctrines, developed a philosophical doctrine, which he himself named, from its predominant character, realism. Philosophy is defined by Herbart as the elaboration of conceptions. Logic aims at clearness in conceptions, metaphysics at the correction of them, and æsthetics, in that wider sense in which it includes

* Schopenhauer, in order to separate æsthetic apprehension from the "will," allies it very closely to theoretical apprehension, without, however,—since he admits the notion of an *enjoyment* of the beautiful,—being able to advance to a complete separation of it from all relation to the will, on which all feeling depends for its condition. In his theory of Ideas logical universality is converted into æsthetic perfection.

† Schopenhauer sympathizes with the Hindû penitents, with the Buddhist doctrine of the termination of suffering by exit from the checkered world of life (*Sansara*) and entering into unconsciousness (*Nirvana*), and with the ascetic elements in Christianity. But his senile ethics knows no positive aim for the sake of which the renunciation and destruction of whatever is inferior is a moral duty. To this end it were necessary to give more prominence (as Frauenstädt has attempted to do) to the relation of the "will" to the "intellect," a relation which is essential in the "will" from its lowest stages up.

ethics, at the completion of them by the addition of qualifications of worth. Herbart's logic agrees in principle with Kant's. His metaphysics rests on the presupposition, that in the formal conceptions furnished by experience, and especially in the conception of a thing with several attributes, in the conception of alteration, and in the conception of the Ego, contradictions are contained which render necessary a transformation of those conceptions. The removal of these contradictions is, according to Herbart, the proper work of speculation. Being or absolute position cannot be thought as involved in contradictions; hence the conceptions cannot be left unchanged. But, on the other hand, being must be so conceived that it may explain the appearances given in experience, for all appearance points to an equal modicum of being. Consequently the conceptions in question, although they cannot be retained unmodified, are yet not to be wholly rejected, but rather to be methodically transformed. The contradictions in the conception of the thing with several attributes force us to the theory that there exists a multiplicity of simple, real essences, each possessing a simple quality. The contradictions in the conception of alteration lead necessarily to the theory of the self-preservation or persistence of these simple, real essences, whenever, in the case of a mutual interpenetration of such essences, a "disturbance" (modification) of their qualities is threatened. The contradictions in the conception of the Ego force us to the distinction between "apperceived" and "apperceiving" ideas; but the mutual interpenetration and unity of ideas prove the simplicity of the soul as their substratum. The soul is a simple, spaceless essence, of simple quality. It is located at a single point within the brain. When the senses are affected, and motion is transmitted by the nerve to the brain, the soul is penetrated by the simple, real essences which immediately surround it. Its quality then performs an act of self-preservation in opposition to the disturbance, which it would otherwise suffer from the—whether partially or totally—opposite quality of each of these other simple essences; every such act of self-preservation on the part of the soul is an idea. All ideas (representations) endure, even after the occasion which called them forth has ceased. When there are at the same time in the soul several ideas, which are either partially or totally opposed to each other, they cannot continue to subsist together without being partially arrested; they must be arrested, *i. e.*, become unconscious, to a degree measured by the sum of the intensities of all these ideas with the exception of

the strongest. This quantum of arrest is termed by Herbart the "sum of arrest." The part of each idea in this sum of arrest is greater the less intense the idea is. On the intensive relations of ideas and on the laws of the change of these relations are founded the possibility and the scientific necessity of applying mathematics to psychology. Herbart makes æsthetics, the most important part of which, with him, is the ethics, independent of theoretical philosophy. Æsthetic judgments grow out from the satisfaction or dissatisfaction which is connected with certain relations, ethical judgments arising, in particular, from the satisfaction or dissatisfaction connected with relations of will. The Idea (or "typical conception") of interior freedom has reference to the agreement of the will with the moral judgment concerning it; the Idea of perfection has reference to the mutual relations of the different volitions of the same individual; the Idea of benevolence or love, to the agreement of the will of one person with the will of another, accompanied by a sentiment of satisfaction; the Idea of legal right, to the avoiding of the dissatisfying conflict which arises from the direction of several wills at the same time toward the same object; and the Idea of retribution or equity to the removal of unpleasing inequality in the case of two or more parties who are unlike in their well or ill doing. Pedagogic, as also the science of politics, rests on ethics, which determines their ends, and psychology, which points out their means. The State, in its origin a society protected by force, has for its end the exhibition of all the ethical Ideas in a society animated by them. The conception of God—in defence of the validity of which Herbart develops the teleological argument—gains in religious significance in proportion as it becomes more fully determined by ethical predicates. Every attempt at a theoretical elaboration of philosophical theology is incompatible with the Herbartian metaphysics.

Of Herbart's writings (a chronological list of which is given by Hartenstein at the end of Vol. XII.) the following are the most important:—

Ueber Pestalozzi's neueste Schrift: wie Gertrud ihre Kinder lehrte, in *Irene, eine Monatschrift*, ed. by G. A. von Halem, Vol. I., Berlin, 1802, pp. 15–51; the same reprinted in Herbart's *Minor Works*, Vol. III., p. 74 seq., and in the *Complete Works*, XI., p. 45 seq.

Pestalozzi's Idee eines A B C der Anschauung als ein Cyclus von Vorübungen im Auffassen der Gestalten wissenschaftlich ausgeführt, Göttingen, 1802; *zweite, durch eine Abh. über die ästhetische Darstellung der Welt als das Hauptgeschäft der Erziehung vermehrte Aufl.*, *ibid.*, 1804. *Werke*, XI., p. 79 seq.

De Platonici systematis fundamento commentatio (upon entering upon his duties as an Extraordinarius at Göttingen), Gött., 1805. *W.*, XII., p. 61 seq. *Kl. Schr.*, Vol. I., p. 67 seq.

Allgemeine Pädagogik, aus dem Zweck der Erziehung abgeleitet, Göttingen, 1806, *W.*, X., p. 1 seq.

Hauptpunkte der Metaphysik, Gött., 1806 and 1808, *W.*, III., p. 1 seq. *Kl. Schr.*, I., 199.

Hauptpunkte der Logik (originally published as a Supplement to the last-named work, 1808), Gött., 1808. *Kl. Schr.*, I., 254. *W.*, I., 465 seq.

Allgemeine praktische Philosophie, Göttingen, 1808. *W.*, VIII., p. 1 seq.

Psychologische Bemerkungen zur Tonlehre, in *Königsb. Archiv*, Vol. I., Art. 2; *W.*, VII., p. 1 seq.; *Psycholog. Untersuchung über die Stärke einer gegebenen Vorstellung als Function ihrer Dauer betrachet*, *ib.*, Art. 3; *W.*, VII., p. 29 seq.

Theoriæ de attractione elementorum principia metaphysica, Königsberg, 1812. *W.*, IV., 521 seq. *Kl. S.*, I., 409. This work was republished at Berlin, in 1859, in a translation from the Latin executed by Karl Thomas and with an Introduction by the same.

Lehrbuch zur Einleitung in die Philosophie, Königsberg, 1813, 2d ed., 1821, 3d ed., 1834, 4th ed., 1837, *W.*, I., 1 seq.

Lehrbuch zur Psychologie, Königsberg and Leipsic, 1816, 2d revised edit., 1834, *W.* V., 1 seq.

Gespräche über das Böse, Königsberg, 1817, *W.*, IX., 49 seq. *Kl. Schr.*, II., 115.

Ueber den Unterricht in der Philosophie auf Gymnasien, supplement to the 2d edition of the *Lehrb. zur Einl. in die Philosophie*, *W.*, XI., p. 396. *Kl. S.*, III., 98.

De attentionis mensura causisque primariis psychologiæ principia statica et mechanica exemplo illustraturus scripsit J. F. Herbart, Königsberg, 1822. *W.*, VII., 73 seq. *Kl. Schr.*, II., 353 seq.

Ueber die Möglichkeit und Nothwendigkeit, Mathematik auf Psychologie anzuwenden, Königsberg, 1822, *W.*, VII., 129 seq. *Kl. S.*, II., 417.

Psychologie als Wissenschaft, neu gegründet auf Erfahrung, Metaphysik und Mathematik, Königsberg, 1824–25, *W.*, V. and VI.

Allgemeine Metaphysik nebst den Anfängen der philosophischen Naturlehre, Königsberg, 1828–29, *W.*, III. and IV.

Kurze Encyclopädie der Philosophie, aus praktischen Gesichtspunkten entworfen, Halle, 1831, 2d ed., 1841, *W.* II.

De principio logico exclusi medii inter contradictoria non negligendo commentatio, Gött., 1833, *W.*, I., 533 seq. *Kl. S.*, II., 721.

Umriss pädagogischer Vorlesungen, Gött., 1835, 2d ed., 1841, *W.*, X., 185 seq.

Zur Lehre von der Freiheit des menschlichen Willens, Briefe an Herrn Professor Griepenkerl, Gött., 1836, *W.*, IX., 241 seq.

Analytische Beleuchtung des Naturrechts und der Moral, Göttingen, 1836, *W.*, VIII., 213 seq.

Psychologische Untersuchungen, Nos. 1 and 2, Gött., 1839–40, *W.*, VII., 181 seq.

Joh. Friedr. Herbart's kleinere philos. Schriften und Abhandlungen nebst dessen wissenschaftlichem Nachlasse, edited by G. Hartenstein, 3 vols., Leipsic, 1842–43. (These works have also been included in the complete edition of Herbart's writings.)

The Complete Works of Herbart have been edited in 12 vols. by G. Hartenstein, Leipsic, 1850–52. Of his life Hartenstein treats in the introduction of his edition of the minor philos. works and essays of Herbart, Vol. I., Leipsic, 1842; cf. also Voigdt, *Zur Erinnerung an Herbart* (words spoken on the 28th of October, 1841, in the public session of the Royal German Society at Königsberg), Königsberg, 1841; Joh. Friedr. Herbart, *zur Erinnerung an die Göttingische Katastrophe im Jahr 1837, ein Posthumum* (ed. by Taute), Königsberg, 1842; F. H. Th. Allihn, *Ueber das Leben und die Schriften J. F. Herbart's, nebst einer Zusammenstellung der Litteratur seiner Schule*, in the *Zeitschr. für exacte Philosophie*, etc., ed. by Allihn and Ziller, Vol. I., No. 1, Leipsic, 1860, pp. 44 seq. With reference to Herbart's philosophical stand-point and some of his doctrines, numerous critical observations will be found in various writings and essays by Beneke, Trendelenburg, Chalybäus, Ulrici, Franz Hoffmann, Lotze, Lange, and other philosophers to be mentioned below (§ 134); more recently have appeared, among other relevant works, the following: P. J. H. Leander, *Ueber H.'s philosoph. Standpunkt*, Lund, 1865; K. Fr. W. L. Schultze, *H.'s Stellung zu Kant, entwickelt an den Hauptbegriffen ihrer Philosophie* (Göttingen Inaugural Dissert.), Luckau, 1866; Herm. Langenbeck, *Die theoretische Philosophie Herbart's und seiner Schule und die darauf bezügliche Kritik*, Berlin, 1867; Wilh. Schacht, *Kritische philosophische Aufsätze, 1. Heft: Herbart und Trendelenburg*, Aarau, 1868 (cf., *per contra*, J. Bergmann, in the *Philos. Monatshefte*, Vol. I., 1868, pp. 237–242); E. F. Wyneken, *Das Naturgesetz der Seele*, Hanover, 1869.—*Herbartsche Reliquien*, suppl. to H.'s works, Lps., 1871, with biographical notices. Zacharias, *Metaph. Differenzen zw. H. und. Kant.* Lpz. '69. Quäbicker, *Kant. u. H. über d. Wesen d. Seele.* Berl. 1870.

Johann Friedrich Herbart was born at Oldenburg, where his father was a councillor of justice, May 4, 1776. He received his first training through private instruction and at the Gymnasium in his native city. He became early acquainted with the Wolffian philosophy and also with Kantian doctrines. In the year 1794 he entered the University at Jena where Fichte was just developing the doctrine of his *Science of Knowledge*. Herbart was greatly stimulated to philosophical thought by his teacher, and laid before him, in writing, various doubts with reference to particular propositions in the *Science of*

Knowledge; he also handed him a critique of the two first works of Schelling, the one on the *Possibility of any Form of Philosophy*, and the other on the *Ego or the Unconditioned in human Knowledge*. Herbart arrived at the conviction that the important thing in philosophy was not, "to proceed further, there, where a philosopher, who had attained to great reputation, had ceased to build," but "to look to the foundations and to subject them to the most incisive criticism, in order to see whether they were really fitted to support an edifice of knowledge." Herbart's efforts after exactness in his investigations were aided by the stimulus which he received from Fichte. The course of his reflections was early directed toward the conception of the Ego. In an essay composed in the year 1794 he expresses the opinion that the act of self-consciousness involves an "infinite circle," since in this act I posit myself as the one who is conscious of himself, *i. e.*, is conscious of the one who is conscious, etc., but that this infinitude is exhausted when the Ego thinks the problem itself, or all infinitude, in one conception, and that, therefore, in the conception of the Ego infinitude is included as a postulate. But the germs of Herbart's subsequent solution of the problem of the Ego and of his subsequent "Realism" in general were already contained in his critique (1796) of Schelling's work on the Ego. In this critique he supplements the dichotomous disjunction of Schelling: "Either knowledge without reality, or an ultimate point of reality," by adding as a third alternative: "Or as manifold a reality in knowledge, as knowledge itself is manifold;" he insists, further, upon the possibility of many grounds for a single consequence, like several points of suspension for one chain, and lays down the principle: "Whatever is conditioned must have two conditions." In the years 1797–1800 Herbart was a family-tutor in the Bernese family Von Steiger, at Interlaken. Since he believed poetry and mathematics to furnish the most effective means of culture, he occupied his three pupils at first chiefly with these topics (beginning in Greek with Homer) and postponed morals and history till a later period, when, as he believed, they could be better understood; but, to his great grief, his plan was interfered with through the unexpected and premature withdrawal of the eldest of his pupils from his instruction. During this time Herbart busied himself earnestly with morals and psychology. Through a visit to Pestalozzi he became acquainted with Pestalozzi's method of instruction, in which he ever retained a lively interest, and many principles of which he adopted into his own pedagogical theory. In the year 1800 Herbart returned by way of Jena and Göttingen to his native land. He remained till 1802 in Bremen in the house of his friend Johann Smidt, engaged with philosophical and pedagogical studies. In October, 1802, he qualified at Göttingen as a *Docent* of philosophy and pedagogical theory. In the year 1805 he received at the same place a position as Professor *extraordinarius*, but in 1809, through the agency of Wilhelm von Humboldt, was called as Professor *ordinarius* of philosophy and pedagogic theory to Königsberg, after the departure of Krug, Kant's successor in the philosophical chair, for Leipsic. Herbart also directed at Königsberg a Pedagogical Seminary, founded by himself. In the year 1833 he accepted a call to Göttingen, where, not being inclined to participate actively in the political movements of the day, he devoted himself all the more energetically and with unbroken activity to his mission as an investigator and teacher until his death, which took place August 14, 1841.

Herbart defines philosophy (in the second chapter of the first section of his *Introduction to Philosophy*) as the elaboration of conceptions. This is a critical adaptation of Kant's definition of philosophical knowledge as rational knowledge through conceptions. By the use of the word *rational* in his definition Kant introduces into it, as Herbart argues, a subject of possible controversy, since the conception of reason is an

extremely vague one, and since, further, the reason no more exists as a special faculty of the soul than does either of the other faculties enumerated in the psychology of Aristotle and of his imitators. Eliminating, therefore, this qualification, we have left, from Kant's definition: Knowledge through conceptions. But such knowledge is an acquired result of existing science; philosophy, on the contrary, as that which produces science, is simply the elaboration of conceptions. In reply to the objection that this definition is too broad, since all sciences elaborate conceptions, Herbart observes that philosophy is really contained in all sciences, when these are what they should be.*

From the principal species of elaboration of conceptions, says Herbart, follow the principal divisions of philosophy. The first object to be aimed at is clearness and distinctness in conceptions. Clearness consists in the distinguishing of one conception from other conceptions, and distinctness in the distinguishing of the marks of a (compound, not simple) conception from each other. Distinct conceptions may assume the form of judgments; from the combination of judgments arise syllogisms. Of these subjects Logic treats. Herbart defines logic as that division of philosophy which treats in general of distinctness in conceptions and of the co-ordination of conceptions as resulting from such distinctness. But since, from our apprehension of the world and of ourselves, there result numerous conceptions, which, the more distinct they are made, do so much the more conflict with the harmonious combination of our ideas, there arises for philosophy the important problem of the completion and modification of these conceptions in such manner that this logical difficulty shall disappear; this correction of conceptions is the business of general metaphysics, which, in psychology, the philosophy of nature, and natural theology, is specially applied to the three principal subjects of human knowledge. But there are also conceptions which do not call for revision, but occasion an increment of consciousness in the form of a judgment expressing assent or dissent. The science of such conceptions is Æsthetics.†

In his conception and treatment of logic, Herbart indicates to that extent his agreement with the Kantians, that for the more extended study of logical doctrines—since he himself only sketches the outlines of logic—he refers to the logical text-books of such Kantians as Hoffbauer, Krug, and Fries. According to Aristotle, logic is the analysis of thought in general, the separation of thought into form and content. But according to Kant, and also according to Herbart, it is a doctrine of analytic thought, of thought which through analysis elucidates or renders distinct the conceptions employed in thought. Kant's division of knowledge into synthetic and analytic determined not only the distinction between logic and the critique of the reason in Kant's system, but also that between logic and metaphysics in the system of Herbart. Our thoughts, says Herbart, are conceptions, in so far as we consider them with reference to that which is

* The elaboration of conceptions is certainly not the only methodic means employed by philosophy; the most that can be said of it is perhaps that it is the most characteristic means so employed. The founding of the definition of philosophy on the method employed in it is only justified on condition that—as, indeed, Herbart attempts to prove—philosophy has really no definite object, such as the universe as such, or even such as the real principles of all that exists, by which it is distinguished from the other sciences, that relate to special departments of existence.

† This is an unequal division, in that it assigns to logic the work, not of rendering all or even special conceptions distinct, but of prescribing the rules by which all conceptions are to be rendered distinct, and that this work then gives occasion to the logician not simply to render distinct, but to develop independently and scientifically a definite class of conceptions, namely, the logical conceptions, or the conception of the conception, the conception of the judgment, etc.; while metaphysics, on the other hand, itself undertakes to correct certain conceptions and then applies them, and æsthetics, finally, seeks to reduce the formation of judgments of (æsthetic or moral) assent and dissent—judgments which are formed by the human consciousness before the existence of æsthetics, and which directly accompany objective perception—to principles.

thought through them. Conceptions such as those of the circle and the square, which cannot be united with each other, but of which each can be thought independently of the other, furnish examples of contrary opposition. Conceptions which are simply different, but not incapable of combination, such as the circle and red color, are disparate. Disparate as well as contrary conceptions furnish also illustrations of the contradictory opposition between a and non-a, b and non-b, it being affirmed of a and b that each is not the other. Opposites are not one and the same thing; this formula is called the Principle of Contradiction. Equivalent to this is the so-called Principle of Identity: A = A, or properly: A is not equal to non-A, where the negatives neutralize each other and are tantamount to an affirmative, and the same is true of the so-called principle of Excluded Middle: A is either B or not B. Wherever it is permitted to assume a unity in the form of a sum, this sum may include various marks or attributes, as: this garment is red and blue, this event is at once joyful and sorrowful. When conceptions are confronted with each other in thought, the question arises whether they will enter into a union or not; the decision of this question is expressed in a Judgment. The initial or presupposed conception is the subject, and the conception which is connected to it is the predicate. Herbart assumes that the categorical judgment (*e. g.*, God is almighty, the soul is immortal, Goethe was a German poet) does not involve the assertion of the existence of the subject, and proceeds in his doctrine of the syllogism on the basis of this assumption.* Herbart terms the syllogisms of the first and second figures syllogisms of subsumption, and those of the third figure, syllogisms of substitution.

Skepticism, with Herbart, prepares the way for the enunciation of the problems of metaphysics. Every competent beginner in philosophy, says Herbart, is a skeptic, and, on the other hand, every skeptic is a beginner in philosophy. He who has not been at some time in his life a skeptic has never experienced that radical shaking of all his early and habitual ideas and opinions, which alone can enable him to separate the accidental from the necessary, the increment furnished by thought from the bare reality given in fact. But he who persists in skepticism shows that his thoughts have not come to maturity; he does not know where each thought belongs and how much follows from each; oppressed by the weight of others' thoughts, and by the conflict among them, they almost always become skeptics who have been industrious readers and lazy thinkers. Herbart discriminates between a lower and a higher form of skepticism. The former rests on the consideration that, owing to the dependence of our powers of apprehension on subjective conditions, we can scarcely expect to obtain through the senses a true representation of the real being of things. Bodies may have some sort of shape in space, may be subject to some sort of changes in time, the material elements may be seized and controlled by forces, men and animals may be filled with perceptions and sentiments of some sort; but we know not what perceptions and sentiments, what forces, elements, changes, and shapes do actually exist or take place. But doubt may press still farther on, and advance to the idea that in reality we do not at all perceive all that which we think we perceive, but that we involuntarily add in thought to the given contents of perception the forms—especially of space, time, and causality, as also of adaptation—which we ascribe to the objects of nature. Hence it becomes doubtful whether fixed points are anywhere to be found from which knowledge may set out, and it may appear equally doubtful whether, in case such principles actually exist, we can discover the methods necessary for a further progress of thought, since experience appears incomplete, the inference by analogy uncertain, and the existence

* This assumption, at least in the case of affirmative judgments in general, is false; the cases in which it is true are specially marked by the context of the discourse in which they occur.

of any just ground for a synthesis *à priori*—by which a principle would transcend itself—scarcely conceivable.

Herbart holds that while, owing to the relativity of all attributes, no knowledge of the real quality of things is attainable through the senses, yet the forms of experience are really given us, since in the apprehension of a definite object we feel ourselves compelled to connect the contents of perception with a definite form, and are not able—as we should be if we simply added to things forms derived from our own subjective consciousness—to connect any given object of sensuous perception with any form which we may choose. In what manner these forms are given, is a later, psychological problem; but on the fact of their being given, metaphysics depends.

The actual or given forms of experience are of such nature, that they give rise to contradictory conceptions, which it is the business of thought to rectify.

Extension in space and action in time involve contradictions. Extension implies prolongation through numerous different and distinct parts of space; but by such prolongation the one is broken up into the many, while yet the one is to be considered as identical with the many. When we conceive of matter, we begin a division which must be continued *in infinitum*, because each part must still be considered as extended. We never arrive at all the parts, nor at the ultimate parts, since, in order to do so, we should be obliged to overleap the infinite series of intervening divisions. If we begin with the simple and from it attempt in thought to compound matter in the form in which, as composed of simple elements, it may actually exist, the question arises how many simples we must take in order with them to fill a finite space. Evidently we should here be obliged to overleap, but in the reverse direction, the same infinite series which arrested us before. If we attempt by successive divisions and subdivisions to arrive at the ultimate parts of matter, reality becomes lost in the infinitesimal; if from these ultimate parts we would attempt to reconstruct matter, we are unable to employ the infinitesimal as basis of reality. The empirical conception of matter must therefore be altered in thought. Similar considerations arise in connection with the notion of the infinite divisibility of time. The occupancy of time by action and duration demands still more obviously than does the occupancy of space the infinite divisibility of that which occupies; for unoccupied intervals of time would imply the annihilation and subsequent re-entrance into existence of that which acts and endures. All action occupies time: it is as if extended in time. The result of action appears as a finite quantum of change. This finite quantum must contain in itself the infinite multitude of changes which took place successively in the infinitesimal portions of time. The real action, of whose parts the result is composed, is as inconceivable as are the simple parts of the extended in space, for, however small we may conceive its parts, each is still resolvable into a before and after, and an interval between them.

The conception of inherence, or of a thing with several attributes, involves a contradiction, since it implies that one is many. Plurality of attributes is irreconcilable with unity of subject. The thing is supposed to be the one possessor of different marks. But such possession must necessarily be regarded as something belonging and peculiar to the nature of the thing, as entering into the essential definition of the thing, and consequently as being itself no less manifold than are the attributes possessed. Thus the thing itself is rendered manifold, while yet it is by hypothesis only one. The question: what is the thing? demands a simple answer. The conception of a thing whose true quality is a manifold possession of attributes is a contradictory conception, which awaits rectification in thought, since, as originating in what is experimentally given, it cannot be rejected.

The conception of causality, too, which, although not a direct, experimental conception, yet arises from a necessary process of thought with reference to what is given in experience, involves contradictions. With experience the conception of change forces itself directly into consciousness. Now, even in common, unphilosophical thought, the necessity becomes felt of explaining why change has taken place, *i. e.*, of apprehending change as effect and of seeking for it a cause. But the conception of change conducts to a trilemma. Either, namely, the change must have an external cause, or an internal cause, or it must be causeless; or, in other words, it must be the result of a mechanical process, or of self-determination, or of an absolute generation. The common understanding is accustomed to regard each alternative as really occurring, the first in the material world, the second in the region of the will, and the third often (under the name of fate) in the general course of things. But (1) the conception of an external cause does not explain the original change, since it appears to lead to a *regressus in infinitum*, nor does it explain subsequent or derived changes, since it implies the contradiction that the agent possesses, as an attribute of its nature, a qualification which is foreign to, not naturally included in, its nature, and that the patient, after the change wrought in it, remains and yet cannot remain the same thing which it was before; (2) the conception of self-determination through an internal cause does not diminish these difficulties, and involves the further contradiction that it divides the one agent in the act of self-determination into two opposed parts, an active and a passive part; (3) the theory of absolute generation, which regards change as itself constituting the quality of that which changes, is exposed to the twofold objection, that it would require a strict uniformity in change, such as our experience of the nature of things does not disclose, and that it is also contradictory in itself, since the conception of generation is impossible in thought, except as involving the passage of the subject of generation through a series of changing qualities; whence, in order to determine the quality of the generation, these various opposed qualities must be united and concentrated into a unity, or, in other words, opposed qualities must be one—which is contradictory; if it is said that generation is only the manifestation of a substratum which does not change, the contradictions are not diminished, but increased, since this theory expresses only the more clearly the idea of the one unchanging substratum as having concentrated in it all multiplicity and all contradiction, as the source from which the plurality and the opposed qualities of the outward manifestation shall be evolved.

The conception of an Ego, in so far as the Ego is regarded as the primary source of all of our extremely manifold ideas, involves the contradiction of the inherence of the multiple in the single, which contradiction becomes here especially sensible, for the reason that self-consciousness appears to represent the Ego as a perfect unit. To this must be added the contradiction peculiar to the Ego, that it must think itself as pure self-consciousness, consciousness turned in upon itself, *i. e.*, must think its own Ego, *i. e.*, must think its own thinking of itself, and so on *in infinitum* ("its Ego" always taking the place of "itself," "its thinking of itself," of "its Ego," and so on), so that the conception of an Ego seems in reality impossible to be realized.

It is the business of Metaphysics, according to Herbart, to remove these contradictions from the forms of experience, and thus to render experience comprehensible. Metaphysics is divided by Herbart into the doctrine of principles and methods (Methodology), of being, inherence, and change (Ontology), of the constant (Synechology), and of phenomena (Eidology). With general metaphysics are connected, as its applications, physical philosophy and psychology.

The transformation of conceptions, which it is the work of metaphysics to accomplish, is effected by seeking out the necessary complementary conceptions, or points of relation, through which alone the contradictions contained in the given conceptions can be resolved. This method of removing the contradictions which are involved in the formal conceptions furnished by experience is termed by Herbart the method of Relations. Every such formal conception is a principle, from which we are obliged, by the contradiction contained in it, to conclude to the complementary. It is only thus, *i. e.*, it is only on the basis of a contradiction contained in an idea, that *à priori* synthesis becomes possible. For suppose that B is shown by an *à priori* synthesis, hence necessarily, to belong with A; then A must be impossible without B; the necessity lies in the impossibility of the contrary; but such impossibility or, in general, the impossibility of any supposition or idea is contradiction. (Kant, on the contrary, had asserted that *à priori* synthetic propositions demanded another principle beside the principle of identity and contradiction.)

It is impossible to assume that nothing is, for then nothing would even appear to be. Even if all being be denied, there remains at least the undeniable, simple element of sensation. That which remains after the removal of being is appearance. This appearance, as appearance, *is*. Since this fact of appearance cannot be denied, some form of being must be assumed as real.

The affirmation that A *is*, is nothing more than the simple positing of A. Being is absolute position.* The conception of being excludes all negation and all relation.† Whatever is conceived as being is called an essence (*ens*).

The simple element of sensation is never, or extremely seldom, found single; it occurs rather in complexes which we term *things*. We ascribe to things their separate marks as attributes. But the contradictions contained in the conception of a thing with several attributes force us, in order to free the conception from these contradictions, to complete the conception by the assumption of the existence of a plurality of real essences, each possessing an absolutely simple quality, which can therefore not be defined by the statement of internal distinctions existing within the quality, and by the further assumption that the appearance of a thing as one and as yet possessing several attributes results from the existence of these simple essences in combination or *together*.

In a complex of marks there are ordinarily some which are permanent, while others change. We therefore ascribe changes to things. But from the contradictions in the conception of change it follows that there is no original, internal change in what possesses being, since original self-determination and absolute generation are impossible; and it follows, further, that there would be no derivative change if the operation of causes were only possible upon the condition of an original, outwardly directed activity. But then there would be no change at all, not even in the sphere of appearance, and this would contradict experience. Hence no such condition as that alluded to can exist, and it must be possible to explain change without the supposition of an original, outwardly directed activity, as also without the supposition of an original internal activity. Herbart explains change by means of the theory of self-preservations (acts of self-preservation), which take place when a number of simple, real essences are together, and which constitute the substance of all real change. This theory rests on the coadjutant conception of intelligible space, together with corresponding species of

* Herbart thus includes the positing of being in the conception of being.

† Herbart's exclusion of *all* negation and relation involves a *saltus in demonstrando*. All that is to be excluded is the relation to the positing subject and the cancelling (negation) of the position in the sense in which the latter was affirmed.

time and of motion, and on the methodic expedient of the "accidental view." By intelligible space Herbart understands that space in which the simple real essences must be conceived as existing, in distinction from the phenomenal space, in which our sensations are ideally represented, and which is therefore in the soul itself. The formation of the conception of intelligible space is occasioned by the necessity of conceiving the same essences as together and also as not together. The succession of simple, real essences produces the "rigid line," the passage of points into each other the continuous line, the compounding of two directions the plane surface, and the addition of a third direction material space. The fiction of the passage of points into each other presupposes the divisibility of the point, an hypothesis which Herbart seeks to justify by the geometrical fact of irrational relations. In intelligible as in phenomenal space all motions are relative: that which is motion with reference to surrounding objects which are viewed as at rest, is rest when these objects are viewed as moving with equal rapidity in an opposite direction. Every existence in intelligible space is primarily at rest with reference to itself, or with reference to space, if it is regarded as itself existing in space. But there is nothing to prevent this rest from being motion with reference to other real essences; rest in this latter regard would be only one possible case among an infinite number of equally possible cases. It is therefore to be presupposed that in general every being is originally in motion, as compared with every other one, and that this motion is motion in a direct line with constant velocity. This motion is not real change, since every being (essence) with reference to itself and to *its* space remains at rest, and does not of itself stand in relation to other beings, but is only regarded as in such relation by a consciousness in which all or several of them are comprehended. When, however, the case occurs that in consequence of this original motion simple, real essences arrive at the same time at the same point, there follows a reciprocal interpenetration on their part, which, so far as their qualities are alike, occasions no disturbance, but which, when the qualities are opposed, would naturally occasion a disturbance, since, by the theorem of contradiction, opposites cannot co-exist in one point. The disturbance would take place if the opposite qualities of the various essences could destroy each other. But since the reverse is the case, the qualities are enabled to preserve themselves against the threatened disturbance; self-preservation is persistence in opposition to a negation. The disturbance resembles a pressure, and the self-preservation a resistance. "Self-preservations" in the soul are representations or ideas; in all other real beings they are internal states, which, according to Herbartian as well as according to Leibnitzian principles, must be conceived as in some way analogous to our ideas. The proper and simple essence of real beings is unknown to us; but concerning their internal and external relations it is possible for us to acquire a sum of knowledge, which may be enlarged *in infinitum*. It is necessary to suppose that the simple essence of the real beings is not only different in the case of different ones, but that this difference may amount to contrariety. If the difference of quality, however, is but partial, the qualities may be analyzed in thought into component elements, between which, on the one hand, complete agreement and, on other hand, complete opposition subsists; such analysis, although methodically necessary for the comprehension of the result, is yet with reference to the qualities themselves only an "accidental view" of the case, since the qualities are not really the product of such component elements, but are simple and indivisible, and are analyzed only in our consideration of them.

In human consciousness the fact of an Ego is given, and yet the conception of an Ego is loaded with contradictions. These contradictions force us to distinguish between

"apperceived" and "apperceiving" masses of ideas in self-consciousness, and this distinction again presupposes the doctrines of the soul as a simple, real being and the substratum of the whole complex of our ideas, of ideas as psychical acts of self-preservation, and of the reciprocal relations of ideas.

On the divisibility of the point rests the possibility that a number of simple, real beings (which must, however, in view of the assumed divisibility, be conceived as spherical) should be at least imperfectly *together*, or should partially interpenetrate each other. The result of such partial interpenetration is Matter. A necessary result of the same is also the attraction of elements. For the act of self-preservation cannot be confined to that part of each of these real beings which is penetrated; in the whole being, in all its supposed parts, this act takes place with the same degree of energy, for the very reason that the being is really simple and its parts are only supposed. But with the inward state of the act of self-preservation as a whole, the external position of the simple beings must necessarily correspond. From the necessity that the internal state should be accompanied by an appropriate external state it follows that the partial interpenetration must give place to a condition in which each being is fully in the other. If the elements of each sphere (point, real being) be conceived as themselves also spheres, and if the infinitesimal amount of time occupied by the act of penetration be again subdivided into infinitesimals of the second order, each of the original spheres will at every instant be to the part not yet penetrated as the initial attraction to the acceleration at the given instant. In the case of the union of several simple, real beings, repulsion, or the necessity that some of them should give place to the others, enters in; or repulsion takes place when the measure in which the internal state of a being surrounded by others enables it to respond to the influences of the latter has been exceeded. Attraction and repulsion are therefore not original forces, but necessary external consequences of the internal states, into which several different substances mutually throw each other.

When the equilibrium between attraction and repulsion is restored, the combination of simple, real beings forms a material element or an Atom.

In order to explain genetically the special phenomena and laws of physics, by tracing them to their ultimate sources, Herbart distinguishes, on the one hand, between strong and weak opposition of elements (according to the amount of the difference of their qualities) and, on the other, between equal and unequal opposition (according to the mutual relation of these qualities in point of intensity). From the combination of the two distinctions result four principal relations of elements to each other:

1. Strong and equal or nearly equal opposition; on this depends the formation of solid or rigid matter, and in particular the cohesion, elasticity, and configuration of matter;

2. Strong, but very unequal opposition; this is the relation in which the elements of caloric (the existence of which substance is postulated by Herbart in order to account for the phenomena of heat) stand to the elements of solid bodies;

3. Weak and not very unequal opposition; this is the relation in which electricity stands to the elements of solid bodies;

4. Weak and very unequal opposition; this is the relation in which the ether or the medium of light and gravity stands to the elements of solid bodies.

Biology (or Physiology) rests, with Herbart, on the theory of the internal figurability of matter. Several internal states within one being tend mutually to arrest each other (as in the soul is the case with ideas which limit each other in consciousness); the arrested states, under favorable conditions, reappear and co-operate in determining the

outward action. The simple being excites in other similar beings, which come in contact with it, states similar to its own; on such excitation depend the processes of assimilation and reproduction. Further, irritability and sensibility follow from the internal figurability of matter.

The accidental meeting of simple, real beings is sufficient only to account for the general possibility of organic life. But the adaptation apparent in the formation of the higher organisms presupposes the influence of a divine intelligence as the cause, not indeed of the existence of the simple real beings themselves, but of their actual relations to each other (and hence of what in common phraseology is understood by substances). But this teleological justification of the belief in God's existence satisfies the religious need of man only in so far as man is a being capable of addressing God in prayer, or at least of finding rest in the thought of God, whence the reception of the ethical predicates into the idea of God (of which below).

The soul is a simple, real essence; for if it were a complex of several real essences its ideas would lie outside each other, and it would not be possible for several ideas to be combined in the unity of thought, nor for the whole sum of my ideas to be combined in the unity of my consciousness.* The soul's acts of self-preservation are ideas. Ideas, whether homogeneous or disparate, blend with each other; but such of them as are partially or totally opposed to each other arrest each other according to the degree of their opposition. Through this arrest of ideas the intensity in which they exist in consciousness is diminished, and may be reduced to zero. In the case of an arrested idea, the mind, instead of consciously having the idea, seeks to have it. The relations of ideas in point of intensity may be mathematically computed, although their separate intensities cannot be measured; by such computation the laws of the succession of ideas are reduced to their exact expression. This computation is Static, when it relates to the final condition in which ideas may persist, and Mechanic, when its object is to ascertain the actual strength of an idea at any definite moment during its change.

Suppose two synchronous ideas, A and B, whose intensities are exactly equal, so that each may be represented as $= 1$. Suppose, further, that these ideas are completely opposed (as, for example, red and yellow, yellow and blue, any given tone and the tone one octave higher), so that if the one is to subsist unchecked the other must be totally arrested. Since (according to the principle of contradiction) opposites cannot subsist together at the same time and at the same point, one of the two supposed ideas must, it would appear, wholly give place to the other. And yet each continues to subsist, for whatever once subsists cannot be annihilated. Both ideas strive with equal force against each other. Each therefore loses the half of its original intensity. The law of contradiction would be satisfied if one of the ideas were completely arrested; but, as matter of fact, so much of the two ideas, taken together, is arrested as the original intensity of each idea amounted to. The total arrest of ideas thus divided between the two is termed by Herbart the sum of arrest. If the opposition between the ideas is not complete, so that it is not represented by 1, but by a proper fraction, this fraction enters as a determining element into the computation of the sum of arrest.

If the ideas A and B are unequal in strength, the intensity of the first being $= a$, of the second $= b$, and $a > b$, and if A and B are complete opposites, it is sufficient,

* The real ground of the unity of consciousness is not the punctual nature of the soul, but the fact that within the space occupied by consciousness our ideas interpenetrate each other, or become fused into one whole.

according to Herbart's theory, that the two ideas together should suffer an amount of arrest equal to the intensity (b) of the weaker idea, for if the latter were wholly destroyed there would be no more "contradiction."* The "sum of arrest," then, is now $= b$. Each idea strives with all its intensity against arrest. It suffers, therefore, the less arrest the stronger it is. Of the whole sum of arrest, which is $= b$, A therefore suffers an amount represented by $\frac{b^2}{a+b}$, and B an amount represented by $\frac{ab}{a+b}$, so that A remains in consciousness with a force equal to $a - \frac{b^2}{a+b} = \frac{a^2+ab-b^2}{a+b}$, and B with an intensity equal to $b - \frac{ab}{a+b} = \frac{b^2}{a+b}$.

If three ideas, whose intensities are a, b, c, are synchronous, with complete opposition between them, and if we have $a > b$, and $b > c$, the sum of arrest, according to Herbart, will be $= b + c$, or, in general, will be equal to the sum of all the weaker ideas, whatever their number; for if these were all fully arrested, the strongest would be able to assert itself in its full force. The sum of arrest here again is distributed in a manner inversely proportioned to the intensities. It is possible, however, that the amount of arrest falling to the weakest idea should equal or even be superior to the intensity of that idea, in which case the idea will be wholly forced out of consciousness; but it can, under favoring circumstances, enter again into consciousness. The limit at which the intensity of an idea is exactly equal to 0 is termed by Herbart the threshold of consciousness, in which figure, however, the notion of the (horizontal) motion over a threshold is mixed up with the notion of a (vertical) rise and descent. That value of an idea which consists with the depression of the latter exactly to a level with the "threshold" of consciousness is termed by Herbart its "threshold value." If $a = 1$ and $b = 2$, the "threshold value" of $c = \sqrt{\frac{1}{2}} = 0{,}707\ldots$

If the susceptibility of the mind for an idea—the excitation (reckoned here, for the sake of simplicity, as $= 1$) remaining constant— is originally $= a$, it is, after the idea has reached the intensity denoted by x, only $= a - x$. The rapidity with which the idea increases in intensity, or the "rate of its increase," is at every instant proportional to the degree of susceptibility. It becomes, therefore, constantly less. We consider as the unit of time ($t = 1$) that time in which the idea would rise to the full force represented by a, if the initial rate of increase remained unchanged. In a very small portion of time $\left(= \frac{t}{n}\right)$ at the beginning, this rate of increase remains nearly unchanged, and in the first infinitesimal portion of time ($= dt$) it must be considered as unchanged (constant). In the first division of time represented by $\frac{t}{n}$, therefore, the idea attains nearly to the force represented by $a \cdot \frac{t}{n}$, and in the first portion of time represented by dt, its force becomes $a \cdot dt$. If at a later instant, at the expiration of any specified time ($= t$), the idea has increased to the force represented by x (when, therefore, the susceptibility will be measured, not by a, but only by $a - x$) the idea

* Of course the "contradiction," if indeed any exists in the supposed case, would only then be removed when B itself or, also, when A itself should be totally arrested, but not when only a quantum of intensity $= b$ and divided between the two ideas should be arrested. That the nullification or "arrest" of an idea is already accomplished when it has become an unconscious one (although continuing to exist in such unconscious state), is an assumption which experience forces upon us, but which is scarcely compatible with Herbart's logico-metaphysical principle.

must increase in force, in a very small portion of time $\left(=\frac{t}{n}\right)$, not to an amount nearly $= a.\frac{t}{n}$, but to an amount nearly $= (a-x).\frac{t}{n}$, and in an infinitesimal portion of time ($= dt$), not to an amount $= a.\,dt$, but to an amount $= (a-x)\,dt$. If, now, we employ dx to denote the increase in force, which the idea, after it had increased to x, acquired in an infinitesimal portion of time (or the difference between its force before and after this infinitesimal portion of time), this dx, according to the above, is $= (a-x)\,dt$, and therefore $\frac{dx}{a-x} = dt$; from this equation, when we consider the circumstance that the idea has arisen from a value $= o$ and that consequently for $t = o$ $x = o$, we obtain the result: $x = a\left(1 - e^{-t}\right)$, e denoting, as usual, the basis of natural logarithms.—If the excitation is assumed as constant, yet not $= 1$, but $= \beta$, the intensity, to which the idea rises in the first portion of time (dt), is (instead of $a.\,dt$, as above) $= \beta a.\,dt$; consequently, in the portion of time ($= dt$) which follows immediately after the end of the time t, in which the idea has increased in force to x, the force of the idea must increase to an amount represented by $\beta\,(a-x)\,dt$, that is, $dx = \beta\,(a-x)\,dt$, whence follows the equation: $x = a\left(1 - e^{-\beta t}\right)$. It thus appears that, while the idea acquires tolerably soon nearly its full force ($= a$), it nevertheless will never fully acquire it in a finite time, but will only approximate towards it as the limb of the hyperbola approximates toward its asymptote.*

In an altogether analogous manner Herbart calculates the gradual decrease of the "sum of arrest."

When with one idea several others are combined—not perfectly, but according to a certain descending gradation through larger and smaller parts—if that idea recovers from the effects of its previous arrest and returns into consciousness, it will tend to raise the others into consciousness with itself, not, however, uniformly, but in a definite order and sequence. Herbart seeks to determine this sequence by mathematical formulæ. It is, according to him, the varying degrees in which ideas blend together, upon which rests, not only the mechanism of what is called memory but also from which arise the forms of space and time in human thought; and these forms are not viewed by Herbart, with Kant, as *à priori* forms, but as results of the psychical mechanism.

In that simple being which is the soul there is no more an original multiplicity of faculties than of ideas. The so-called faculties of the soul are simply hypostatized class-conceptions of psychical phenomena. The explanation of these phenomena by reference to the so-called faculties is illusory; the real causes of psychical processes are to be found in the relations of ideas to each other. Recollection follows the laws of reproduction. The Understanding, which may be nominally defined as the faculty for combining our thoughts according to the nature of that which is thought, has for its basis the complete effect of those series of ideas which are formed in our souls through the influence of external things upon us. By the Reason is to be understood the faculty for weighing arguments and counter-arguments; its basis is the coincident operation of several complete series of ideas. The so-called Internal Sense is the apperception of newly-formed ideas through earlier but similar masses of ideas. The

* The necessary consequence implied in the formula, viz.: that the weakness of the excitation may be completely made good in the result by its longer duration, seems to be in contradiction with our experience.

Feelings arise when different forces work in the same or in opposite senses on the same idea. The Will is effort accompanied by the idea of the attainability of the object of effort. Freedom of the Will, in psychology, is the assured supremacy of the strongest masses of ideas over single affections or impressions. Kant's doctrine of "transcendental freedom" is false, and is also in conflict with the practical interest of man, since it renders the development of character impossible.

The source of our æsthetic Ideas is to be found in our involuntary judgments of taste, and, in particular, the source of our Ethical Ideas is found in such judgments of taste respecting relations of will. The Idea of Internal Freedom is founded on the satisfaction arising from harmony between the will and our judgment respecting the will. In the case of pure relations of magnitude, the greater always pleases beside the smaller; this is the origin of the Idea of Perfection. Those conceptions of magnitude, which are employed in the comparison of acts of will, are: intension, extension (*i. e.*, multiplicity of objects willed), and concentration of manifold volitions to a joint or total effect, or intension as arising anew out of extension. The objective correlate to the Idea of Benevolence is harmony between our own will and the presupposed will of another. The Idea of Legal Right is founded on our displeasure at strife; legal right is the rule established or recognized by the parties interested, for the avoidance of strife. When, through the intentional action of one will upon another or through intentional well-doing or ill-doing the condition, in which the wills of the parties concerned would otherwise have remained, is broken off or violently disturbed, the act produces dissatisfaction; from this dissatisfaction arises the Idea of Retribution or Compensation (Equity), or of a rectification of the disturbance by the transfer of an equal amount of good or the reverse from the receiver to the doer. With these primary or original Ideas are connected the derived ethical Ideas relating to society, in particular the Idea of the legal society, of the system of rewards, of the system of administration, of the system of culture, and of society as a person, which are founded respectively on the Ideas of legal right, compensation, the public welfare, spiritual perfection, and inward freedom. Nothing but the union and mild guidance of all Ideas can give to life a satisfying direction.

The basis of religious faith is to be found, according to Herbart, in the contemplation of nature, but the perfecting of faith is the work of ethics. The adaptation apparent in the higher organisms cannot be referred to chance, nor can its existence in nature be denied on the plea that it is simply a form of human thought. The sufficient explanation of it is found only in a divine intelligence, in which the order of the simple, real essences must have its source. A scientific system of natural theology is beyond our reach. More important than the theoretical development of the conception of God is, for the religious consciousness, the qualification of that conception by the ethical predicates of wisdom, holiness, power, love, and justice—predicates which are in part incompatible with pantheism.*

* Whether the contradictions which Herbart regards as existing in the "formal conceptions forced upon us by experience" are really contained in them, is at least doubtful. For the advance of science beyond the sphere of empiricism the stimulus of these contradictions is not needed; such stimulus is found, rather, in the fact that not only the existence of individual objects and things is manifest to us, but also the existence of relations, varieties of worth, ends, and laws, on which the formation of our logical norms, as also of our ethical notions, is founded. Trendelenburg seeks, in an essay on Herbart's Metaphysics (in the *Monatsberichte der Berliner Akademie der Wissenschaften*, Nov., 1853, p. 654 seq.; reprinted in the second volume of Tr.'s *Histor. Beitr. zur Philos.*, Berlin, 1855, pp. 313–351), and in a second article (*Monatsber. der Berl. Akad.*, Feb., 1856, and in Tr.'s *Hist. Beitr. zur Philos.*, Vol. III., 1867, pp. 63–96), in reply to rejoinders by Drobisch and Strümpell (in the *Zeitschr. für Philos. und philos. Kritik*, 1854 and 1855), to demonstrate the three fol

The philosophy of Herbart has signally promoted the genetic comprehension of nature and mind. The doctrine of Beneke may be regarded as an attempt to maintain

lowing theses: (1) the contradictions which Herbart points out in the universal conceptions furnished by experience are not contradictions; (2) if they were contradictions, they would not be solved by Herbart's metaphysics; (3) if they were contradictions and were thus solved, yet others and greater ones would remain unsolved. In considering the subject of continuity, says Trendelenburg, the multiplicity and smallness of parts are not to be isolated from each other; the product of their number and magnitude remains identical. There are no "ultimate" parts. In connection with the problems of inherence and change, variety and contrary opposition are only artificially transformed into contradictory opposition. (Cf. the remarks in my *System of Logic*, § 77, as also the relevant sections in Delbœuf's *Essai de logique scientifique*, Liége, 1865.) The principle of identity and contradiction is not an objective law, determining the nature of things, but a law of thought; to objectify this law and make of it a law of things is to misapprehend it (a misapprehension into which, indeed, so early a philosopher as Parmenides fell). The apparent contradictions in the conception of the Ego are removed by Herbart through the distinction of different groups of representations; but whether the mutual interpenetration of representations presupposes a being of punctual simplicity having its seat at a single spot within the brain, and whether such a being is conceivable as a soul, is at least extremely problematical. (Cf. my *Syst. of Logic*, § 40.) When isolated in thought, unity may appear as simplicity, just as, on the other hand, plurality, when isolated in thought, leads to exclusive atomism; but the facts force us the rather to assume a synthetic unity in things, a unity which is not that of a punctual substratum, nor of a number of such substrata existing externally to each other, but the unity of an harmoniously articulated whole. The point is conceivable only as limit, and it is only in abstraction that it can be conceived as independent; the punctual realities assumed by Herbart are hypostatized abstractions. The fiction of the spherical forms of the real beings, which is invented ostensibly for didactic purposes alone, is really employed illegitimately in Herbart's metaphysics as an element in the further construction of the system of philosophy itself, but only to be afterwards cast aside when it has rendered this service; it is on such alternate use and rejection of this fiction that Herbart's account of intelligible space and of the attraction of the elements is founded. The alleged necessity that external position correspond with internal condition is left without satisfactory explanation. In a *simple* real being no *images* could ever arise, for these, according to the testimony of the internal sense, have extension in space; Herbart's endeavors to point out the conditions under which the notion of space is formed do not disprove the impossibility of any such notion as arising in an absolutely spaceless being. The theory of self-preservations is vitiated by the contradiction that, while according to the theory only the old is preserved, there yet is developed something new, which latter is reputed even to remain after the removal of the disturbance, which, on its part, was really no disturbance. In the supposed case of opposed ideas which cannot subsist together and cannot destroy each other, two necessities are brought into conflict, which in their principles are absolute and admit of no compromise between them. It is not sufficient that a quantum equal to the weaker ideas be arrested; at least the weaker idea should be itself arrested or rather annihilated, and, in case it continues to resist, the conflict, to satisfy the law of contradiction, should be continued until all the ideas in conflict be destroyed. The fact that this is impossible, and that experience shows a different result, proves only the falsity of the hypothesis of beings which are mere points. Alb. Lange (*Die Grundlegung der mathem. Psychol.*, Duisburg, 1865; cf., *per contra*, Cornelius, in the *Zeitschr. für ex. Philos.*, VI., Nos. 3 and 4) censures Herbart for assuming a "sum of arrest" of fixed magnitude as the basis of the computation; the investigator who respects only natural law will seek to determine the result according to the degree in which the ideas tend to limit each other, and according to the measure of their resistance, and will not assume it at the outset as a postulate. In order to explain the phenomena of memory, Herbart indulges in assumptions concerning the magnitude and constancy of the sum of arrest, which interfere with the logical consequences of his principles. With Herbart's metaphysics his theology conflicts in numerous points. The designful order among the simple real beings presupposes reality of relations in intelligible space, which is nevertheless denied by the metaphysics. As a person, God, according to Herbartian principles, must be a simple real essence, which, limited in itself to its simple quality, can only rise to intelligence through an intelligent grouping of the other simple essences with which it is associated; but such grouping, since, as being the explanation of the divine intelligence, it could not be explained by the latter, would be absolutely incomprehensible, and to assume it as an explanation of adaptation in general would be only throwing the explanation further back. Herbart himself confesses that his metaphysics threatens to forsake him when he attempts to apply it to theology (and indeed he censures the attempt so to apply it as an abuse of metaphysics and the result only of a subtilizing curiosity), and he compares the demand for a theoretical knowledge of God to the wish of Semele, who prayed for her own destruction; but he has not the advantage which Kant had of being able to justify his denial of the validity of all attempts to philosophize in theology through a previous (supposed) demonstration of our ignorance as to the manner in which "things in themselves" exist. If the quality of that simple real essence which is God be assumed as infinitely intensive,

and extend the ground won by Herbart, without the defects which have been pointed out, and, in particular, with the overthrow of the fiction of the punctual simplicity of the soul.

§ 133. Friedrich Eduard Beneke (1798–1854), in opposition especially to Hegel's and also to Herbart's speculation, and on the basis of various doctrines held by English and Scotch philosophers, as also of doctrines maintained by Kant, F. H. Jacobi, Fries, Schleiermacher, Schopenhauer, and Herbart, developed a psychologico-philosophical doctrine, resting exclusively on internal experience. The guiding thought with Beneke is, that through self-consciousness we know ourselves psychically just as we really are, but that we are able only imperfectly to know the external world through the senses, and that we only in so far apprehend its true nature as we suppose analoga of our own psychical life to underlie the phenomena of the world of sense. All of the more complicated psychical processes are derived by Beneke from four elementary or fundamental processes, namely, the process of the appropriation of impressions, the process of the formation of new elementary psychical powers or faculties, the process of the compensating adjustment or transfer of impressions ["excitations"] and faculties, and the process of the mutual attraction and blending of homogeneous psychical products; under the third process certain psychical products, having lost a portion of their elements, become unconscious or continue to exist as simple vestiges, while, these lost elements being united to other products, the latter, if they were previously unconscious, are elevated into consciousness, and, if they were already conscious, are elevated into more vivid consciousness. On his reduction of the complicated psychical phenomena to

it is, in the first place, very doubtful whether this infinitude must not in logical consistency be denied by Herbart on the same ground on which he denies that there is an infinite number of real beings; and, in the second place, it is equally and even more questionable whether mere infinitude of intensity can be regarded of itself as a principle of the order in the ideas of God, and whether, therefore, it can render superfluous the hypothesis of a designful grouping of real beings independently of God, and on which grouping the rational order of the ideas in God depends. If it cannot, it is as easy, if not easier, to consider the adaptation in the order of the world as eternal (in which case the existence of God, though still possible, would not be proved), as to imagine a primitive adaptation of things, between which and the present order of the world God occupies an intermediate place. Herbart's ethics and æsthetics in general are not allied to his theoretical philosophy by a common principle. It is extremely questionable whether our judgments of satisfaction and dissatisfaction—which judgments, in the assumed interest of the purity of moral perception, Herbart declares to be absolute and hence independent of the natural differences in worth of the various intellectual functions—can be regarded as the ultimate ground of the beautiful and the moral, and whether, in particular, they can furnish a sufficient explanation of moral obligation. Cf. Trendelenburg, *H.'s praktische Philosophie und die Ethik der Alten*, in the Transactions of the Berlin Acad. of Sciences, 1856, and in Vol. 3 of Tr.'s *Histor. Beitr.*, Berlin, 1867, pp. 122–170; and, *per contra*, Allihn, in the *Zeitschr. f. exacte Philos.*, VI., 1, 1865.

these "fundamental processes" rests Beneke's essential merit. His work will continue to possess a decided value for psychology and all other branches of philosophy, so far as these rest on psychology, although his conception of the nature of these fundamental processes themselves may need to be completely revised. The science of morals is founded by Beneke on the natural varieties or relations of worth which subsist among the various psychical functions and express themselves originally in feelings. That which, conformably to these relations, has the most worth, not only for the individual, but also for all those whom our conduct may influence—so far as this can be measured—is morally good. Moral freedom consists in such a decided preponderance and such a firm establishment of the moral nature in man, that his volition and action are determined by this nature alone. Conscience exists, whenever, in considering our own action, the idea or the feeling of an estimate of conduct which is true for all men enters in alongside of an in any sense different valuation or tendency on our own part. The science of education and instruction rests on psychology and ethics, says Beneke, and for the development of it he labored with enthusiasm and success. His religious philosophy presupposes a strict separation between the provinces of knowledge and of faith.

With reference to the history of Beneke's intellectual development, he himself has expressed himself in *Die neue Psychologie* (Berlin, 1845, 3d essay, p. 76 seq.: "On the Relation of my Psychology to Herbart's"). In the preface to his *Beiträge zur Seelenkrankheitskunde* (1824, p. VII. seq.) he explains his position with reference to certain cases of disagreement between himself and others. In Diesterweg's *Pädag. Jahrbuch* for 1856 is contained a biography of Beneke by Dr. Schmidt, of Berlin, to which Dressler, in the same periodical, adds a supplement. A brief characterization of the writings of Beneke, in the order of their publication, is given by Joh. Gottlieb Dressler in the supplement to the third edition of Beneke's *Lehrbuch der Psychologie*, edited by Dressler, Berlin, 1861 (also printed separately).

Friedrich Eduard Beneke was born in Berlin, on the 17th of February, 1798, and died there March 1, 1854. He received his early education in his native city at the Gymnasium Fridericianum, which was at that time under the direction of Bernhardi. He took part in the military campaign of 1815, and then studied theology and philosophy in Halle and Berlin. He fell specially under the influence of De Wette, who directed his attention to Fries, and of Schleiermacher, to whom he dedicated one of his earliest writings. The private studies of Beneke were directed partly to the more recent English philosophy, and partly to the works of Garve, Platner, Kant, and Friedrich Heinrich Jacobi; the Complete Works of the latter were reviewed by Beneke in the *Hermes*, Vol. XIV., 1822, pp. 255–339. He also early turned his attention to the writings of Schopenhauer, as is shown by his above-cited (§ 131, Lit.) review of them. Not until his first three works (Outlines of the Science of Cognition, Empirical Psychology as the Basis of all Knowledge, and *De veris philosophiæ initiis*, his Doctor's Dissertation) had already appeared (in 1820) did he become acquainted with one of

Herbart's works; that work was the second edition of the Introduction to Philosophy (1821); until then he had possessed only a superficial knowledge (acquired perhaps through Stiedenroth's *Theorie des Wissens*, Göttingen, 1819) of Herbart's views. From this time on he studied the works of Herbart with a very lively interest. Many of them he reviewed. He found in Herbart the most acute and (after Jacobi's death) the most profound of the German philosophers then living. But while Herbart founded his psychology on "experience, mathematics, and metaphysics," Beneke rejected from psychology the metaphysical basis as well as the application of mathematics to it, admitting nothing but what is derived from internal experience, and insisting that the data furnished by such experience should be put to scientific account by following the same method by which the natural sciences interpret the data of external experience. Beneke denies that there are contradictions involved in the conceptions furnished by experience, and that metaphysical speculation is necessary in order by the "method of relations" to remove them. In the theory of the punctual simplicity of the human soul he finds the fundamental error of Herbart's psychology, asserting that it results in a general falsification of the results of internal experience. Beneke approves Herbart's warfare against the recognition of those "faculties of the soul" which are, he says, in reality nothing but hypostatized class-conceptions of psychical phenomena, and yet are put forward in explanation of these same phenomena; but he defends the general idea of faculties, and also the hypothesis of a plurality of psychical faculties. He seeks to reduce the complicated phenomena of psychical life to a few fundamental psychical processes. (These fundamental processes were, for the most part, already mentioned by Beneke in the Empirical Psychology—which appeared in 1820, before his acquaintance with Herbart's works—but rather sporadically than in a complete scientific development; in the origination of his complete system of psychology he was not inconsiderably influenced by Herbart.) In the year 1822, after the publication of Beneke's Groundwork of the Physics (natural history) of Morals, the continuance of his lectures at the University of Berlin was interdicted. Beneke pretended to have discovered that this interdict resulted from the representations made by Hegel to his friend, Minister Von Altenstein, and that Hegel's object was to prevent the propagation and reception at the University of Berlin of any philosophy hostile to his own and akin to the doctrine of Schleiermacher and Fries. By giving to certain illiberal resolutions of the German confederation a somewhat forced interpretation, Von Altenstein, irritated by further steps on the part of Beneke, found means to force the Saxon government, which had designated him for a regular professorship of philosophy, not to appoint to that position a private *Docent* from whom, although politically unsuspected, in Prussia the *Venia legendi* had been withdrawn. Beneke found an asylum in Göttingen, where he lectured as a *Docent* from 1824 until 1827. He then obtained permission to return in the like capacity to Berlin, where, in 1832, not long after Hegel's death, he received the appointment to an irregular professorship. This position he, with unintermitting activity as a lecturer and author, continued to fill until his death.

The following is a list of Beneke's works (apart from the reviews already noticed):

Outlines of the Theory of Knowledge (*Erkenntnisslehre nach dem Bewusstsein der reinen Vernunft in ihren Grundzügen dargelegt*, Jena, 1820). In this work a polemical attitude is assumed toward Kant and Fries. It is held that the "forms" of knowledge, which Kant deemed *à priori*, as well as the material of knowledge, originate in experience.

Outlines of Empirical Psychology as the Basis of all Knowledge (*Erfahrungsseelenlehre als Grundlage alles Wissens in ihren Hauptzügen dargestellt*, Berlin, 1820). Beneke explains that it is by no means his object in this work to expound the complete science of empirical psychology, but simply to show how and

where all forms of human knowledge have their roots in it. With the external excitation to activity, teaches Beneke, corresponds an internal, responsive effort. Every activity is the result of stimulus (excitation) and force. The several fundamental activities presuppose an equal number of originally distinct faculties or "fundamental faculties." From the fundamental activities all others are to be derived, chiefly by means of the principle that "all human activities leave behind in us a certain residuum which is capable of excitation." The revival of them follows partly the law of similarity and partly the order of the previous immediate succession of ideas. To these two subjective relations of ideas all of the objective relations, commonly enumerated, are to be reduced—so far as they are of real significance.

De veris philosophiæ initiis Diss. inaug. publ. def. Die IX. mensis Aug. anni MDCCCXX. Beneke seeks here to show that the "end of philosophy can be reached in knowledge acquired through experience," and compares the opposite procedure, by which it is attempted to derive all from one first principle without the aid of experience, to the foolish attempt to build a house from the roof downwards. The dialectical method, he argues, which rests on the hypothesis of a progressing, natural movement of ideas, from the general to the particular, is impossible. In opposition to Kant's assertion that man has no more absolute knowledge of his own psychical functions than of the objects of the external world, but that he only knows them as presented to him by the "internal sense," Beneke, who in his *Empirical Psychology* had already rejected Kant's doctrine of the internal sense and reduced the latter to mere associations, enunciates the important principle that our knowledge of our own psychical functions is perfectly true (*nostras enim actiones, quoniam non aliter quam impulsu quodam ad eas repetendas cogitamus, imagines earum veritatem quasi internam veramque essentiam attingere apertum est*).

New Groundwork of Metaphysics (*Neue Grundlegung zur Metaphysik, als Programm zu seinen Vorlesungen über Logik und Metaphysik dem Druck übergeben*, Berlin, 1822). This is an excellent little work, in which Beneke sketches with great precision the outlines of metaphysics in the form in which he subsequently continued to view the subject. By "metaphysics" he understands the science which defines the relation between thought (representation) and being. All knowledge, says Beneke—who here extends into a general assertion what Schopenhauer had incorrectly restricted to the case of our knowledge of our "wills"—is the knowledge of something as it is in itself, *i. e.*, it is a knowledge in which the object of knowledge is represented as it is in and of itself, and independently of our representation of it. The knowledge which we thus have of our own psychical activities is direct. We are unable to recognize directly any mental representation as referring to any being but our own. Through the perceptions which we have of our bodies we obtain mediate knowledge of a being which we know also directly as it is in itself, namely, of our own psychical being. On the occasion of our perception of a body other than our own, *i. e.*, on the occasion of our having such sense-perceptions as are analogous to those we have of our own bodies, we get the idea of a soul similar to our own, and hence of a being other than our own, which, in so far as it agrees with our own psychical being, is thought and known by us as it is in itself. Our capacity to conceive correctly the being of things other than ourselves decreases regularly as we proceed from the being of other men, who are most similar to ourselves, to other forms of being less like ourselves. Of the real being of those who least resemble ourselves in temperament, age, and education, we have only very imperfect ideas. Still more imperfect are our ideas of the real being of animals, and with every step which we take downwards in the scale of perfection of being, the perfection of our ideas decreases. This latter doctrine is held by Beneke in especial opposition to Schopenhauer, who, while affirming that we may have an adequate knowledge of the world as "will," becomes, in consequence of his subsumption of all forces under the abnormally extended conception of "will," blind to the fact that the perfection of this knowledge decreases with the increase of the distance between the various natural forces and the human will; on this point Beneke refers to his review of Schopenhauer's *World as Will and Idea*, in the *Jenaer Allg. Litt.-Zeitung* for Dec., 1820. Through the principles above enunciated Beneke assumes a firm and well-grounded position, intermediate between subjective idealism and that unphilosophical realism which believes that we acquire immediate and complete knowledge of the external world by sense-perception.

Groundwork of the Physics of Morals (*Grundlegung zur Physik der Sitten, ein Gegenstück zu Kant's Grundlegung zur Metaphysik der Sitten, nebst einem Anhange über das Wesen und die Erkenntnissgrenzen der Vernunft*, Berlin, 1822). On account of the alleged "Epicureanism" contained in this work, Beneke was taken in hand by the critics, and was thus led to publish a *Defence* of the work (*Schutzschrift für meine Grundlegung zur Physik der Sitten*, Leipsic, 1823). In opposition to the Categorical Imperative of Kant, Beneke defends feeling as the basis of morals. He argues, in agreement with F. H. Jacobi, against the despotism of rules, and, in agreement with Herbart, in favor of determinism as opposed to Kant's theory of "transcendental freedom."

Contributions to a purely Psychological Theory of Psychological Pathology (*Beiträge zu einer rein seelenwissenschaftlichen Bearbeitung der Seelenkrankheitskunde, nebst einem vorgedruckten Sendschreiben an Herbart: "Soll die Psychologie metaphysisch oder physisch begründet werden?"* Leipsic, 1824).

Psychological Sketches (*Psychologische Skizzen*. Vol. I.: On the physics of the feelings, in connection with

an essay on the development into consciousness of the activities of the soul, Göttingen, 1825.—"brought as an offering of most grateful love and veneration to the *manes* of our memorable friend, Friedrich Heinrich Jacobi." Vol. II.: On the faculties of the soul and their gradual development, *ibid.*, 1827). The Relation between Soul and Body (*Das Verhältniss von Seele und Leib*, Leips., 1826). In these works, which belong together, Beneke first presents the complete development of his psychological doctrine. Bodily existence is treated by him as the mere manifestation or symptom either of psychical being itself or of forces which are similar to our psychical forces. Only our own psychical being can be perceived and comprehended by us just as it really is, and all the other parts of nature can only be thus known in so far as they are like or similar to this. The definitions given of the faculties, which are usually posited as underlying psychical phenomena, are declared to be merely nominal definitions; these "faculties" are simply falsely hypostatized aggregates of psychical phenomena. Beneke seeks to distinguish clearly and distinctly between the various psychical states and activities, and to furnish a genetic explanation of them.

Bentham's Principles of Civil and Criminal Legislation (*Grundsätze der Civil- und Criminal-Gesetzgebung, aus den Handschriften des englischen Rechtsgelehrten Jeremias Bentham, herausgegeben von Etienne Dumont, Mitglied des repräsentativen Raths von Genf. Nach der zweiten, verbesserten und vermehrten Auflage bearbeitet und mit Anmerkungen versehen von F. E. Beneke*, 2 vols., Berlin, 1830). Bentham is a "utilitarian;" the principle of his morals is the "maximization of happiness or well-being and the minimization of evil:" individual action and civil legislation should be directed toward that which procures, not merely for some, but for the greatest possible number of human beings, the greatest possible amount of happiness or well-being. Cf. below § 135. Of Bentham's doctrine treat Warnkönig, in his *Rechtsphilosophie*, Ahrens, in his *Rechtsphilos.* (Ahrens remarks, among other things, that Ulpian had already said: *publicum jus est, quod ad statum rei Romanæ spectat, privatum quod ad singulorum utilitatem; sunt enim quædam publice utilia, quædam privatim*), I. H. Fichte, in his *Geschichte der Ethik*, and Rob. von Mohl, in his *Gesch. und Litt. der Staatswissenschaften*; of Beneke's revision Warnkönig judges as follows (p. 87 seq. of his work): "Beneke revised the *Traités de législation* in a manner worthy of the reputation of Germans for thoroughness, so that it was first through him that the theory received a comparatively firm basis, just proportion, and that exactness which had previously been wanting in it. The personal opinions of Beneke, as set forth in the preface to Vol. I., pp. xix-xxiv., must not be confounded with the doctrines of Bentham's system."

Kant and the Philosophical Problem of our Time (*Kant und die philosophische Aufgabe unserer Zeit, eine Jubeldenkschrift auf die Kritik der reinen Vernunft*, Berlin, 1832). The work was intended for the year 1831, since the first edition of the *Critique of the Pure Reason* [in commemoration of which this work of Beneke's was written] was published in 1781; but, owing to a delay on the part of the printers, it was not given to the public until 1832. Beneke seeks to show that Kant's intention was to overthrow that kind of speculation which transcends the sphere of experience, and that it was partly owing to the method *a priori* followed in the *Critique* that this end was not attained and that inexperimental speculation respecting the "Absolute" again came into vogue.

Manual of Logic as the Science of the Technics of Thought (*Lehrbuch der Logik als Kunstlehre*, etc., Berlin, 1832).

Manual of Psychology as a Natural Science (*Lehrbuch der Psychologie als Naturwissenschaft*, Berlin, 1833; 2d ed., *ibid.*, 1845; 3d ed., 1861). Dressler, the editor of the third edition, says justly that this work "occupies the central position among all the works of Beneke;" it "presents with the greatest precision the principles of the new psychology." It is principally on the basis of this work that we shall give below the doctrine of Beneke. [Engl. transl. of 3d ed., "Elements of Psychol." transl. by G. Rane, Lond., 1871.—*Tr.*]

Philosophy in its Relation to Experience, Speculation, and Life (*Die Philosophie in ihrem Verhältnisse*, etc., Berlin, 1833).

Theory of Education and Teaching (*Erziehungs- und Unterrichtslehre*, 2 vols., Berlin, 1835-36; second enlarged and improved edition, 1842; 3d edition, ed. by J. G. Dressler, 1864). The first volume contains the theory of education, the second of teaching. Particularly in consequence of the application made in this work of psychology to the work of scientifically establishing a practical pedagogical system, the doctrine of Beneke became extended among a tolerably numerous body of teachers.

Explanations concerning the Nature and Meaning of the Fundamental Hypotheses in my Psychology (*Erläuterungen über die Natur und Bedeutung meiner psychologischen Grundhypothesen*, Berlin, 1836).

Our Universities and their Needs (*Unsere Universitäten und was ihnen Noth thut, in Briefen an Dr. Diesterweg*, Berlin, 1836). Occasioned by Diesterweg's work on the "Vital Question of Civilization."

Outlines of the Natural System of Practical Philosophy (*Grundlinien*, etc., Vol. I.: General Ethics, Berlin, 1837; Vol. II.: Special Ethics, 1840; Vol. III.: Outlines of Natural Law, of Politics, and of the Philosophy of Criminal Law,—laying of the general foundations, 1838). An additional volume on natural right in its special aspects was proposed, but was not published. Dressler, in his review of Beneke's writings, justly says: "Beneke himself pronounced his Ethics to be his most successful work, and the one which was

most satisfactory to himself, and whoever is acquainted with it will readily agree with him in this. Its richness is extraordinary, but still more worthy of praise are the thoroughness and profundity with which it handles the most difficult questions."

Syllogismorum analyticorum origines et ordinem naturalem demonstravit Frid. Ed. Beneke, Berlin, 1839.

System of Metaphysics and Religious Philosophy (*System der Metaphysik und Religionsphilosophie, aus den natürlichen Grundverhältnissen des menschlichen Geistes abgeleitet*, Berlin, 1840). Beneke's "metaphysics," *i. e.*, his determination of the relation between representative thought and being, or his solution of the fundamental problem in the science of cognition, is a development of the principles already enunciated by the author in 1822. The work is characterized equally by clearness and thoroughness, and the psychological bases are still more carefully and solidly laid than in the previous work. In his "religious philosophy" Beneke seeks to furnish a philosophical explanation only of religion as a psychical phenomenon, but not of the objects of religious faith; whatever lies beyond the range of experience can only be believed, but not known. Still Beneke believes that empirical psychology tends to corroborate the belief in the continued existence of the soul after death, not because the soul is a "simple" being—which doctrine Beneke holds to be but a prejudice, incompatible with a sound empirical psychology—but because of the "energy of the primitive faculties," in which the spiritual nature of the soul is grounded.

System of Logic as the Art of Thought (*System der Logik als Kunstlehre des Denkens*, 2 vols., Berlin, 1842). This is a development of the outlines laid down in the "*Lehrbuch*" of 1832. Beneke separates the consideration of "analytical" thought from that of "synthetic" thought, and leaves out the problems relating to the theory of cognition, which are treated in the "Metaphysics;" compare on these points my criticism in § 34 of my *System of Logic*.

The New Psychology (*Die neue Psychologie. Erläuternde Aufsätze zur zweiten Auflage meines Lehrbuchs der Psychologie als Naturwissenschaft*, Berlin, 1845).

Die Reform und die Stellung unserer Schulen, ein philosophisches Gutachten, Berlin, 1848.

Pragmatische Psychologie oder Seelenlehre in der Anwendung auf das Leben, 2 vols., Berlin, 1850.

Lehrbuch der pragmatischen Psychologie, Berlin, 1853.

Archiv für die pragmatische Psychologie, 3 vols., Berlin, 1851–53.

However difficult, says Beneke in the introduction to his "Manual of Psychology as a Natural Science," it may be to indicate the real boundaries which separate the psychical from the corporeal, yet the subject of our science is marked off by a perfectly clear and definite boundary-line: to psychology belongs all that which we apprehend through internal perception and sensation; whatever we apprehend through external senses is at least not at once and immediately adapted to become the subject of psychological elaboration, but must, if it is to be thus employed, have been first interpreted over into products of the internal sense.

The method of psychology must agree with the method of the sciences of external nature. It must begin with observations of experience, and experience must (through induction, the construction of hypotheses, etc.) be rationally elaborated.

Psychology is not to be founded on metaphysics; on the contrary, metaphysics, as also all other philosophical sciences, must have psychology for its basis.

Beneke designates as the principal stadia in the progress of scientific psychology, the banishment of "innate ideas" (through Locke, especially) and of innate, abstract "faculties of the soul" (through Herbart and through Beneke himself). Still, the notion of faculties, continues Beneke, is not to be altogether rejected; but instead of those "faculties" (such as understanding, judgment, etc.) which have been falsely assumed as primitive, but which are in reality only hypostatized class-conceptions of very complicated phenomena, we must seek to determine which are the truly elementary faculties. Power or faculty is the operative factor in any process. The faculties are not mere possibilities, but possess within the soul the same degree of reality which the developments, rendered possible by them, have as conscious phenomena. The faculties are the elements of the substance of the soul itself; they are not inherent in a substratum distinct from themselves. A thing is only the sum of its own combined forces.

The immediate scientific problem is to analyze the results of direct consciousness into their simple elements, *i. e.*, to reduce them to a number of fundamental processes or laws. When these are known, we can conclude from them to the powers or faculties in question.

The fundamental psychical processes, according to Beneke, are the following:

First Fundamental Process. The human soul, in consequence of impressions or excitations coming from without, forms sensations and perceptions. It does this through the agency of internal powers or faculties, through which it receives and appropriates the excitations. The faculties which perceive these excitations are the "elementary faculties" of the soul. Beneke assigns to each one of the senses not merely one "elementary faculty," but a number of such faculties, which in each case constitute one system. Every separate sensuous excitation is taken up into the soul through only one of the elementary faculties.*

Second Fundamental Process. New elementary faculties are constantly being developed and added to the human soul. Beneke concludes to the reality of this Process, which is not a direct object of internal perception, from the circumstance that from time to time there arises, in connection with the elementary faculties, a state of exhaustion, an inability to form sensuous perceptions or to execute other activities, for which, therefore, new and independent elementary faculties are required, and that these latter then remain for a subsequent, more or less extended use. Beneke compares this process to the development of forces through assimilation of nutriment, which constitutes the vital process in vegetable organisms. He considers it probable,

* The "elementary faculties" are the most elementary parts of the psychical substance. The question may be asked, in what relation these so-called "elementary faculties" stand to the ganglionic cells, or to the elements of those cells, in the brain. The distinction between the corporeal and the psychical generally is a distinction of perception or apprehension, and not of being. The same thing may be perceived either internally in self-consciousness, or externally through the senses; in the former case we know it as it really is; in the latter, our perception is determined partly by the nature of the object, and partly by the nature of the perceiving subject. Extension in space, in the proper sense of the expression, as extension in three dimensions, belongs (according to Beneke, whose doctrine in this regard is far from being incontrovertible) only to sensible phenomena, while in the sphere of absolute reality juxtaposition of objects is impossible, except in some such sense as that in which one thought is said to exist in us by the side of another. All materiality, therefore, belongs only to phenomena. Now, not only that which we know through internal perception as being psychical in its nature, but also, in reality, that which appears to us through the senses as material, consists of several systems of forces. It is conceivable, that all of these should be capable of being known in the twofold manner above indicated. But it is also equally conceivable that some of the systems should be only externally, and others only internally perceptible, or, finally, that some, namely the lowest systems, should be only externally, others, namely the highest, only internally perceptible, and that certain intermediate systems should be, at least under certain circumstances, capable of being perceived in both ways. Beneke holds the third alternative to be the actually correct one. Hence the hypothesis, that the separate "elementary faculties" are identical with the smallest parts of the brain which are microscopically perceptible, say with the ganglionic cells, is not impossible, according to Beneke's principles. This hypothesis, however, is not propounded by Beneke, who shows himself the rather inclined to regard as correct the opinion that the psychical substance is *realiter* distinguished from the brain. Between all higher and lower systems of forces, whether they be perceived in the one way or in the other, there exists (in virtue of the "process of equalization or balancing," to be mentioned below) a causal nexus, the possibility of which is explained by the real homogeneity of all these systems. But in the case of that which is both internally and externally perceived (or which is conceived after the analogy of that which is so perceived) there exists neither causal nexus nor pre-established harmony, but a parallelism, such as must result from the apprehension in a twofold manner of what is really identical. This real identity between objects of internal and external perception Beneke appears at first (in agreement with Spinoza, Kant, and Schopenhauer) to have regarded as quite extended; but afterwards he appears to have admitted it only within a more limited range. Beneke discusses these questions more in his Metaphysics than in his Psychology, which should, he said, be based *only* on internal perception.

that the new elementary faculties are formed by means of a peculiar process of transformation, from the excitations taken up by the senses, with the co-operation of all those (spiritual and corporeal) systems which are united in the one human being.*

Third Fundamental Process. The combination of faculties and excitations, as originally grounded in sensations and perceptions, and as continued in reproductions of sensations and perceptions, shows sometimes a firmer and sometimes a less firm union and interpenetration of these two classes of elements. When the union of faculties and excitations is weak, and these elements are therefore comparatively mobile, they can be transferred in the most multiform relations from one psychical combination to another. In all psychical combinations, at every moment in life, there is an active movement toward a balancing or equalizing of the mobile elements contained in these combinations. Examples of this are seen in the increased intensity of all our ideas under the influence of the emotions of joy, enthusiasm, love, anger, etc., and also in every instance of the recurrence of an idea, owing to its association with another which has just been renewed in consciousness, etc.†

Every psychical product, says Beneke, which has arrived at a relative degree of perfection in the soul to which it belongs, persists, even after it has disappeared from consciousness or from within the sphere of active psychical development, in the unconscious or interior being of the soul, whence it may afterwards emerge and enter into the conscious psychical development, or be reproduced. Beneke terms that which thus persists in an unconscious state, with reference to that portion of previous consciousness which has now become unconscious, but still continues to exist, a "trace," and, in reference to that which by the process of reproduction may be developed from

* It is indeed a singular hypothesis, that the excitations coming from without, sound, light, etc., which, when sensations are formed, are "appropriated" by the "elementary faculties," are partially "transformed" into such faculties. The excitation which affects the ear is, as we are taught by physics, the result of a vibratory motion in the particles of the air; the excitation which affects the eye, results from a like motion of particles of ether, etc. Now, however these processes may differ from the sensations excited by them, and however different they may be in their real nature from that which physics supposes them to be, yet they cannot be anything else than processes (although Beneke, who here neglects the physical theory on the ground that it is based on confused sensuous perception, regards them as something substantial), and it is utterly impossible to perceive how a mere process can be changed into an "elementary faculty," into a force or substance. It would be a far more natural hypothesis, and one which not only is not in conflict with Beneke's principles, but which with the theory of innate elementary faculties becomes indispensably necessary, to suppose that, as the higher corporeal systems grow out of the lower, so from the former the psychical systems are formed by the constant assimilation of new forces, and that, say, the nervous system and the brain serve as a sort of reservoir of forces for the soul. But these "forces" or faculties cannot then be conceived as empty receptacles that must be filled from without, but only as containing in themselves the rudiments of sensations, which need only to be excited, concentrated, and variously combined through the operation of external stimuli. Every substance must, as was rightly perceived by Leibnitz and Herbart, be conceived as endowed with ideas ("representations," in the widest sense of this term).

† The terms in which Beneke describes this fundamental process, like those in which he expresses his theory of the "reception" of excitations and of the development of new elementary faculties through the transformation of received excitations, imply the notion of substantial excitations (stimuli) which must be supposed to enter into the soul. But if the stimulus is found in a process which, in case it can itself be perceived—as, for example, it may be in the case of vibrating chords—must be perceived as motion, and more particularly as vibratory motion, the sensation arising in the soul can only be conceived as a reaction from within outwards, which can neither be entirely nor partially separable from the "elementary faculty" from which it proceeds. Only the motion with which a sensation is combined, but not the sensation itself, is transmissible. How one motion can be converted into other motions is made intelligible by the laws of mechanics. But it is impossible to conceive how, when elementary "substantial" stimuli are transferred from one psychical formation to another (*e. g.*, from the notion of red to the notion of blue, which by the laws of association the notion of rod calls up, or from the notion of a name to that of the thing), their conversion into elements of different qualities, as necessarily required by Beneke's hypothesis, is possible.

this unconscious sphere, a "rudiment" (*Anlage*, or, in order to express the fact that this capacity is the result of previous processes, *Angelegtheit*,* a technical term which is scarcely capable of justification in linguistic regards). Of the "traces" we know nothing except through the reproductions of them, but we are perfectly sure of their existence, because the results of these reproductions are in qualitative and quantitative agreement with the earlier (reproduced) psychical formations. In the first edition of his *Manual of Psychology*, Beneke included among his "fundamental processes" the process of the formation of "traces," but called attention even then to the fact that the real process in the case was properly only the transition into unconsciousness of what had been conscious; the persistence of the "traces," he added, needed no explanation, since naturally what had once existed would continue to exist, until through the agency of special causes it should be annihilated. But since, as he alleges, the process of becoming unconscious may here be explained by a partial discontinuance of the action of stimuli, which is only one side of the process of the transference or balancing of the mobile elements, he admits in the second edition of the *Manual* that the partial discontinuance of the action of stimuli is insufficient to justify the assumption of a special fundamental process, and mentions the fact of the internal persistence of traces, notwithstanding its "extraordinary importance for the development of the soul," only supplementarily in connection with the third fundamental process.† The "trace," says Beneke, is that which comes between the production of a psychical activity (*e. g.*, a sensuous perception) and its reproduction (*e. g.*, as recollection). Since these two acts are psychical acts, we may only conceive of the trace in psychical form. There is no "where" for these traces. As the soul in general, so also all its parts are nowhere; for our self-consciousness, which is our only source of knowledge, contains directly and intrinsically not the least indication of spatial relations in itself. The traces are connected with no bodily organ; for the space—perceptions and spatial changes which run parallel with the psychical developments are only synchronous—at the most, always synchronous—with the latter, and cannot possibly be made internal to them or regarded as forming their (substantial) basis.‡

* *Anlage*=groundwork, rudiment, germ; *Angelegtheit*=the having been made such.—*Tr.*

† It is very doubtful whether in reality the formation of traces does not involve a special process. A "partial discontinuance of stimuli" seems capable of accounting only for a decrease, and not for such a total loss of consciousness with reference to the "traces," as takes place in the case of ideas and of all other psychical products which are preserved in "memory." But if the stimulus altogether dies away on the occasion of the transference of the state of excitation which it produces to other psychical formations, the original resultant representation can no longer exist at all, and if any "trace" of it is to exist, this must have been formed by a special process; just as, when a body is no longer struck by certain rays of light, no image of it remains visible, unless—through the photographic art, for example—certain impressions or traces of it have been produced by a special process.

‡ That relation to space belongs to external perception alone, and not to internal perception as well, is simply, in our view, a Kantian error, here shared by Beneke, but an error which, if Kant's false conception of the "internal sense" be given up, must also be itself given up. In the images of sensuous perception space is included. If, now, "internal experience" is nothing else than the association of psychical products—among which these sensuous perceptions belong—with a subjective direction, together with the subsumption of these products under the appropriate psychological conceptions, space is involved in the object of internal perception, *i. e.*, in the psychical products or elements in question, and this, too, not in any figurative, but in the literal sense. The space, in which external objects exist, is only the continuation beyond the field of vision of the space in which our psychical products exist, and this continuation involves no change in the nature of the projected space, as is shown to a certainty by the fact of the validity of the mathematical laws of mechanics, as applied to the external objects which affect our senses. (See my *System of Logic*, § 44, and the article there cited on the "Theory of Vision," in Henle and Pfeuffer's *Zeitschrift für rationelle Medicin*, III., V., 1858, pp. 269-282. The arguments brought forward against my theory by Alb. Lange [in his *Geschichte des*

Fourth Fundamental Process. Like products of the human soul in consciousness, or similar products, according to the measure of their similarity, attract each other or tend to enter into closer union with each other. Examples are seen in the case of witty combination of ideas, in the formation of comparisons and judgments, in the confluence of similar feelings and tendencies, etc. But the only result of all these attractions is a coming together of like products; a permanent union or blending of them results when the supplementary, balancing process is added.*

In view of the nature of these fundamental processes Beneke defines the soul as "a perfectly immaterial being, consisting of certain fundamental systems [of forces], which not only in themselves, but also in combination with each other, are most intimately one, or constitute one being." The human soul differs from the soul of the brute by its spiritual character, which is founded in the higher energy of its elementary faculties. Further, the more individual and definite character and the more definite separation of the different elementary systems of forces in man, as also his possession of hands and of language and his education during a long period of childhood, are also causes of the spiritual superiority of man over the brute.

The powers or faculties of the developed soul consist of the traces of psychical products previously excited. This is the leading theorem of Beneke's psychology. To

Materialismus, Iserlohn, 1866, pp. 497–499]—who nevertheless accepts [p. 487 *seq.*] my interpretation of the relation between the images of our own bodies and the images of other external objects in our minds—has failed to convince me that I am in error, because I must answer in the negative the question which he proposes on p. 499, line 13, whether a being having no idea of a space of more than two dimensions would not still perceive a mathematical order in phenomena, although he could never have an idea of what we know as the stereometrical relations of things. The mathematical connection between the world which occasions our perceptions—supposing this world to exist in three dimensions—and the world as it would appear to such a being, would not be "undisturbed" [harmonious]; it would not be rendered intelligible to this being by purely planimetrical laws, in the sense in which, for example, the phenomena observed by the astronomer are rendered intelligible to us by mathematico-mechanical laws.) If, then, not only time, as Beneke admits, but also extension in space in three dimensions belongs to the real nature of things, Beneke's assertion that the soul in general and all its parts are "nowhere," and that for the "traces" there is no "where," is erroneous. The affirmation, therefore, that the "traces" are connected with no bodily organ, and that motions only run parallel with the psychical processes (these motions being only changes which are perceived by the senses or which are conceived after the analogy of such changes), must be modified. The theory of a parallelism, resting on a twofold manner of perceiving or representing one and the same real change or occurrence, is correct. So also is the doctrine that the internal perception of such change or occurrence is, so far as it extends, in agreement with the reality. But it cannot be admitted that spatial extension in three dimensions and that figure and motion do not belong to the sphere of reality, and that sensuous perception and the physical and physiological science which rests upon its basis, do not furnish a very essential contribution to psychological knowledge.

* Beneke cannot and does not intend here to speak of an "attraction" in the literal mathematical sense of this term. Further, every real alteration in the relative location in consciousness of psychical products, in the case of this fourth *Process*, would involve the contradiction of requiring the same thing not only to be in different places, but also to be fixed at different places, because it must enter into the most various combinations (as, for example, the notion of Cæsar or of Cicero enters into various combinations, according as we consider the one as a Roman, a statesman, or a general, or the other as a Roman, a statesman, an orator, a philosopher, etc.). For these reasons, Beneke's conception of "attraction" should be reduced to that of the excitation of similar elements by each other. But then this process will fall, with the "balancing" process and the process of the transference of stimuli, under the conception of an affection proceeding from within, or an affection of psychical products—which may or may not be at the moment in a state of excitation—by others which are in this state. This internal affection may take either one of two different directions. It may pass either to psychical products (ideas, etc.) which had previously existed in consciousness along with the one now newly excited, or it may pass simply to similar products, even though no bond of connection had been established between these through their previous union or immediate succession in consciousness. The fundamental processes may therefore be designated as the formation of faculties, affection from without, formation of traces, and affection from within in a twofold direction.

enter into a more minute consideration of the manner in which Beneke develops this theorem, in passing from the consideration of the various forms of sensation up to the explanation of the most complicated and the highest psychical processes, would conduct us beyond the limits which must be observed in this compend.

The fundamental requirement of morals, according to Beneke, is that we should in each case do that which is shown by an objectively and subjectively correct estimation of moral values to be the best or naturally the highest.

We estimate, says Beneke, the values of all things with reference to the (transient or permanent) influence which they exert in enhancing or depressing our psychical development. This influence may manifest itself for our consciousness in a threefold manner: (1) directly, at the time when it is exerted; (2) as reproduced in the imagination, in the form of a notion; it is on the basis of such notions that the values of things are estimated or that we form our practical views of things; (3) as reproduced in the form of desires, which determine the character of man and are the basis of his actions. In all three forms we measure the values of things by direct comparison of their effects upon our psychical development. In a like manner, also, we judge of the moral conditions of other men; we figure to ourselves, namely, or we attempt to realize in our own consciousness the effects of others' experiences upon their psychical life. Whether we are selfish or unselfish in doing this depends upon the group of ideas, in connection with which these effects, as reproduced in us, are felt, whether in connection with the ideas relating to ourselves, or in connection with those which relate to others. The extent of the enhancing or depressing effect of objects upon our psychical life is determined partly by the nature of our elementary faculties, partly by the nature of the stimuli or excitations, and partly by the series of acts which result, in accordance with the fundamental laws of psychical development, from the combinations of faculties and stimuli. By so much as the influence of an object of consciousness, as determined by these universal causes, is of a higher order, by so much is the value of the object for all men higher. In the gradation of good and evil, as determined by this criterion, a practical norm is given, which is valid for all men. Guided by this norm, for example, every man of a certain degree of education and not morally corrupted must prefer the pleasures of the nobler senses to those of the baser, the improvement of the mind to pleasure, the welfare of an extended community to his own merely personal advancement, etc.* Whatever is [objectively] felt and [subjectively] desired as being of higher worth or nature, when estimated with reference to the standard of judgment grounded in man's nature, is also morally required. But the objective and subjective correctness of this estimation may be prejudiced by too numerous accumulations of pleasurable and unpleasurable sensations of an inferior order, and the consequent right conduct of the will may be prejudiced by too numerous accumulations of desires and dislikes of an inferior order, whereby the inferior gains an excessive influence in determining the result of the comparison of moral values and in controlling the tendencies of the moral agent. A correct judgment of moral values is distinguished from an incorrect one by the feeling of duty or moral necessity which accompanies it, and which is legitimated by the fact of its origin in the innermost, fundamental essence of the human soul. Moral necessity is a necessity founded in the most profound and radical nature of the human soul. Moral relations are manifested to us most originally and

* It is to these relations of moral worth that, in the essay above (p. 191) cited, I have reduced—with essential modifications, however—the ethical "Ideas" of Herbart. In particular, I reduce the idea of perfection to the first two relations mentioned above, the idea of benevolence to the relation between personal welfare and the welfare of others, etc.

directly in feelings. From the coalescence of moral feelings of the same form result moral conceptions, and from the employment of these conceptions as predicates applicable to the acts, whereby we estimate the relative moral worth of things, and to moral tendencies result moral judgments. The idea of a universal moral law is compatible only with a highly advanced state of moral development, and is an outcome from more special moral judgments, founded on the comparison of particular moral values. Kant's categorical imperative implies a very high degree of abstraction, and is therefore of a very derivative nature.*

§ 134. During the last decennia in Germany, the Hegelian, among all the philosophical schools, has counted the largest number of adherents. Next to it has stood the Herbartian school. More recently the modification of systems through a return to Aristotle or Kant, and the study of philosophy upon its historic side, have occupied the larger number of minds. Schleiermacher's influence has been greater in theology than in philosophy; still the direction of recent philosophical inquiry has been materially influenced by impulses originating with him. The teachings of Schopenhauer and Beneke, as also of Krause, Baader, Günther, and others, have been reproduced and modified by individual disciples. Materialism has representatives in Vogt, Moleschott, and Büchner, and Sensualism in Czolbe and others. While resting in part upon the basis of the doctrines of earlier thinkers, Trendelenburg, Fechner, Lotze, von Kirchmann, von Hartmann, and others, have advanced in new and peculiar paths.

A list of the works which have issued from the Hegelian school is given by Rosenkranz in the first volume of *Der Gedanke, Organ der philos. Gesellschaft in Berlin*, ed. by C. L. Michelet, Berlin, 1861, pp. 77, 183, 256 seq. In the same journal a series of articles have been published, reviewing the present condition of philosophy, and especially of the Hegelian philosophy, in and out of Germany. In the first number of the Herbartian *Zeitschrift für exacte Philosophie im Sinne des neueren philosophischen Realismus*, edited by F. H. Th. Allihn and T. Ziller, Leipsic, 1860, Allihn furnishes, as a supplement to his biography of Herbart, a summary of the literature of the Herbartian school; subsequent numbers contain further notices. The *Zeitschrift für Philosophie und philosophische Kritik*, edited by I. H. Fichte, Ulrici, and Wirth, gives, in addition to its critical notices of philosophical works, a regular semi-annual list of all newly-published philosophical works and essays. The latest philosophical productions are also very fully and carefully noted in the *Philosophische Monatshefte*, edited by J. Bergmann [now ed. by E. Bratuscheck.—*Tr.*].

To the Hegelian School belong:

Bruno Bauer. *Zeitschrift für speculative Theologie*, Berlin, 1836–38; *Die Posaune des jüngsten Gerichts wider Hegel den Atheisten und Antichristen* (ironical, anonymous), Leipsic, 1841; *Hegel's Lehre von Religion und Kunst* (anonymous), Leipsic, 1842. Cf. Bruno Bauer's critique of the Gospel of John (*Kritik der evang. Gesch. des Johannes*, 1840), and of the synoptic Gospels (1841–42). Also in his "History of the Civilization," etc., of the 18th century (*Gesch. der Cultur, Politik und Aufklärung des 18. Jahrh.*, 4 vols., 1843), and in other historical works, Bauer indicates his philosophical stand-point.

Edgar Bauer. *Der Streit der Kritik mit Kirche und Staat*, Bern, 1841.

Ferdinand Christian Baur. *Die christliche Gnosis*, Tübingen, 1835; *Die christliche Lehre von der Dreieinigkeit*, and other works, see above, Vol. I., § 73 seq. An affectionate and an excellent characterization of F. C. Baur's character and scientific achievements is given by Zeller, in Vols. VII. and VIII. of the *Preuss. Jahrbücher*, reprinted in Zeller's *Vorträge und Abhandlungen*, Leipsic, 1865, pp. 354–434. Zeller opposes the inclusion of Baur "precisely in the Hegelian school," and directs attention to the essential influence of Schelling and more particularly of Schleiermacher on him, but acknowledges that the Hegelian philosophy not only agrees with Baur's interpretation of history, but also exerted an influence on Baur in this connection, through its "idea of the development of humanity, as proceeding according to a law of inner necessity, by an immanent dialectic, and manifesting successively, according to a fixed law, all the momenta which are included in the nature of spirit." [Cf. A. Réville, *Le docteur Bauer et ses œuvres*, in the *Rev. des Deux Mondes*, 1863, Vol. 45, pp. 104–141; and an article in the *Christian Examiner*, Vol. 64, p. 1 seq.—*Tr.*].

Karl Theodor Bayrhoffer. *Die Idee des Christenthums*, Marburg, 1836; *Die Idee der Philosophie*, Marburg, 1838; *Beiträge zur Naturphilosophie*, Leipsic, 1839–40. Since the publication of these works, Bayrhoffer has receded from the doctrine of Hegel, affirming that Hegel's dialectic is nothing but a piece of logical legerdemain, in which the correct idea of an absolute, synthetic unity is converted into the false idea of a self-resolving contradiction, and urging the real synthetic unity as that into which the abstractly identical monads of Herbart and their synthetic appearance, and the self-analyzing identity of Hegel, should alike be resolved; see *Philos. Monatshefte*, III., 1869, p. 369 seq.

K. M. Besser. *System des Naturrechts*, Halle, 1830.

Gustav Biedermann. *Die speculative Idee in Humboldt's Kosmos, ein Beitrag zur Vermittelung der Philosophie und der Naturforschung*, Prague, 1849; *Die Wissenschaftslehre*, Vol. I.: *Lehre vom Bewusstsein*, Vol. II.: *Lehre des Geistes*, Vol. III.: *Seelenlehre*, Leipsic, 1856–60; *Die Wissenschaft des Geistes*, 2d ed., Prague, 1870; *Kant's Kritik der reinen Vernunft und die Hegel'sche Logik*, Prague, 1869; *Metaphys. in ihrer Bedeutung für die Begriffswissenschaft*, Prague, 1870; *Zur log. Frage, ibid.*, 1870; *Pragm. und begriffswiss. Geschichtschr. der Philos., ib.*, 1870.

Franz Biese. *Die Philosophie des Aristoteles*, Vol. I.: *Logik und Metaphysik*, Vol. II.: *Die besonderen Wissenschaften*, Berlin, 1835–42. *Philosophische Propädeutik*, Berlin, 1845.

Joh. Gust. Friedr. Billroth. *Vortes. über Religionsphilos.*, ed. by Erdmann, Leipsic, 1837, 2d ed., 1844.

Friedr. Wilh. Carové. *Ueber alleinseligmachende Kirche*, Vol. I., Francf.-on-the-M., 1826, Vol. II., Göttingen, 1827; *Kosmorama*, Francf., 1831; *Rückblick auf die Ursachen der französischen Revolution und Andeutung ihrer welthistor. Bestimmung*, Hanau, 1834. *Vorhalle des Christenth. oder die letzten Dinge der alten Welt*, Jena, 1851.

Moritz Carriere. *Die Religion in ihrem Begriff, ihrer weltgesch. Entwicklung und Vollendung, ein Beitrag zum Verständniss der Hegel'schen Philosophie*, Weilburg, 1841. Carriere has written various other works on the history and philosophy of religion and on æsthetics, in which, however, he deviates essentially from the Hegelian stand-point; such are, in particular, *Die philosophische Weltanschauung der Reformationszeit* (Stuttgard, 1847), *Relig. Reden und Betrachtungen für das deutsche Volk* (anonymous, Leipsic, 1850; 2d edition, 1856), *Das Wesen und die Formen der Poesie* (Leipsic, 1856), and *Æsthetik* (Leipsic, 1859). His most recent work is announced by him as a philosophy of history from the point of view of æsthetics; the work is entitled: Art in connection with the Development of Civilization, and the Ideals of Humanity (*Die Kunst im Zusammenhange der Culturentwickelung*, etc., Vol. I.: *Der Orient*, Leipsic, 1863, Vol. II.: *Hellas und Rom, ibid.*, 1865, 2d enlarged ed., 1872 (71), Vol. III.: *Das Mittelalter, ibid.*, 1868, Vol. IV.: *Renaissance und Reformation in Bildung, Kunst und Literatur, ibid.*, 1871). Carriere commenced his philosophical career under the influence of Hegel, but has diverged from Hegel in a manner similar to that in which, among others, the younger Fichte has diverged from him, namely, by seeking to "disprove the truth of the doctrines of pantheism and deism, and to establish the existence of a God, dwelling in the world and possessing self-consciousness, at once personal and infinite," and further, especially in æsthetics, by "laying stress upon the significance of individuality and sensibility, as opposed to the abstract universality of pure thought."

Franz Chlebik. *Dialektische Briefe*, Berlin, 1869; *Die Philos. des Bewussten und die Wahrheit des Unbewussten in den dialektischen Grundlinien des Freiheits- und Rechtsbegriffs nach Hegel und Michelet*, Berlin, 1870.

August von Cieszkowski. *Prolegomena zur Historiosophie*, Berlin, 1838; *Gott und Palingenesie*, Berlin, 1842; *De la pairie et de l'aristocratie moderne*, Paris, 1844.

Kasimir Conradi. *Selbstbewusstsein und Offenbarung*, Mayence, 1831; *Unsterblichkeit und ewiges Leben, ibid.*, 1837; *Kritik der christl. Dogmen*, Berlin, 1841.

Karl Daub (1765–1836). *Die dogmatische Theologie jetziger Zeit oder die Selbstsucht in der Wiss. des Glaubens und seiner Artikel*, Heidelberg, 1833; *Ueber den Logos, ein Beitrag zur Logik der göttlichen Namen*, in Ullman and Umbreit's *Studien*, 1833, No. 2; *Philosophische und theolog. Vorlesungen*, edited by Marheinecke and Dittenberger, 7 vols., Berlin, 1838–44. (Cf. Wilh. Hermann, *Die speculative Theologie in ihrer Entwicklung durch Daub*, Hamburg and Gotha, 1847.) [Erdmann terms Daub the "founder of Protestant speculative theology." Originally writing as a Kantist, then falling under the influence of Schelling

* The merit of Beneke's earnest attempt to furnish a complete genetic explanation of the psychical functions, is great. But the merit of his thoroughly reasoned ethics, as a contribution to philosophical knowledge and to the interests of moral action as directed by philosophical knowledge, is yet greater and still more imperishable; for it founds the science of ethics upon distinctions of worth, as measured by the relations of things to our psychical development, and so provides an uncorrupted and a certain guide for moral action.

and of mystical ideas, he finally became the intimate and trusted friend of Hegel, whose ideas he applied to theology.—*Tr.*]

U. Dellingshausen. *Versuch einer speculativen Physik*, Leipsic, 1851.

J. F. G. Eiselen. *Handbuch des Systems der Staatswissenschaften*, Breslau, 1828.

Joh. Eduard Erdmann. *Vorlesungen über Glauben und Wissen*, Berlin, 1837; *Leib und Seele*, Halle, 1837, 2d ed., 1849; *Grundriss der Psychologie*, Leipsic, 1840, 4th ed., 1862; *Psychologische Briefe*, Leips., 1851, 4th ed., 1868; *Grundriss der Logik und Metaphysik*, Halle, 1841, 4th ed., 1864; *Vermischte Aufsätze*, Leips., 1845; *Philosophische Vorlesungen über den Staat*, Halle, 1851; *Vorlesungen über akademisches Leben und Studium*, Leipsic, 1858. Erdmann's works on the history of philosophy have been already mentioned above [Vol. I., p. 11, Vol. II., p. 1]. *Ernste Spiele*, Berl., 1871; *Sehr Verschiedenes je nach Zeit und Ort, ibid.*, 1871. [Erdmann is a leading "right-wing" Hegelian, and Professor at Halle.—*Tr.*]

Emil Feuerlein. *Die philos. Sittenlehre in ihren gesch. Hauptformen*, Tübingen, 1857–59; *Rousseau'sche Studien*, in a series of articles in *Der Gedanke*, Berlin, 1861, seq.

Kuno Fischer. *Logik und Metaphysik oder Wissenschaftslehre*, Heidelberg, 1852, 2d revised edit., *ibid.*, 1865; *Diotima, die Idee des Schönen*, Pforzheim, 1849; *Geschichte der neueren Philosophie*, Mannheim, 1854, seq., 2d ed., 1865, seq.; *Baco von Verulam*, Leipsic, 1856; *Schiller als Philosoph*, Francfort-on-the-M., 1858; *Shakespeare's Charakterentwicklung Richard's III.*, Heidelberg, 1868; *Ueber die Entstehung u. d. Entwickelungsformen des Witzes* (two lectures), *ib.*, 1871. [Kuno Fischer is an eloquent lecturer and writer on the history of modern philosophy. Some account of the controversy between Trendelenburg and Kuno Fischer, with reference to the interpretation of Kant, will be found below.—*Tr.*]

Constantin Frantz. *Philosophie der Mathematik*, Leipsic, 1842; *Die Naturlehre des Staats, als Grundlage aller Staatswissenschaft*, Leipsic and Heidelberg, 1870.

Ernst Ferd. Friedrich. *Beiträge zur Förderung der Logik, Noëtik und Wissenschaftslehre*, Vol. I., Leips., 1864. In his treatment of "logic proper," or the science of objective reason, Friedrich follows Hegel and more particularly Rosencranz, but deviates radically from Hegelianism, especially through the distinction of three "equivocally disparate" disciplines, which he combines under the collective name of logic, namely, real, formal, and inductive logic, or "the science of objective reason, the theory of thought, and the doctrine of experience."

Georg Andreas Gabler (1786–1853). *Lehrbuch der philos. Propädeutik, erste Abth.: Kritik des Bewusstseins*, Erlangen, 1827; *De veræ philosophiæ erga religionem christianam pietate*, Berl., 1836; *Die Hegel'sche Philosophie, Beiträge zu ihrer richtigen Beurtheilung und Würdigung, Heft* 1, Berlin, 1843.

Eduard Gans (1798–1839). *Das Erbrecht in weltgesch. Entwickelung*, Berlin, 1824–35; *Vorlesungen über die Gesch. der letzten fünfzig Jahre*, in Raumer's *Histor. Taschenbuch*, 1833–34; *Vermischte Schriften*, Berlin, 1834.

Karl Friedr. Göschel (1781–1861). *Ueber Goethe's Faust*, Leips., 1824; *Aphorismen über Nichtwissen und absolutes Wissen im Verhältniss zum christl. Glaubensbekenntniss*, Berlin, 1829; *Der Monismus des Gedankens, zur Apologie der gegenwärtigen Philosophie* (particularly against C. H. Weisse) *auf dem Grabe ihres Stifters*, Naumburg, 1832; *Von den Beweisen für die Unsterblichkeit der menschlichen Seele im Licht der speculativen Philosophie, eine Ostergabe*, Berlin, 1835; *Die siebenfältige Osterfrage*, Berlin, 1837; *Beiträge zur speculativen Philosophie von Gott, dem Menschen und dem Gottmenschen*, Berlin, 1838.

L. J. Hanusch. *Handbuch der wissenschaftlichen Denklehre* (*Logik*), Lemberg, 1843, 2d revised ed., Prague, 1850; *Grundzüge eines Handbuchs der Metaphysik*, Lemberg, 1845.

Leop. von Henning (died Oct. 6, 1866). *Principien der Ethik in histor. Entwicklung*, Berlin, 1834. The *Jahrbücher für wiss. Kritik*, an influential organ of Hegelianism, was edited from 1827 to 1847 by Henning.

Herm. Friedr. Wilh. Hinrichs (1794–1861). *Die Religion im innern Verhältnisse zur Wissenschaft, nebst einem Vorwort von Hegel*, Heidelberg, 1822 (the preface by Hegel contains a sharp criticism of Schleiermacher); *Vorlesungen über Göthe's Faust*, Halle, 1825; *Grundlinien der Philosophie der Logik*, Halle, 1826; *Das Wesen der antiken Tragödie*, Halle, 1827; *Schiller's Dichtungen*, Halle, 1837–38; *Geschichte der Rechts- und Staatsprincipien seit der Reformation in hist.-philos. Entwickelung*, Leipsic, 1848–52; *Die Könige*, Leipsic, 1852.

Heinr. Gust. Hotho. *Vorstudien für Leben und Kunst*, Stuttgard and Tübingen, 1835; *Geschichte der deutschen und niederländischen Malerei*, Berlin, 1842–43; *Die Malerschule Hubert's van Eyck*, Berlin, 1855–58; *Gesch. der christl. Malerei*, Stuttgard, 1869, seq. [Hotho, editor of Hegel's Æsthetics, is a Professor at Berlin, where he lectures on æsthetics.—*Tr.*]

Alexander Kapp. *Die Gymnasialpädagogik im Grundrisse*, Arnsberg, 1841.

Christian Kapp. *Christus und die Weltgeschichte*, Heidelberg, 1823; *Das concrete Allgemeine als Weltgeschichte*, Erlangen, 1826; *F. W. Jos. Schelling, ein Beitrag zur Gesch. des Tages von einem vieljährigen Beobachter*, Leipsic, 1843.

Ernst Kapp. *Philosophische oder vergleichende allgemeine Erdkunde als wiss. Darstellung der Erdverhältnisse und des Menschenlebens in ihrem innern Zusammenhang*, Brunswick, 1845; 2d edition, with the title: *Vergleichende allgemeine Erdkunde in wissenschaftlicher Darstellung, ibid.*, 1868.

Friedrich Kapp. *Der wiss. Schulunterricht als ein Ganzes*, Hamm, 1834; *G. W. Fr. Hegel als Gymnasialdirector oder die Höhe der Gymnasialbildung unserer Zeit*, Minden, 1835. Friedrich, Ernst, and Alexander Kapp are brothers. Christian Kapp is their cousin.

Karl Köstlin. *Æsthetik*, Tübingen, 1863–69.

Ferdinand Lassalle. *Die Philosophie Herakleitos' des Dunkeln von Ephesos*, Berlin, 1858; *Das System der erworbenen Rechte, eine Versöhnung des positiven Rechts und der Rechtsphilosophie*, Leipsic, 1861.

Ad. Lasson. Works on Eckhart, Bacon, and Fichte, see above, in the relevant paragraphs. *Das Culturideal und der Krieg*, Berlin, 1868; *Ueber die Natur des Rechts und des Staats*, in the *Philos. Monatshefte*, VI., 1870; *Princip und Zukunft des Völkerrechts*, Berlin, 1871.

Gust. Andreas Lautier. *Philos. Vorlesungen*, Berlin, 1853.

G. O. Marbach. *Lehrbuch der Gesch. der Philosophie* (Part I.: History of Greek Philosophy, Part II.: Hist. of Mediæval Philosophy), Leipsic, 1838–41.

Friedr. Aug. Märcker. *Das Princip des Bösen nach den Begriffen der Griechen*, Berlin, 1842; *Die Willensfreiheit im Staatsverbande*, Berlin, 1845.

Philipp Marheineke (1780–1846). *Die Grundlehren der christl. Dogmatik*, 2d ed., Berlin, 1827; *Theolog. Vorlesungen*, ed. by St. Matthies and W. Vatke, Berlin, 1847 seq.

Carl Ludwig Michelet. *System der philosoph. Moral, mit Rücksicht auf die juridische Imputation, die Geschichte der Moral und das christliche Moralprincip*, Berlin, 1828; *Anthropologie und Psychologie*, Berlin, 1840; *Vorlesungen über die Persönlichkeit Gottes und menschliche Unsterblichkeit, oder die ewige Persönlichkeit des Geistes*, Berlin, 1841; *Die Epiphanie der ewigen Persönlichkeit des Geistes, eine philosophische Trilogie* (First Dialogue: The Personality of the Absolute, Nuremberg, 1844; Second Dialogue: The Historical Christ and the New Christianity, Darmstadt, 1847; Third Dialogue: The Future of Humanity and the Immortality of the Soul, or the Doctrine of the End of Things, Berlin, 1852); *Zur Verfassungsfrage*, Francfort-on-the-Oder and Berlin, 1848; *Zur Unterrichtsfrage, ibid.*, 1848; *Esquisse de Logique*, Paris, 1856; *Die Geschichte der Menschheit in ihrem Entwicklungsgange von 1775 bis auf die neuesten Zeiten*, Berlin, 1859–60; *Naturrecht oder Rechtsphilosophie* (Vol. I.: Introduction, Fundamental Rights, Private Right; Vol. II.: Public Right, General History of Legal Right, Berlin, 1866). The historical works of Michelet, relative to Aristotle and to modern philosophy, have been already mentioned above (Vol. I., § 46, pp. 140, 142, § 50, p. 170, and Vol. II., § 120, p. 137). *Hegel, der unwiderlegte Weltphilosoph, eine Jubelschrift*, Leips., 1870. [Michelet, born December 4, 1801, at Berlin, is one of the most eminent of the members (with Strauss, etc.) of the left wing of the Hegelian school. The Absolute, says M., arrives at consciousness first in man. Humanity is the "epiphany of the eternal personality of the [absolute] spirit."—*Tr.*]

Ferd. Müller. *Der Organismus und die Entwicklung der politischen Idee im Alterthum, oder die alte Geschichte vom Standpunkte der Philosophie*, Berlin, 1839.

Theodor Mundt. *Æsthetik, die Idee der Schönheit und des Kunstwerks im Lichte unserer Zeit*, Berlin, 1845, new edition, Leipsic, 1868. Notwithstanding all of Mundt's criticism of Hegel, and notwithstanding the special emphasis which he places on the principle of "immediacy" [direct intuition or perception as opposed to abstract thought], his book bears essentially the impress of Hegelian ideas.

Joh. Georg Mussmann. *Lehrbuch der Seelenwissenschaft*, Berlin, 1827; *Grundlinien der Logik und Dialektik*, Berlin, 1828; *Grundriss der allgem. Gesch. der christl. Philosophie mit bes. Rücksicht auf die christl. Theologie*, Halle, 1830.

Ludwig Noack. *Der Religionsbegriff Hegels*, Darmstadt, 1845; *Mythologie und Offenbarung; die Religion in ihrem Wesen, ihrer gesch. Entwickelung und absoluten Vollendung*, Darmstadt, 1845–46; *Das Buch der Religion, oder der relig. Geist der Menschheit in seiner gesch. Entwicklung*, Leipsic, 1850; *Die Theologie als Religionsphilosophie in ihrem wiss. Organismus*, Lübeck, 1852; *Die christliche Mystik des Mittelalters und seit dem Reformationsalter*, Königsberg, 1853; *Geschichte der Freidenker* (History of the Free-thinkers, English, French, and German), 1853–55. Noack has also written numerous other works, mostly on religious philosophy, in which he follows in part Reiff and Planck. From 1846 till 1848 he edited at Darmstadt, the *Jahrbücher für speculative Philosophie und speculative Bearbeitung der empirischen Wissenschaften*, in which the Philosophical Society of Berlin published its transactions. Noack's *Psyche* (1855 seq.) is a popular scientific journal of applied psychology. N. has also published *Von Eden nach Golgotha, biblisch-geschichtliche Forschungen*, Leipsic, 1868.

Heinrich Bernhard Oppenheim. *System des Völkerrechts*, Francf.-on-the-M., 1845; *Philosophie des Rechts und der Gesellschaft*, Stuttgard, 1850 (forms Vol. V. of the New Encyclopædia of the Sciences and Arts).

Ed. Ph. Peipers. *System der gesammten Naturwissenschaften nach monodynamischem Princip*, Cologne, 1840–41; *Die positive Dialektik*, Düsseldorf, 1845.

K. Prantl (whose philosophical stand-point agrees only partially with the Hegelian). *Die gegenwärtige Aufgabe der Philosophie*, Munich, 1852; *Gesch. der Logik*, Leipsic, 1855 seq. [see above, Vol. I., p. 13]; *Die geschichtlichen Vorstufen der neuern Rechtsphilosophie*, Munich, 1858.

Jak. Friedr. Reiff. *Der Anfang der Philosophie*, Stuttgard, 1841; *Das System der Willensbestimmungen oder die Grundwissenschaft der Philosophie*, Tübingen, 1842; *Ueber einige Punkte der Philosophie*, Tüb., 1843. Reiff, originally an Hegelian, has approached in his doctrine toward the philosophy of Fichte.

Friedr. Richter (of Magdeburg). *Die Lehre von den letzten Dingen*, Part I., Breslau, 1833; Part II., Berlin, 1844; *Der Gott der Wirklichkeit*, Breslau, 1854.

Joh. Karl Friedr. Rosenkranz. *De Spinozæ philosophia diss.*, Halle and Leipsic, 1828; *Ueber Calderon's wunderthätigen Magus, ein Beitrag zum Verständniss der Faust'schen Fabel*, Halle, 1829; *Der Zweifel am Glauben, Kritik der Schriften de tribus impostoribus*, Halle, 1830; *Geschichte der deutschen Poesie im Mittelalter*, Halle, 1830; *Die Naturreligion*, Iserlohn, 1831; *Encyclopädie der theolog. Wissenschaften*, Halle, 1831, 2d ed., 1845; *Allg. Gesch. der Poesie*, Halle, 1832–33; *Das Verdienst der Deutschen um die Philos. der Geschichte*, Königsberg, 1835; *Kritik der Schleiermacher'schen Glaubenslehre*, Königsberg, 1836; *Psychologie*, Königsberg, 1837, 2d ed., 1843, 3d ed., 1863; *Geschichte der Kant'schen Philosophie* (in Vol. XII. of Kant's Works, edited by Ros. and Schubert), Leipsic, 1840; *Das Centrum der Speculation, eine Komödie*, Königsberg, 1840; *Studien*, 5 *Bändchen*, Berlin and Leipsic, 1839–48; *Ueber Schelling und Hegel; Sendschreiben an Pierre Leroux*, Königsberg, 1843; *Schelling*, Dantsic, 1843; *Hegels Leben*, Berlin, 1844; *Kritik der Principien der Strauss'schen Glaubenslehre*, Leipsic, 1845, 2d ed., 1864; *Göthe u. s. Werke*, Königsberg, 1847, 2d ed., 1856; *Die Pädagogik als System*, Königsberg, 1848; *System der Wissenschaft*, Königsberg, 1850; *Meine Reform der Hegelschen Philosophie, Sendschreiben an J. U. Wirth*, Königsberg 1852; *Ästhetik des Hässlichen*, Königsberg, 1853; *Die Poesie und ihre Geschichte, Entwicklung der poet. Ideale der Völker*, Königsberg, 1855; *Apologie Hegels gegen Haym*, Berlin, 1858; *Wissenschaft der logischen Idee*, Königsberg, 1858–59; together with *Epilegomena, ibid.*, 1862; *Diderot's Leben und Werke*, Leipsic, 1866; *Hegel's Naturphilos. und ihre Erläuterung durch den ital. Philosophen A. Vera*, Berlin, 1868; *Hegel als deutscher Nationalphilosoph*, Leipsic, 1870; *Erläuterungen zu Hegel's Encyklopädie der Philos.*, in the *Philos. Bibl.*, Vol. 34, Berlin, 1870. [Rosenkranz, born April 23, 1805, Professor at Königsberg, and a man of very comprehensive culture, has occupied what was termed the "centre" in the Hegelian school. He has labored with eminent ability for the filling out and perfection of the Hegelian system, not, however, in the spirit of servile discipleship, but with independence and originality. He modifies, in particular, to a certain degree the order in which the various topics within the system of philosophy are treated by Hegel.—*Tr.*]

Constantin Rössler. *System der Staatslehre*, Leipsic, 1857 (a work written only partially in the Hegelian spirit).

Heinr. Theod. Rötscher. *Aristophanes und sein Zeitalter*, Berlin, 1827; *Abhandlungen zur Philos. der Kunst*, Berlin, 1837–47; *Die Kunst der dramat. Darstellung*, Berlin, 1841, 2d edit., Leips., 1864.

Arnold Ruge. *Die Platonische Ästhetik*, Halle, 1832; *Neue Vorschule der Ästhetik*, Halle, 1837. The *Halle'sche Jahrb. für deutsche Wiss. und Kunst* (3 vols., Leipsic, 1838–40) and *Deutsche Jahrbücher für Wiss. und Kunst* (2 vols., Leips., 1841–42), were edited by Ruge and Echtermeyer. *Anecdota zur neuesten deutschen Philosophie und Publicistik*, Zurich, 1843; *Deutsch-französische Jahrbücher* (ed. by Ruge and Marx), 2 Nos., Paris, 1844; *Gesammelte Werke*, 4 vols., Mannheim, 1846; Translation of Buckle's History of Civilization, Leips. and Heidelberg, 1860, 4th ed., 1871. Ruge's Autobiography: *Aus früherer Zeit*, Vols. I.–IV., Berlin, 1862–67. The fourth volume of the latter work contains a speculative review of the history of philosophy from Thales until the suppression of Ruge's *Jahrbücher*. *Reden über die Religion, ihr Entstehen und Vergehen, an die Gebildeten unter ihren Verehrern* (in opposition to Schleiermacher), Berlin, 1869 (1868). [Ruge's significance in the history of philosophy is chiefly connected with the above-named Reviews, in the editing of which he took the principal part. During the years in which he was employed upon them, the division of the Hegelian school into parties designated as the Left, the Centre, and the Right became an accomplished result, and Ruge assumed a position on the extreme left. Strauss, the biblical critic, and L. Feuerbach, the extreme naturalistic Hegelian, were among his collaborators in his Reviews. The standpoint finally assumed in the latter was one of sharp criticism of, or hostility to, existing forms of government and religion. In the political movements of 1848 and 1849, Ruge was prominent among the agitators for a reform. In the latter year he founded at London, in connection with Ledru-Rollin, Mazzini, and others, the "European Democratic Committee for the Solidarity of the Party without distinction of Peoples." Since 1850 Ruge has lived in England.—*Tr.*]

Jul. Schaller. *Die Philosophie unserer Zeit, zur Apologie und Erläuterung des Hegel'schen Systems*, Leipsic, 1837; *Der histor. Christus und die Philosophie, Kritik der dogmatischen Grundidee des Lebens Jesu von Strauss*, Leipsic, 1838; *Geschichte der Naturphilosophie von Baco von Verulam bis auf unsere Zeit*, Leipsic and Halle, 1841–46; *Vorlesungen über Schleiermacher*, Halle, 1844; *Darstellung und Kritik der Philosophie Ludwig Feuerbach's*, Leipsic, 1847; *Briefe über Alexander von Humboldt's Kosmos*, Leipsic, 1850; *Die Phrenologie in ihren Grundzügen und nach ihrem wiss. u. prakt. Werthe*, Leipsic, 1851; *Seel' und Leib*, Weimar, 1855, etc.; *Psychologie*, Vol. I.: *Das Seelenleben des Menschen*, Weimar, 1860.

Max Schasler. *Die Elemente der philos. Sprachwissenschaft Wilhelm von Humboldt's*, Berlin, 1847;

Populäre Gedanken aus Hegel's Werken, Berlin, 1870; *Ästhetik als Philos. der Schönheit und der Kunst*, Berl., 1871. [The last-named work is being published in parts. The first volume, containing a "Critical History of Æsthetics from Plato down to the Present Day" has just been completed. Schasler is the editor of the *Dioskuren* (art journal published in Berlin).—*Tr.*]

Alexis Schmidt. *Beleuchtung der neuen Schelling'schen Lehre von Seiten der Philosophie und Theologie, nebst Darstellung und Kritik der früheren Schelling'schen Philosophie, und einer Apologie der Metaphysik, besonders der Hegel'schen, gegen Schelling und Trendelenburg*, Berlin, 1843.

Reinhold Schmidt. *Christliche Religion und Hegel'sche Philosophie*, Berlin, 1837; *Solger's Philosophie*, Berlin, 1841.

Heinr. Schwarz. *Ueber die wesentlichsten Forderungen an eine Philos. der Gegenwart und deren Vollziehung*, Ulm, 1846; *Gott, Natur und Mensch, System des substantiellen Theismus*, Hannover, 1857.

Herm. Schwarz. *Versuch einer Philosophie der Mathematik, verbunden mit einer Kritik der Aufstellungen Hegel's über den Zweck und die Natur der höhern Analysis*, Halle, 1853.

F. K. A. Schwegler. *Jahrbücher der Gegenwart*, Tübingen, 1844–48; *Die Metaphysik des Aristoteles, Text, Uebersetzung und Commentar*, Tübingen, 1846–48; *Geschichte der Philosophie im Umriss*, Stuttgard, 1848, 7th edition, 1870 [see above, Vol. I., p. 11; for an account of Schwegler's life and works, see the sketch of his life by J. H. Stirling, prefixed to Stirling's translation of his History.—*Tr.*]. *Gesch. der griechischen Philosophie*, ed. by Carl Köstlin, Tübingen, 1859; 2d ed., 1870 (69).

G. W. Snellman. *Versuch einer speculativen Entwicklung der Idee der Persönlichkeit*, Tübingen, 1841.

Theod. Sträter. *Studien zur Geschichte der Ästhetik*, I., Bonn, 1861; *Die Composition von Shakespeare's Romeo und Julie*, Bonn, 1861.

David Friedrich Strauss. *Das Leben Jesu, kritisch bearbeitet*, Tübingen, 1835–36, 4th ed., 1840; *Streitschriften zur Vertheidigung dieser Schrift. ibid.*, 1837–38; *Zwei friedliche Blätter*, Altona, 1839; *Charakteristiken und Kritiken*, Leipsic, 1839; *Die christl. Glaubenslehre in ihrer gesch. Entwicklung und im Kampfe mit der modernen Wissenschaft dargestellt*, Tübingen, 1840–41; *Das Leben Jesu für das deutsche Volk*, Leipsic, 1864 (cf. on this popular edition and on Renan's Life of Jesus, Zeller, in Von Sybel's *Hist. Zeitschrift*, XII., p. 70 seq., reprinted in Zeller's *Vortr. u. Abh.*, Leips., 1865, p. 435 seq.); *Der Christus des Glaubens und der Jesus der Geschichte*, Berlin, 1865 (a critique upon Schleiermacher's lectures on the life of Jesus); *Voltaire*, 1st and 2d eds., Leips., 1870. [A translation of Strauss' *Life of Jesus critically examined* was published in 3 vols. at London, 1846, and in one (?) volume, at New York, in 1855. Of the popular revised edition, an "authorized translation" (*New Life of Jesus*) was published at London in 1865. Other translations from the writings of Strauss, published in England, are: *Reminiscences of a Lutheran Clergyman* (1838), and *Soliloquies on the Christian Religion* (1845). Reviews of Strauss' *Life of Jesus* may be read in the *Foreign Quarterly Review*, Vol. 22, 1839, pp. 101–135, *Westminster Review* (on Strauss and Theod. Parker). Vol. 47, 1847, pp. 71–90 (American edition), *Edinburgh Rev.*, Vol. 124, 1866, pp. 230–243 (Am. edit.), and *Westm. Rev.*, Vol. 82, 1864, pp. 138–152 (Am. edit.); see further, articles on *Christian Doctrine and Modern Science*, *For. Quart. Rev.*, Vol. 27, 1841, pp. 218–231 (Am. edit.), *Political Pamphlets*, *Edinb. Rev.*, Vol. 88, 1848, pp. 49–54 (Am. edit.), and *Strauss and the Mythic Theory* in the *North American Review*, Vol. 91, 1860, pp. 130–148. With Strauss originated the division of the Hegelians into parties termed severally the Left, the Right, and the Centre; cf. Erdmann, *Grundriss der Gesch. der Philosophie*, Vol. II., § 337, 3 (2d ed., p. 657). The basis of this division was found in the varying interpretation, within the Hegelian school, of the relation of the Hegelian philosophy to the questions of man's immortality, the nature of Jesus, and the personality of God. The Left asserted the incompatibility of Hegelianism with orthodox views on these subjects; the Right affirmed the contrary.—*Tr.*]

Gustav Thaulow. *Erhebung der Pädagogik zur philos. Wissenschaft oder Einleitung in die Philosophie der Pädagogik*, Berlin, 1845; *Hegel's Ansichten über Erziehung und Unterricht, aus Hegel's sämmtl. Schriften gesammelt und systematisch geordnet*, Vol. I.: *Zum Begriff der Erziehung*, Kiel, 1853, Vol. II.: *Gesch. der Erziehung, ibid.*, 1854, Vol. III.: *Zur Gymnasialpädagogik u. Univ. Gehöriges, ibid.*, 1854; *Einleitung in die Philosophie und Encyclopädie der Philos. im Grundrisse*, Kiel, 1862.

Wilh. Vatke. *Die menschl. Freiheit in ihrem Verhältniss zur Sünde und zur göttlichen Gnade*, Berlin, 1841.

Friedr. Theod. Vischer. *Ueber das Erhabene und Komische, ein Beitrag zur Philosophie des Schönen*, Stuttgard, 1837; *Kritische Gänge*, Tübingen, 1844 seq.; *Ästhetik oder Wissenschaft des Schönen*, I.: *Metaphysik des Schönen*, II.: *Die Kunst*, III.; *Die Künste*, Reutlingen and Leipsic, 1846–57; *Register*, Stuttgard, 1858; *Ueber das Verhältniss von Inhalt und Form in der Kunst*, Zurich, 1858.

Georg Weissenborn. *Vorlesungen über Schleiermacher's Dialektik und Dogmatik*, Leipsic, 1847–49; *Logik und Metaphysik*, Halle, 1850–51; *Vorlesungen über Pantheismus und Theismus*, Marburg, 1859.

Karl Werder. *Logik als Commentar und Ergänzung zu Hegel's Wiss. der Logik*, 1st part, Berlin, 1841.

Eduard Zeller. *Platonische Studien*, Tübingen, 1839: *Die Philosophie der Griechen*, Tüb., 1844–52, 2d ed., 1855–68; 3d ed., Part I., 1869 [for English translations, see above, Vol. I., p. 23.—*Tr.*]; *Vorträge und*

Abh. gesch. Inhalts (see above, Vol. I., p. 12); *Ueber Bedeutung und Aufgabe der Erkenntnisstheorie*, Heidelberg, 1862; *Die Politik in ihrem Verhältniss zum Recht*, in the *Preuss. Jahrb.*, Vol. 21, No. 6, June, 1868; *Ueber die Aufgabe der Philosophie und ihre Stellung zu den übrigen Wissenschaften* (Academ. Discourse), Heidelberg, 1868.

The Hegelian doctrine was modified and transformed into a doctrine of naturalism by Ludwig Feuerbach. In this step he was followed by Friedr. Feuerbach and others. The works of L. Feuerbach are: *Gedanken über Tod und Unsterblichkeit*, Nuremberg, 1830; *Philosophie und Christenthum*, Leips., 1839; *Das Wesen des Christenthums*, Leipsic, 1841, etc.; *Grundsätze der Philosophie der Zukunft*, Zurich, 1843; *Das Wesen der Religion*, Leips., 1845, 2d ed., 1849; *Vorlesungen über das Wesen der Religion*, lectures delivered at Heidelberg in 1848, and printed in vol. 8 of his works; other works by Feuerbach do not need to be specified here. L. Feuerbach, *Sämmtliche Werke*, 10 vols., Leipsic, 1846–66. Friedrich Feuerbach, a brother of Ludwig, has written *Grundzüge der Religion der Zukunft*, Zurich and Nuremberg, 1843–44. An ironical caricature of Feuerbach's religious criticism was the negation of morals in the interest of egoism, in *Der Einzige und sein Eigenthum*, by Max Stirner (pseudonyme), Leipsic, 1845. [Ludwig Feuerbach, originally an Hegelian, interpreted the "absolute spirit" of Hegel as meaning the finite, subjective spirit of man. In his "Thoughts on Death and Immortality" he denied the immortality of man. In an early historical work he extolled Spinoza and announced himself a pantheist. Subsequently he developed a doctrine of philosophical egoism, styled himself an atheist, and claimed more especially fellowship in philosophy and theology with Fichte and Schleiermacher. The I, says Feuerbach, the individual sense-endowed man, is the only absolute. In the individual, concrete man, the substance of Spinoza and the Ego of Fichte are united. Only the sensible is real; hence it is not the reason, which decides what is true. True is what is perceived by the educated senses of the philosopher. Pleasure, sensuous enjoyment, is the highest good for man; this, however, is not to be attained by man in a state of isolation, but only by man in society. Feuerbach's writings occupy a prominent place in German Communistic literature. His own attitude became one of hostility to philosophy, as indicated in his repeated declaration that the peculiarity of his final philosophy was that it was no philosophy. Cf. Erdmann, *Grundriss der Gesch. der Philosophie*, Vol. II., § 338, 3, 5, and § 341, 3.—*Tr.*]

A doctrine of realism is developed by K. Chr. Planck in *Die Weltalter*, Part I.: *System des reinen Realismus*, Tübingen, 1850; Part II.: *Das Reich des Idealismus, oder zur Philos. der Geschichte, ibid.*, 1851; *Grundlinien einer Wissenschaft der Natur, als Wiederherstellung der reinen Erscheinungsformen*, Leipsic, 1864.

On the basis of a criticism, but partial adoption, of the Hegelian stand-point, and partly in agreement with Schelling's later teachings, I. H. Fichte [son of J. G. Fichte], Weisse, Chalybäus (who also pays particular attention to Herbart's doctrine), and others seek by critical modification to reconcile speculation on the one hand with theology, and on the other with empirical science. Of a similar tendency are also the philosophical investigations of Secrétan, who has specially cultivated the field of religious philosophy; Perty, who has labored in the field of physical philosophy and anthropology; and also Becker and Huber, disciples of Schelling; Hoffman and other pupils of Baader (see above, p. 238), and others.

Immanuel Hermann Fichte (born in 1797). *Sätze zur Vorschule der Theologie*, Stuttgard, 1826; *Beiträge zur Charakteristik der neueren Philosophie*, Sulzbach, 1829, 2d ed., 1841; *Ueber Gegensatz, Wendepunkt und Ziel heutiger Philosophie*, Heidelberg, 1832; *Das Erkennen als Selbsterkennen*, Heidelberg, 1833; *Ontologie*, Heidelberg, 1836; *Die Idee der Persönlichkeit und der individuellen Fortdauer*, Elberfeld, 1834, 2d ed., Leipsic, 1855; *Speculative Theologie*, Heidelbg., 1846–47; *System der Ethik*, Leipsic, 1850–53; *Anthropologie*, Leipsic, 1856, 2d ed., 1860; *Zur Seelenfrage, eine philos. Confession*, Leipsic, 1859; *Psychologie, die Lehre von dem bewussten Geiste des Menschen*, Leipsic, 1864; *Die Seelenfortdauer und die Weltstellung des Menschen, eine anthropolog. Untersuchung und ein Beitrag zur Religionsphilosophie, wie zu einer Philosophie der Geschichte*, Leips., 1867. On the relation of his own philosophical opinions to those of Weisse, Fichte has expressed himself in the *Zeitschr. für Philos.*, Vol. 50, No. 3, Halle, 1867, p. 262 seq. Weisse, he says, sought only to expand and perfect the Hegelian philosophy, which he regarded as the culmination and totality of all previous systems. But he himself believes that essential elements of earlier philosophies, and in particular of the Kantian philosophy, have not attained to their due influence in Hegel's system, and that it is necessary for the progress of philosophy that these elements should be taken up anew, and that also the principles of other post-Kantian philosophers than Schelling and Hegel should be fully and duly considered. [In the *Zeitschrift für Philosophie*, new series, Vol. 55, pp. 237–259, and Vol. 56, pp. 47–86, are contained two parts of an article by I. H. v. Fichte on "Soul, Spirit, and Consciousness from the Stand-point of Psychophysical

science," in which, among other things, it is argued (with partial reference to the writer's earlier works) that the notions of time and space have their origin in a peculiar "feeling of duration and extension" which is inseparable from the soul's consciousness of itself, that they have their basis in the objective nature of the soul itself, and that time and space are simply the "accompanying qualities or, more explicitly, the phenomenal effects of all real things, as such." This solution of the question as to the nature of space and time, and as to the subjective and objective significance of our conceptions of them, is regarded by Fichte as forming the basis of a sound and firmly established philosophy of realism, which yet diminishes in nothing the superiority in rank of the ideal nature of the human spirit, nor takes away in the least from the significance and importance of *à priori* truths. I. H. Fichte has been called an eclectic. His method is partly speculative and partly experimental, and the results at which he arrives in speculative theology and rational psychology are such as may be termed, in general, orthodox.—*Tr.*]

Hermann Ulrici. *Ueber Princip und Methode der Hegelschen Philosophie*, Halle, 1841; *Das Grundprincip der Philosophie*, Leipsic, 1845–46: *System der Logik*, Leipsic, 1852; *Compendium der Logik, ibid.*, 1860, 2d ed., improved and enlarged, 1872; *Zur logischen Frage*, Halle, 1870; *Glauben und Wissen, Speculation und exacte Wissenschaft*, Leipsic, 1858; *Gott und die Natur*, Leipsic, 1861, 2d edit., 1866; *Gott und der Mensch*, Vol. I.: *Leib und Seele*, Leipsic, 1866. Ulrici has also written various anti-materialistic articles for his journal and also works belonging to the field of æsthetic history; in particular: *Charakteristik der antiken Historiographie*, Berlin, 1833; *Geschichte der hellenischen Dichtung*, Berlin, 1835; *Ueber Shakspeare's dramatische Kunst*, Halle, 1839, 2d ed., 1847, 3d ed., Leipsic, 1868.

[Hermann Ulrici, born March 23, 1806, was educated for the law at the Universities in Halle and Berlin. After two years of legal practice he gave up, upon the death of his father, in 1829, his profession, and devoted himself for four years to the study of literature, philosophy, and science. In the summer of 1833 he qualified as a lecturer at Berlin and in 1834 was called to a professorship at Halle, which he still holds. His position in philosophy is independent. He seeks to mediate between realism and idealism, but to show that "to the soul in distinction from the body, and to the [divine] mind in distinction from nature, not only independent existence, but also the supremacy, both belong and are actually given." In the numerous works published by him, and in his numerous and extended contributions to the *Zeitschrift für Philos.*, etc., of which with Fichte and Wirth he is joint editor, he has manifested an abundant literary activity and has made very important contributions to the philosophical science of his times. The following account of his philosophy is taken from Erdmann's *Grundriss der Geschichte der Philosophie*, Vol. II., § 347, 6:—

"In the assertion that the Hegelian system is a system of one-sided or imperfect idealism, Ulrici, as above shown, agreed with Chalybäus. Only, the realistic elements, with which Ulrici seeks to supply its defects, remind us, not, as in the case of Chalybäus, of the doctrine of Herbart, for whom Ulrici seems to have no special predilection, but, as is easily explicable in the case of one so familiar as Ulrici with English literature, of the doctrines which grew up across the channel. By the impulses which, perhaps without his own knowledge, he received from Locke and especially from the Scottish school, it would doubtless be correct to account for such sayings of Ulrici's as that whenever there is a conflict between speculation and empirical science, one of the two, and probably the former, must be in the wrong, or, even, that the claim of the Pythagorean theorem to certainty would be poor, if it had not been confirmed by actual measurement." Here follows in Erdmann's account a summary of the doctrinal contents of Ulrici's *Grundprincip der Philosophie*, *System der Logik*, and *Compendium der Logik*, the first being critical, and the two latter containing the speculative foundation of the system of philosophy or the doctrine of knowledge. "As the result of the critical part, Ulrici affirms that the history of modern philosophy proves that all systems thus far, whether dogmatic or skeptical, realistic or idealistic, have assumed the fact of human thought. (So, in particular, the dialectic of Hegel, whose pretension that his philosophy assumed nothing was, says Ulrici, a delusion, the truth of which would im-

ply a reversal of the possibilities of things.) The point, which alone is to be criticised in connection with this assumption, is that those who made it had no proper consciousness of its meaning and its justification. Philosophy, the mission of which, speaking generally, is to ascertain facts and to establish their laws, must first of all explain the fact of thought and knowledge. The first thing is therefore to see what is contained in this fact, and what therefore was assumed, when thought was assumed. The question: what does thought mean? leads to the following propositions, in which the fundamental qualifications of thought are formulated. Thought is activity. But the conception of activity is a simple conception which cannot be defined; motion, which some have affirmed to be more general in its conception than activity and as such to contain the latter, is itself a species of activity. In addition to productivity, which is a mark of thinking, as of all activity, a specific mark of thought is the act of distinguishing, so that thought may be defined as distinguishing activity, though not as the mere act of distinguishing. To these may be added as a third qualification, that thought, by exercising this distinguishing activity upon itself, becomes consciousness and self-consciousness—a result which may be reached either independently, or through the co-operation of others. Since thought is a distinguishing activity, fourthly, it can exist only in distinctions, *i. e.*, we can only have a thought when and in so far as we distinguish it from another thought; hence pure thought, *i. e.*, thought without content, is no thought, and all real thinking involves multiplicity in thought. Finally, in the fact of thought and of knowledge is contained the certainty that it is possible for thought to know in its true nature the object of thought (at least, when this object is itself). These fundamental assumptions of all philosophy, which taken together may be said to constitute the fundamental facts on which philosophy rests, are now, further, to be justified. Since, however, they are elementary assumptions, their justification cannot consist in the derivation of them from other more elementary assumptions. On the contrary, they can only be justified by its being shown that the supposition of their contraries leads to absurdities or impossibilities, that we are obliged to make them and therefore are justified in making them. Hence necessity in thought, the opposite of arbitrary thought, is the proper criterion of truth, and between necessity in thought and reality in existence no distinction can be made.

"Necessity in thought is of two kinds. It may be founded, firstly, in the nature of all human thinking. In that case it is formal or logical, and logic is therefore the first part of the doctrine of cognition. Logic considers the laws, to which, since they are founded in the nature of thought as a distinguishing activity, all thought, including therefore what is optional in thought, accidental or arbitrary, must be subject. From the conception of distinguishing activity two laws of thought, and only two, may be derived: the law of identity *and* contradiction (since in the case of all distinction, there is neither pure identity nor pure difference), and the law of causality (founded in the distinguishing of activity from act, or from the result of activity). For the more precise determination of the nature of a given distinction or of the respect in which the objects compared are distinguished (whether in respect of magnitude, or of qualities, etc.), certain conceptions are necessary, which go before the act of distinguishing and in so far may be termed innate, and which are to be termed categories. The various theories held in regard to these categories are criticised by Ulrici, in order to show that they all appear as relatively true, when the categories are considered as the absolutely universal relations of difference and likeness, which are derived from the nature of all distinction, for then it is clear that they must possess metaphysical and psychological, as well as logical significance. The categories are divided by Ulrici into elementary categories (being, unity, difference, space, activity, time, etc.), and derived categories. The latter, again, are divided into simple categories of quality, and into categories of relation and generic nature (*Wesenheit*) and categories of order. In the latter class, first the category of design, then order and subordination of conceptions (concept, judgment, syllogism), and finally the Idea are discussed, at the end of each section the relation of the category to the absolute being considered. Logic thus ends with the absolute Idea, or with the absolute as Idea, *i. e.*, with the demonstration that, while the Idea of each being is that generic nature which expresses the relation of the being to the universal end, the absolute alone is an end in itself. In close connection with the logical categories, and especially with the categories of order, stand the ethical categories which, combined with the feeling of obligation, constitute the basis of ethics. The categories right, good, true, beautiful are, like all others, to be deduced from the nature of distinguishing activity.

"But in addition to this logical necessity in thought, there is, secondly, a necessity which rests on the co-operation of factors which exist outside of the sphere of thought. Not only is it impossible for me to deny that A = A; I cannot deny and I must assume that what is perceived exists. The theory of idealism in its most extreme form, or the theory that out of thought nothing whatever exists, can easily be refuted, if we hold fast to the theorem that thought is distinguishing activity; as a thinking being I can think of myself only when I think of a something which has not the faculty of thought and from which I thus distinguish myself; the hypothesis of material existence is necessary in thought. In like manner I can think of myself as limited, only when I distinguish myself from a something which limits me; I am therefore compelled to assume that other spirits beside myself exist. Finally, the idea of my own dependence implies the idea of an independent (unconditioned) being, on whom all other things depend; thus the ideas expressed by the words world, spirit, and God are necessary in me as a thinking being. True, the substance of these three ideas is thus far only negative: not-thinking, not-me, not-dependent. But the positive complement is obtained by us through the positive operation, upon our organs of consciousness, of the objects of these ideas, which objects we are forced to assume as existing by the law of causality, at the same time that it is possible that our ideas only correspond with, and are not an absolutely equivalent image of their objects. As the realistic doctrine that our knowledge depends upon the operation of real objects upon us is necessary to thought, so also is the idealistic doctrine that our knowing depends upon an activity of our own. If thus realism and idealism equally rest on necessities of thought, and are therefore alike philosophically tenable standpoints, this does not mean that philosophy must occupy a standpoint superior to and different from either, but rather that the doctrine of the world, the mind, and God must be developed, on the one hand, altogether realistically up to the point where realism sees herself forced to proceed idealistically (to assume laws hypothetically, and so on), and at the same time and in like manner, on the other hand, altogether idealistically, until a point is reached where it becomes necessary to take refuge in the experimental (the definitely qualitative, etc.). Not only, however, does Ulrici demand of philosophy what Fichte censured in Kant's transcendental idealism [See Erdmann, § 312, 2]; he also gives in his doctrine of knowledge an outline, first of a completely realistic, and then of a completely idealistic philosophy of the universe, in order to prove that, unless in both philosophies conjecture is confounded with cogent demonstration, each must confess its need of the other for its own completeness.

"What is thus here developed in the form of a mere sketch, is more fully expanded

and discussed in two works by Ulrici, of which the one supplements the other, and which have attracted the attention of a much larger circle of readers than his earlier books. These works are: *Gott und die Natur* (God and Nature) and Part I. of *Gott und der Mensch* (God and Man), which bears the special title: 'Body and Soul,' and contains the 'Outlines of Human Psychology,' while the first-named work presents the outlines of a philosophy of nature. Both of these works, in which Ulrici aims to construct a philosophy of idealism on a realistic basis, were preceded by a sort of programme in the work: *Glauben und Wissen, Speculation und exacte Wissenschaft* (Faith and Knowledge, Speculation and Exact Science), in which the author seeks to contribute to the reconciliation of religion, philosophy, and experimental natural science. With this end in view, Ulrici directs attention to the fact that very many of the affirmations not merely of religion, but also of philosophy and of all the sciences, cannot be called subjects of knowledge, but only of (it may be scientific) belief, since the unconditional necessity of these affirmations, or the inconceivability of their contraries, cannot be demonstrated. Farther on, scientific belief is distinguished from mere subjective opinion and from personal conviction and religious faith, with the result that the first of the three latter depends, when pros and cons balance each other, upon our mere wishes, that the second results from the demands of one side of our personality, and the third from the demands of our whole, and especially of our ethical personality, while scientific belief rests upon an objective preponderance of reasons in favor of belief. As regards, now, the special contents of *Gott und die Natur*, Ulrici himself remarks that the title should properly run thus: *Natur und Gott* (Nature and God), since the work sets out from the results of modern natural science, and aims to show that God is the creative author of nature and that the assumption of his existence is absolutely necessary to natural science. In attempting to prove this, Ulrici introduces, in the chapters relating to the various physical sciences, the coryphæi of these sciences in their own language, and then goes on to show that their doctrines are very largely made up of undemonstrated hypotheses, which may be turned to the account as well of a theistic as of an anti-religious theory. Most of the chapters in the first and second sections, in which physical ontology and cosmology are treated of, end therefore rather skeptically. The third section shows how the fundamental assumptions of modern physics, namely, atoms and forces, presuppose the existence of an author of these atoms and forces. The fourth presents the existence of God as the necessary pre-supposition of all natural science, on the ground that all our knowledge, including, therefore, our knowledge of nature, rests on the operation of our distinguishing faculty, but that this operation itself consists only in a repetition and recognition of distinctions already made and existing and which presuppose the original creative, distinguishing power of God. The same conclusion, it is shown, results from the consideration that human freedom is the condition of natural science, whose existence depends on the free, conscious action of man, while freedom, so far from conflicting with divine omnipotence, the rather presupposes it. Finally, Ulrici points out that there are ethical categories (categories of "order") underlying natural science, and that through them science points back to the Creator, through whom nature is made the scene of the operation and realization of ethical ideas. The fifth section contains a speculative examination of the idea of God and of his relation to nature and man; here the idea of God and the notion of creation are at first designated as the auxiliary and boundary conceptions of human thought and cognition, in regard to which no exact knowledge, but only scientific faith is possible, just as, in natural science, is the case with reference to the conception of atoms, of infinite divisibility, etc. It only remains possible for us, therefore, to interpret these conceptions after the analogy of human relations, and so we are brought from the notion of our own conditional productive activity, which depends on the co-operation of agencies other than our own, to the idea of unconditioned, spontaneous production, as it is involved in the conception of creation. Creation begins with the original thought of the world, the product of the (absolute) distinguishing activity of God, and is continued in that second *moment* or part of the divine creative act, by which God distinguishes the manifold contents of the world from each other. By the first *moment* of the act of creation the world is posited (posed), by the second it is disposed; by the former it is made possible, by the latter, real. The non-eternity of the world, it is argued, does not conflict with the eternity of the act of creating it. The application of the various logical and ethical categories to the distinction between God and the world gives to the conception of God its definiteness and clearness; while the world is in space, space is in God, etc.; God is absolute causality, absolute goodness, love, etc. In like manner, the results of scientific, physical investigation up to the present time furnish to hand the data for explaining the transitions from lower forms of existence to higher ones, from the inorganic to the organic, from this to the psychical and spiritual, without the hypothesis of a creative, and only by reference to the disposing agency of God, and they enable us to perceive that the community of man's life with the life of God, so far as this is attainable, is the end of creation. The foundation of religion, or of that feeling at once of dependence and of freedom, which is evoked in man by the operation of God upon him, is the last point which is discussed, so that 'the treatise ends there, where ethics, religious philosophy, and the philosophy of history begin their work.'

"With precisely the same words, because from another point of view it seeks the same result, does Ulrici end his work entitled *Gott und der Mensch*. As his philosophy of nature exhibits him especially in the attitude of an opponent of anti-religious physics, so in his psychology he comes forward as an enemy of materialism. 'To demonstrate on the basis of firmly established facts that to the soul, in contradistinction from the body, to spirit, in contradistinction from nature, not simply independent existence but also the supremacy belongs, both of right and in fact,' this, in his own words, is the aim of his book. To this end he discusses in the First, or Physiological Part, first the conceptions of matter and force, and arrives in this connection at the result, that modern physical science justifies the theory, that whatever exists is a centre of forces, which are held together by a uniting force, identical with the force of resistance. He then passes on to the conception of organized existence, for the explanation of which latter, as Ulrici avers, Liebig and others rightly assume the existence of a special force, which constructs the primitive organism, the cell, and forms of numerous cells a structure which is an end in itself and continues to exist until it has passed through the series of stages naturally belonging to its development. The human body is then more especially considered, the points in which it differs from the bodies of brutes are discussed, the insufficiency of all purely materialistic explanations of sensation, consciousness, etc., is demonstrated, and the confession of the most thoughtful physiologists—who, were it in any way possible, would gladly adopt the hypotheses of materialism—is accepted, that, in order to explain psychical phenomena, an unknown something must be posited in addition to the physiological processes which accompany such phenomena. The nervous system and the soul form the subject of a new section, in which the view is developed, that the soul must be conceived as a sort of fluid, similar to the ether, only not, like the latter, consisting of atoms, but being absolutely continuous, and that this fluid extends out from a given centre, permeating the whole atomic structure of

the body, operating instinctively and in co-operation with the vital force (if indeed it is not identical with this force) as a morphological agent, and, where it rises to the state of distinguishing consciousness, producing the peculiar phenomena of psychical life. A careful consideration of the organs of sensation and of their functions, in the light of the most recent investigations of Weber, Volkmann, Fechner, Helmholz, and others, forms the fourth and last section of the Physiological Part. At the end of this section the feeling of existence [as determined by the sum of those sensations which are too indistinct to be separately perceived, the '*Gemeingefühl*.'—*Tr.*], mood, propensity, and instinct are discussed, and then all those considerations, taken from the results of physiological investigation, are again brought together, which go to prove the existence and operation of specifically psychical forces, or the existence of the soul. In the Second, Psychological Part, consciousness is affirmed to constitute the starting-point and centre of psychology, and the origin of consciousness is investigated. This origin, as in Ulrici's earlier works, is here found in the distinguishing activity of the soul. This activity is then more precisely defined as an act by which the soul not only distinguishes itself from what is not itself and from its own actions, functions, etc., but also distinguishes the latter from each other [*sich-in-sich-unterscheidet*], thus producing consciousness; the plant, of which it cannot be denied that it exercises a distinguishing activity [it distinguishes between what is necessary for its organic growth, and what is not.—*Tr.*], and which therefore has perhaps sensation, does not rise to this degree of self-discrimination. Ulrici treats next of the conscious soul in its relation to its body and to other bodies, and answers the question, how the soul becomes conscious of its bodily environment. He then discusses the phenomena of waking, sleeping, dreams, somnambulism, mental aberration, temperament, the various ages of life, sex, race, and nationality, and concludes, finally, that, while soul and body act constantly upon each other, yet the soul is not the weaker, but rather the predominant factor. In the third section of this Part, the conscious soul is considered in its relation to itself and particularly in relation to its feelings, ideas, and propensities, among which latter are distinguished the (pure) sensuous propensities, propensities which act in the direction of feeling, and propensities of the representative faculty. The freedom of the will and the effort to realize this freedom in action exhibit the highest potency or function of propensity, between which and the highest function of representative consciousness or the understanding there exists a relation of mutual dependence. In the fourth section, which relates to the conscious soul in its relations to other souls, the naturally social propensities and feelings, the ethical feelings, ideas, and tendencies, and finally the education and culture of man are considered, including, especially, the self-education of the will, since the essence of human personality depends on and is determined by the will. This essence or substance of personality is discussed in the fifth and last section, which treats of the soul in its relation to God. The mutual relation of the ethical and religious feelings is here very fully discussed, the ground being taken that, although not identical, they yet belong together, just as do God's metaphysical nature and his ethical nature, and that therefore they supplement and complete, but can never contradict each other. In harmony with what had been said in *Gott und die Natur*, false views concerning the origin of the idea of God are here also confuted, the proper basis of that idea being found in a religious feeling, implanted in man by God, and in which the sense of dependence is combined with the sense of the dignity of man. By distinguishing between the perception, in feeling, of God's existence and the substance of our other perceptions, we arrive at our religious ideas. These are various, while the religious feeling is only one, though, indeed, at first so delicate and weak that it can at a

very early age be cultivated and strengthened or obscured and checked. Hence the differences, in this respect, which are observed even among children."—*Tr.*]

Joh. Ulrich Wirth. *Theorie des Somnambulismus oder des thierischen Magnetismus*, Leipsic and Stuttgard, 1836; *System der speculativen Ethik* (Vol. I.: Pure Ethics; Vol. II.: Concrete Ethics), Heilbronn, 1841–42; *Die speculative Idee Gottes und die damit zusammenhängenden Probleme der Philosophie*, Stuttgard and Tübingen, 1845; *Philosophische Studien*, 1851. [*Philosophische Studien* was the name given by Wirth to a philosophical journal, which he founded in the year 1851, but which he soon discontinued. Wirth had previously contributed extensively to Fichte and Ulrici's *Zeitschr. für Philosophie* and he became subsequently (1852), what he still remains, a joint editor of the latter periodical. Wirth is a clergyman, residing at Winnenden, in Würtemberg. His philosophical writings have related chiefly to ethics and speculative theology. His method in the latter is dialectical, in more or less free imitation of the Neo-Platonists, of Schelling, and of Hegel. He terms his philosophy ideal-realism.—*Tr.*]

Christian Hermann Weisse (Aug. 10, 1801–Sept. 19, 1866; an appreciation of his character and writings, by Rud. Seydel, was published at Leipsic in 1866). *Ueber den gegenwärtigen Zustand der philos. Wissenschaften*, Leips., 1829; *System der Ästhetik als Wissenschaft von der Idee des Schönen*, Leips., 1830; *Ueber das Verhältniss des Publicums zur Philosophie in dem Zeitpunkt von Hegel's Abscheiden, nebst einer kurzen Darstellung meiner Ansicht des Systems der Philosophie*, Leips., 1832; *Die Idee der Gottheit*, Dresden, 1833; *Grundzüge der Metaphysik*, Hamburg, 1835; *Evangelische Geschichte*, Leips., 1835, and other works relating to biblical and ecclesiastical theology and to religious philosophy; in particular: *Ueber die Zukunft der evangelischen Kirche*, 2d ed., Leips., 1849; *Ueber die Christologie Luthers*, Leips., 1852; *Philos. Dogmatik oder Philosophie des Christenthums*, 3 vols., Leips., 1855, 1860, 1862. For the appreciation of Weisse's attitude with reference to contemporary philosophers, characteristic data are contained in the following academical discourse: *In welchem Sinne die deutsche Philosophie jetzt wieder an Kant sich zu orientiren hat?* Leips., 1847. Minor works on æsthetics or of æsthetic criticism (on Schiller, Goethe, etc.) have been collected and edited by Rud. Seydel, Leips., 1867. *Weisse's Psychologie und Unsterblichkeitslehre*, edited by Seydel, Leips., 1869; *Chr. H. Weisse's Syst. der Ästhetik nach dem Collegienhefte letzter Hand*, ed. by Rud. Seydel, Leips., 1872 (71). Seydel gives a list of all the works and essays of Weisse in the *Zeitschr. für Philos.*, Vol. 55, 1869. [Weisse was one of the more eminent of those men who, beginning their philosophical career at the time when Hegel's influence was greatest, announced their adhesion, with more or less numerous qualifications, to Hegel's system, but who subsequently, while retaining much of Hegel's method, assumed with reference to him an independent, if not antagonistic attitude. In particular, Weisse censured Hegel for not including in his logic an account of time and space, maintaining that these were as necessary to thought as the other so-called logical categories. He further charged him with having elevated logic to a rank superior to that of the other philosophical disciplines, and so having taught a doctrine which might be termed logical pantheism. Weisse, on the other hand, held fast to the notion of a personal God and of moral freedom. His efforts were especially directed to the solution of the practical religious question, the question of the true interpretation of Christianity and the proper basis for a national church. In his labors to this end he was influenced in part by the precedent of such German mystics as Jacob Boehme. His exegesis of the New Testament history was rationalistic, denying the miraculous and seeking, for the cardinal doctrines, a meaning which should satisfy as nearly as possible thinking men of all views. Cf. Erdmann, *Grundriss der Gesch. der Philos.*, Vol. II., §§ 332, 2, and 346, 10.—*Tr.*]

Heinr. Moritz Chalybäus (1792–1862). *Wissenschaftslehre*, Leipsic, 1846; *System der speculativen Ethik*, Leipsic, 1850; *Philosophie und Christenthum*, Kiel, 1853; *Fundamentalphilosophie*, Kiel, 1861. [The *Historical Survey of Speculative Philosophy from Kant to Hegel*, translated from the German of Chalybäus, has been mentioned above, *ad* § 120.—*Tr.*]

F. Harms. *Prolegomena zur Philosophie*, Brunswick, 1852; *Abh. zur systematischen Philosophie*, Berlin, 1868. The first volume of Karsten's "Universal Encyclopædia of Physics" (Vol. I., Leipsic, 1856) contains a philosophical introduction by Harms.

Karl Philipp Fischer. *Die Freiheit des menschlichen Willens im Fortschritt ihrer Momente*, Tübingen, 1833; *Die Wiss. der Metaphysik im Grundriss*, Stuttgard, 1834; *Die Idee der Gottheit*, Tübingen, 1839; *Speculative Charakteristik und Kritik des Hegel'schen Systems*, Erlangen, 1845; *Grundzüge des Systems der Philosophie oder Encyclopädie der philos. Wiss.*, Erlangen and Francfort-on-the-Main, 1847–55; *Die Unwahrheit des Sensualismus und Materialismus, mit besonderer Rücksicht auf die Schriften von Feuerbach, Vogt und Moleschott*, Erlangen, 1853.

Jakob Sengler. *Die Idee Gottes*, Heidelberg, 1845–47; *Erkenntnisslehre*, Heidelb., 1858.

Leop. Schmid. *Grundriss der Einleitung in die Philosophie*, Giessen, 1860; *Das Gesetz der Persönlichkeit*, Giessen, 1862.

F. X. Schmid (of Schwarzenburg). *Entwurf eines Systems der Philos. auf pneumatologischer Grundlage*, 3 parts (Theory of Cognition, Metaphysics, Ethics), Vienna, 1863–68.

J. W. Hanne. *Die Idee der absoluten Persönlichkeit oder Gott und sein Verhältniss zur Welt, insonderheit zur menschlichen Persönlichkeit*, Hannover, 1861; *Geist des Christenthums*, Elberfeld, 1867.

Maxim. Perty. *Anthropologische Vorträge*, Leipsic and Heidelberg, 1863; *Die Natur im Lichte philos. Anschauung*, *ibid.*, 1869; *Blicke in das verborgene Leben der Menschengeister*, *ibid.*, 1869.

K. Sederholm. *Der geistige Kosmos*, Leipsic, 1859; *Der Urstoff und der Weltäther*, Moscow, 1864; *Zur Religionsphilos.* (from the *Zeitschr. für Philos.*), Leips., 1865.

Conrad Hermann. *Philos. der Geschichte*, Leipsic, 1870. Hermann seeks to discover that "new, universal truth of philosophy which lies next above" the Hegelian system.

Rud. Seydel. *Logik oder Wissenschaft vom Wissen*, Leipsic, 1866. Seydel follows more especially Chr. H. Weisse and Schelling.

Albert Peip. *Die Wissenschaft und das gesch. Christenthum*, Berlin, 1853; *Der Beweis des Christenthums*, Berlin, 1856; *Christosophie*, Berlin, 1858; *Jacob Boehme*, Leipsic, 1860; *Die Gesch. der Philosophie als Einleitungsvoriess., eine Antrittsvorlesung*, Göttingen, 1863; *Zum Beweis des Glaubens*, Gütersloh, 1867.

Joh. Huber. *Studien* (studies on the religious movement of "enlightenment" in the 18th century, on Christology, on criminal statistics, and on the freedom of the will), Munich, 1867; *Kleine Schriften* (on Lamennais, Jac. Böhme, Spinoza, Communism and Socialism, the Night Sides of London, German Student-Life), Leipsic, 1871. Cf. above, Vol. I., pp. 263 and 359.

From the Catholic quarter Anton Günther (1785–1865) opposed to the Schelling-Hegelian "pantheism" a doctrine of [Cartesian] "dualism," which, however, was condemned by the ecclesiastical authorities. Günther admits the principle of development, enounced by Schelling and Hegel, as applied to "nature," in which he includes the "soul" as subject of sensation and representative consciousness and framer of conceptions. But he distinguishes from this "soul" the "spirit," which he elevates above it as an independent being, separable from the body; and in like manner, and in opposition to pantheism, he teaches that God is distinct from and superior to the world, maintaining that the world was created by God, not by the way of emanation, but by "contraposition."

Anton Günther. *Vorschule zur speculativen Theologie des positiven Christenthums* (Vienna, 1828, 2d ed., 1846), *Thomas a Scrupulis, zur Transfiguration der Persönlichkeitspantheisten neuester Zeit* (Vienna, 1835), etc. The review entitled *Lydia* (Vienna, 1849–54), edited by Günther and J. E. Veith, was an organ of the Güntherian philosophy. Among those who took part in the discussions concerning Günther's philosophy may be named J. Oischinger (*Die Günter'sche Philosophie*, Schaffhausen, 1852), F. J. Clemens (*Die Günter'sche Philos. und die kath. Kirche*, Cologne, 1853; in reply to this work P. Knoodt wrote *Günther und Clemens*, Vienna, 1853), and Michelis (*Kritik der Günter'schen Philosophie*, Paderborn, 1864). In the year 1857, and as the result of proceedings which had been carried on during a number of years, various theological and psychological theses of Günther's—who "honorably submitted" ("*laudabiliter se subjecit*") to this decision—were condemned at Rome as erroneous. Such previously had been the fate also of the moderate philosophical and theological rationalism of Hermes [Georg Hermes, 1775–1831, Professor at Münster and afterwards at Bonn.—*Tr.*] and of his followers.

Among the philosophers upon whose views Schleiermacher exerted a considerable influence, belong Christian Aug. Brandis (Feb. 13, 1790—July 24, 1867; cf. on him Trendelenburg, *Vortrag am Leibnitztage*, 1868, in the Transact. of the Berl. Acad., also published separately, Berlin, 1868) and Heinrich Ritter (died in 1869), who were especially eminent as students and writers of the history of philosophy. Of those who were influenced by Schleiermacher and partly also by Hegel, may be named Braniss (who owes very much also to Steffens), Romang, Vorländer, Helfferich, George, Richard Rothe, the speculative theologian, and others.

The works of Brandis and Ritter relative to the history of philosophy have been already named (Vol. I. pp. 10, 11, 261, and Vol. II. p. 137). Among the other works of Ritter may be named the following: *Ueber die Bildung der Philosophen durch die Gesch. der Philos.*, Berlin, 1817; *Vorlesungen zur Einleitung in die Logik*, *ibid.*, 1823; *Abriss der philosophischen Logik*, *ibid.*, 1824, 2d ed., 1829; *Die Halbkantianer und der Pantheismus*, Berlin, 1827; *System der Logik und Metaphysik*, Göttingen, 1856; *Encyclopädie der philos. Wissenschaften*, 3 vols., Göttingen, 1862–64; *Ueber die Unsterblichkeit*, 2d ed., Leipsic, 1866; *Ernest Renan über die Naturwissenschaften und die Geschichte mit den Randbemerkungen eines deutschen Philosophen*, Gotha, 1865; *Philosophische Paradoxa*, Leipsic, 1867; *Ueber das Böse und seine Folgen*, ed. by D. Peipers, Gotha, 1869.

Julius Braniss. *Die Logik in ihrem Verhältniss zur Philosophie, geschichtlich betrachtet*, Berlin, 1823, *Grundriss der Logik*, *ibid.*, 1830; *Ueber Schleiermachers Glaubenslehre*, Berlin, 1824; *System der Metaphysik*, Breslau, 1834; *Die wissenschaftliche Aufgabe der Gegenwart*, Breslau, 1848; *Ueber die Würde der Philosophie und ihr Recht im Leben der Zeit* (on the occasion of B.'s induction into the office of rector), Berlin, 1854; *Ueber atomistische und dynamische Naturauffassung*, in the *Abh. der Hist.-phil. Gesellschaft zu Breslau*, Vol. I., 1857. Braniss' History of Philosophy has been mentioned above, Vol. I., p. 11. The work by Jos. Jäkel, entitled *Der Satz des zureichenden Grundes* (Breslau, 1868), seems to give evidence of an influence exerted on the author by Braniss' speculation. *De not. Philos. Christ.*, Bresl., 1825.

J. P. Romang. *Willensfreiheit und Determinismus*, Berne, 1835; *System der natürlichen Theologie*, Zurich, 1841; *Der neueste Pantheismus*, Berne, 1848.

Vorländer. *Grundlinien einer organischen Wissenschaft der menschlichen Seele*, Berlin, 1841; *Erkenntnisslehre*, 1847; *Geschichte der neuern Moralphilosophie*, Marburg, 1855 (see above, p. 2).

Adolf Helfferich. *Die Metaphysik als Grundwissenschaft*, Hamburg, 1846; *Der Organismus der Wissenschaft und die Philosophie der Geschichte*, Leipsic, 1856; *Die Schule des Willens*, Berlin, 1858.

Leop. George. *Mythus und Sage*, Berlin, 1837; *Ueber Princip und Methode der Philosophie, mit Rücksicht auf Hegel und Schleiermacher*, Berlin, 1842; *System der Metaphysik*, Berlin, 1844; *Die fünf Sinne*, Berlin, 1846; *Lehrbuch der Psychologie*, Berlin, 1854; *Die Logik als Wissenschaftslehre*, Berlin, 1868. [Leopold George was born in Berlin, in the year 1811. At the University in his native city he taught for a considerable time as a *Privatdocent*. He is now a Professor at Greifswald. In his earlier metaphysical works he developed an enneadic system of dialectical development, in which it was claimed that the systems of Schleiermacher and Hegel received their natural complement or final development. In his last work, also, the "Logic as Science of Knowledge," he announces it as his aim to "reconcile the opposite tendencies of Hegel and Schleiermacher," by showing that "the ideal and the real principles are equally justified in philosophy, thus vindicating for empirical, as well as for rational knowledge, its rightful place in the structure of science." The logical and metaphysical stand-point of George bears a general resemblance to that of Trendelenburg, for whom he expresses admiration. Both, namely, assume the reality and the, at least partially, known nature of thought and being, and seek for a third factor or element at once superior and common to both, by means of which their agreement may be explained. In opposition to this view Ulrici urges that the beginning must be made with thought alone, the nature of which must be investigated in order to the ascertainment of those fundamental qualifications and necessities of thought, which conduct us to the distinction between thought and being and on which our notions of certainty and evidence are founded. See Ulrici, *Zur logischen Frage* (with reference to the works of A. Trendelenburg, L. George, Kuno Fischer, and F. Ueberweg), in the *Zeitschrift für Philos.*, Vol. 55, Nos. 1, 2, Halle, 1869.—*Tr.*]

Richard Rothe (1799–1867). *Die Anfänge der christlichen Kirche und ihrer Verfassung*, Wittenberg, 1837; *Theologische Ethik*, *ibid.*, 1845–48; 2d revised ed., Vol. I., 1867 seq. [Cf. S. Osgood, *A Good Man's Legacy: a Sermon on the death of Dr. R. Rothe*, New York: S. W. Wells, 1868. In the first work mentioned above, Rothe expressed the idea that it is now no longer the church, but rather the State, which responds to the need of the Christian life for outward expression. In the division of ethics into its parts Rothe agrees with Schleiermacher. See Erdmann.—*Tr.*]

Carl Schwartz, author of a work *Zur Geschichte der neuesten Theologie* (3d ed., Leipsic, 1864), as also of the address on Schleiermacher, cited above, *ad* § 132, and of other works, also (among others) gives evidence in his writings of an essential influence exerted upon him by Schleiermacher. Next to Hegel it is especially Schleiermacher who has influenced I. H. Fichte, C. H. Weisse, and others (see above). So, too, Felix Eberty agrees mostly with Schleiermacher, in his *Versuche auf dem Gebiete des Naturrechts* (Leipsic, 1852) and *Ueber Gut und Böse* (two lectures, Berlin, 1855). How much Aug. Boeckh owed to the stimulus of Schleiermacher, his teacher and friend, is shown by Bratuscheck in the article on "Boeckh as a Platonist," in the *Philos. Monatsh.*, I., 1868, p. 257 seq.

Among the followers of Schopenhauer, Julius Frauenstädt may be termed the most independent and the most eminent. Originally holding a modified Hegelianism, he passed over from this doctrine to the doctrine of Schopenhauer.

Frauenstädt. *Die Freiheit des Menschen und die Persönlichkeit Gottes* (together with a letter from Dr. Gabler to the author), Berlin, 1838; *Die Menschwerdung Gottes nach ihrer Möglichkeit, Wirklichkeit und Nothwendigkeit* (with reference to Strauss, Schaller, and Göschel), *ibid.*, 1839; *Studien und Kritiken zur Theologie und Philosophie*, *ib.*, 1840; *Ueber das wahre Verhältniss der Vernunft zur Offenbarung*, Darmstadt, 1848; *Ästhetische Fragen*, Dessau, 1853; Frauenstädt's Letters on Schopenhauer's Philosophy, as also

works by E. O. Lindner, Asher, and others, have been mentioned above in the literature to § 131. Since his conversion to Schopenhauer's philosophy, Frauenstädt has written on Natural Science in its Influence on Poetry, Religion, Morals, and Philosophy (Leipsic, 1858), on Materialism (*ibid.*, 1856), Letters on Natural Religion (Leipsic, 1858), Ethical Studies (*Das sittliche Leben, ethische Studien*, Leipsic, 1866), and *Blicke in die intel., phys., und moral. Welt*, Leips., 1869, beside numerous articles in various periodicals. Hippolyt Tauschinski's *Die Botschaft der Wahrheit, der Freiheit und der Liebe* (Vienna, 1868) is based principally on Schopenhauer's doctrine. The philosophy of E. v. Hartmann (see below), also, is not far removed in its general character from that of Schopenhauer. Less removed from it is the doctrine set forth by Jul. Bahnsen, in *Beiträge zur Charakterologie, mit besonderer Berücksichtigung pädagogischer Fragen* (2 vols., Leips., 1867), *Zum Verhältniss zwischen Wille und Motiv, eine metaphysische Voruntersuchung zur Charakterologie* (Stolp and Lauenburg, 1870), and *Zur Philos. der Gesch., eine kritische Besprechung d. Hegel. Hartmann'schen Evolutionismus aus Schopenhauer'schen Principien* (Berl., 1871). The doctrines of Kant and Schopenhauer furnish the basis for J. C. Becker's *Abh. aus dem Grenzgebiet der Math. und Philos.*, Zurich, 1870.

Herbart, who occupied at first a very isolated position among philosophical thinkers, found subsequently quite a numerous circle of scholars. The principal authors and works of the Herbartian school are (according to the above-cited list by Allihn, which is supplemented by the bibliographical notices in the later numbers of the *Zeitschrift für exacte Philos.*) the following:—

F. H. T. Allihn. *Antibarbarus logicus*, Halle, 1850; 2d ed. of the first part, entitled an Introduction to General Formal Logic, Halle, 1853 (anonymously); *Der verderbliche Einfluss der Hegel'schen Philosophie*, Leips., 1852; *Die Umkehr der Wissenschaft in Preussen, mit besonderer Beziehung auf Stahl und auf die Erwiderungen seiner Gegner Braniss und Erdmann*, Berlin, 1855; *Die Grundlehren der allgemeinen Ethik, nebst einer Abhandlung über das Verhältniss der Religion zur Moral*, Leipsic, 1861.

Ludw. Ballauf. Author of various essays, mostly on psychological and pedagogical themes, in the *Oldenburger Schulblatt*, the *Pädagog. Revue* and the *Pädagog. Archiv*, and in the *Zeitschr. für exacte Philosophie*. In Vol. IV., No. 1, of the last-mentioned periodical, pp. 63-92, an article by Ballauf is published, entitled: "From Beneke to Herbart," in which the doctrines of these philosophers are compared from the Herbartian stand-point. The theoretical assumption underlying this comparison is, that it is only through the discovery of contradictions involved in experience that a motive is given for the completing, supplementing of experience and the correction of our original beliefs. The contradictions which may thus be discovered are, as Ballauf urges, those which Herbart, in partial agreement with the Eleatics and others, claimed to have found in certain conceptions belonging to experience. Ballauf's criticisms of Beneke's eudæmonism, however, rest in part on the unnatural isolation in which he regards the elements of our final ethical judgments, and, for the rest, on consequences erroneously drawn by him from Beneke's principle, and especially on an insufficient estimate of the worth which, according to this principle, must belong to an assured legal order.

Ed. Bobrik. *De ideis innatis sive puris pro principiis habitis*, Königsberg, 1829; *Freie Vorträge über Æsthetik*, Zurich, 1834; *Neues praktisches System der Logik*, Vol. I., Part I.: *Ursprüngliche Ideenlehre*, Zurich, 1838 (unfinished).

Herm. Bonitz, whose Platonic and Aristotelian studies have been mentioned above (in Vol. I., §§ 40, 46, *et al.*), may here be mentioned as co-editor (until 1867) of the *Zeitschr. für österreich. Gymnasien*, and as the author of an essay on Philosophical Propædeutics, in the *Neue Jena. Allg. Literaturzeitung*, 1846, No. 66.

H. G. Brzoska. *Ueber die Nothwendigkeit pädagogischer Seminare auf der Universität und ihre zweckmässige Einrichtung*, Leipsic, 1833. Brzoska was also the editor of the *Centralbibliothek für Litteratur, Statistik und Geschichte der Pädagogik und des Unterrichts*.

Carl Seb. Cornelius. *Die Lehre von der Elektricität und dem Magnetismus*, Leipsic, 1855; *Ueber die Bildung der Materie aus einfachen Elementen*, Leipsic, 1856; *Theorie des Sehens und räumlichen Vorstellens*, Halle, 1861. Additions to the latter, *ibid.*, 1864; *Grundzüge einer Molecularphysik*, Halle, 1866 (according to Cornelius, the relation of the "reals," which are united with each other in one molecular mass, to each other is not, as asserted by Herbart, direct, but dependent on the presence of spheres of ether); *Ueber die Bedeutung des Causalprincips in der Naturwissenschaft*, Halle, 1867; *Ueber die Entstehung der Welt, mit bes. Rücksicht auf die Frage, ob unseren Sonnensystem ein zeitl. Anfang zugeschrieben werden muss* (a prize essay), Halle, 1870; *Ueber die Wechselwirkung zwischen Leib und Seele*, Halle, 1871. The *Zeitschr. für exacte Philos.* contains numerous essays by Cornelius.

Franz Cupr. *Sein oder Nichtsein der deutschen Philosophie in Böhmen*, Prague, 1848; *Grundriss der empirischen Psychologie*, Prague, 1852.

M. A. Drbal. *Ueber die Ursachen des Verfalls der Philosophie in Deutschland*, Prague, 1856; *Giebt es einen speculativen Syllogismus?* (Linz Gymnasial-Progr., 1857); *Ueber das Erhabene* (Linz Gymnasial-Prog., 1858). *Ueber die Natur der Sinne* (popular scientific discourses), Linz, 1860. *Lehrbuch der propädeutischen Logik*, Vienna, 1865; 2d ed., 1868; *Empirische Psychologie*, Vienna, 1868.

Mor. Wilh. Drobisch. Review of Herbart's Psychology as Science, in the November number of the *Leipziger Litteraturzeitung*, 1828; review of Herbart's Metaphysics, in the *Jena. Litteraturzeitung* for August, 1830; *Philologie und Mathematik als Gegenstände des Gymnasialunterrichts betrachtet, mit besonderer Beziehung auf Sachsens Gelehrtenschulen*, Leipsic, 1832; *Ueber mathematische Didaktik*, in the *Leipziger Litteraturzeitung*, 1832, Nr. 237; *Beiträge zur Orientirung über Herbart's System der Philosophie*, Leipsic, 1834; *Neue Darstellung der Logik nach ihren einfachsten Verhältnissen, nebst einem logisch-mathematischen Anhange*, Leipsic, 1836; second, completely revised edition, 1851; third edition, rewritten, 1863; *Quæstionum mathematico-psychologicarum spec. I.–V.*, Leipsic, 1836-39; *Grundlehren der Religionsphilosophie, ibid.*, 1840; *Empirische Psychologie nach naturwissenschaftlicher Methode, ibid.*, 1842; *Ueber die mathemat. Bestimmung der musikalischen Intervalle*, in the *Abh. der fürstl. Jablonowski'schen Gesellschaft*, Leipsic, 1846; *Disquisitio mathematico-psychologica de perfectis notionum complexibus, ibid.*, 1846; *Erste Grundlinien der mathematischen Psychologie, ibid.*, 1850; articles in Fichte's *Zeitschrift für Philos.*, for the years 1844, '45, '52, '54, '55, '56, '57, '59, and several volumes of the *Zeitschrift für exacte Philos.* (which has been published since 1860); On the attitude of Schiller with reference to Kant's Ethics, a pamphlet reprinted from the Reports of the Royal Society of Sciences in Saxony, Leipsic, 1859; *De philosophia scientiæ naturali insita*, Leipsic, 1864; *Die moral. Statistik und die menschl. Willensfreiheit*, Leipsic, 1867. [Drobisch's Logic (*Neue Darstellung der Logik*) is viewed as one of the most perfect presentations of the subject-matter from the point of view of formal logic.—*Tr.*]

Friedr. Exner. *Ueber Nominalismus und Realismus*, Prague, 1842 (from the Transactions of the Bohemian Scientific Association); *Die Psychologie der Hegel'schen Schule*, Leipsic, 1843, Part II., *ibid.*, 1844; *Ueber Leibnitzens Universalwissenschaft*, Prague, 1843; *Ueber die Lehre von der Einheit des Denkens und Seins, ibid.*, 1848 (the last two writings from the Trans. of the Bohem. Scient. Assoc.). [Erdmann (*Grundr. d. Gesch. d. Philos.*, § 333, 4), after enumerating a number of the works of Drobisch, Griepenkerl, Röer, Strümpel, and Hartenstein, remarks: "While the authors of all these works, following the example of their master, attack the Hegelian method, and argue especially against the importance which in this method is ascribed to the element of contradiction—which, it is affirmed, Herbart teaches how to avoid, while Hegel 'takes pleasure in it'—Allihn, Exner, and in part Taute also, appear to see in such attacks almost their whole life-work. Through Exner's influence the Austrian *cathedræ* fell largely into the possession of Herbartians, among whom Zimmermann, Lott, Volkmann, and others have become distinguished."—*Tr.*]

O. Flügel. *Der Materialismus*, Leipsic, 1865; *Das Wunder und die Erkennbarkeit Gottes, ibid.*, 1869. Also, essays in the *Zeitschr. f. ex. Philos.*, among others a criticism of Lotze's theory of the connection of things, VIII., 1867, pp. 36-60.

Foss. *Die Idee des Rechts in Herbart's Ethik* (*Realschulprogr.*), Elbing, 1862.

Aug. Geyer. *Gesch. u. System der Rechtsphilosophie*, Insbruck, 1863; *Ueber die neueste Gestaltung des Völkerrechts* (an address), *ibid.*, 1866. Essays in the *Zeitschr. f. ex. Philos.*

F. E. Griepenkerl. *Lehrbuch der Æsthetik*, Brunswick, 1827; *Lehrbuch der Logik*, 2d ed., Helmstädt, 1831; *Briefe über Philosophie, und besonders über Herbarts Lehren*, Brunswick, 1832.

H. F. Haccius. *Kann der Pantheismus eine Reformation der Kirche bilden?* Hannover, 1851.

Gust. Hartenstein. *De methodo philosophiæ, log. legibus astringenda, finibus non terminanda*, Leipsic, 1835; *Die Probleme und Grundlehren der allg. Metaphysik, ibid.*, 1836; *De ethices a Schleiermachero propositæ fundamento, ibid.*, 1837; *Ueber die neuesten Darstellungen und Beurtheilungen der Herbart'schen Philosophie, ibid.*, 1838; *De psychologiæ vulgaris origine ab Aristotele repetenda, ibid.*, 1840; *Die Grundbegriffe der ethischen Wissenschaften, ibid.*, 1844; *De materiæ apud Leibnitium notione et ad monadas relatione, ibid.*, 1846; *Ueber die Bedeutung der megarischen Schule für die Gesch. der metaphysischen Probleme, ibid.*, 1847 (from the Reports of the Transactions of the Royal Scientific Association of Saxony); *Darstellung der Rechtsphilosophie des Grotius* (from Vol. I. of the Transactions of the *Phil.-hist. Classe* of the R. Sc. Assoc. of Saxony), Leipsic, 1850; *De notionum juris et civitatis, quas Bened. Spinoza et Thom. Hobbes proponunt, similitudine et dissimilitudine, ibid.*, 1856; *Ueber den wiss. Werth der aristotelischen Ethik* (from the Reports of the *Ph.-hist. Cl.* of the R. Sc. Ass. of Sax.), *ibid.*, 1859; *Ueber Locke's und Leibnitz's Erkenntnisslehre, ibid.*, 1861; *Historisch-philosophische Abhandlungen, ibid.*, 1870 (containing eight of the minor works above cited, and also an essay on the Relation of the Monads to the Material World, first published in 1869).

Carl Ludw. Hendewerk. *Principia ethica a priori reperta, in libris sacris V. et N. T. obvia*, Königsberg, 1837; *Herbart u. die Bibel*, *ibid.*, 1858; *Der Idealismus des Christenthums*, *ibid.*, 1862.

Herm. v. Kayserlingk. *Vergleich zwischen Fichte's System und dem System Herbart's*, Königsberg, 1817. Subsequently Kayserlingk abandoned the Herbartian doctrine. He wrote an autobiography with the title: *Denkwürdigkeiten eines Philosophen, oder Erinnerungen und Begegnisse aus meinem Leben*, Altona, 1839.

Herm. Kern. *De Leibnitii scientia generali commentatio*, Progr. of the R. Pädag. in Halle, 1847; *Ein Beitrag zur Rechtfertigung der Herbart'schen Metaphysik, Einladungsschr. zur Stiftungsfeier des herzogl. Gymn. in Coburg*, 1849; *Pädagogische Blätter*, Coburg, 1853–56.

Franz L. Kvet. *Leibnitzens Logik, nach den Quellen dargestellt*, Prague, 1857; *Leibnitz und Comenius* (from the Transactions of the Imperial Bohemian Scient. Assoc.), Prague, 1857.

M. Lazarus. *Das Leben der Seele, in Monographien über seine Erscheinungen und Gesetze*, Berlin, 1856–57; *Ueber den Ursprung der Sitten*, an address delivered at Berlin in 1860, 2d ed., 1867; *Zur Lehre von den Sinnestäuschungen*, Berlin, 1867. Since 1859 Lazarus and Steinthal have published the *Zeitschrift für Völkerpsychologie und Sprachwissenschaft*.

Gust. Adolf Lindner. *Lehrbuch der empir. Psychologie nach genetischer Methode*, Cilli, 1858, 3d ed., Vienna, 1872 (71); *Lehrbuch der formalen Logik nach genetischer Methode*, Gratz, 1861, 2d ed., Vienna, 1867; *Einleitung in das Studium der Philosophie*, Vienna, 1866; *Lehrbuch der Psychologie als inductiver Wissenschaft*, 2d ed., Vienna, 1868; *Das Problem des Glücks, psycholog. Untersuchung über die menschliche Glückseligkeit*, Vienna, 1868; *Ideen zur Psychol. d. Gesellsch. als Grundl. der Socialwissenschaft*, *ibid.*, 1871(70).

Friedr. Lott. *Herbarti de animi immortalitate doctr.*, Gött., 1842; *Zur Logik* (reprinted from the *Gött. Stud.*), *ibid.*, 1845.

Carl Mager, originally an Hegelian, but afterwards a convert to Herbart's philosophy, founded the *Pädagogische Revue* (1840 seq.), which from 1849 to 1854 was edited by Scheibert, Langbein, and Kuhn, and from 1855 to 1858 by Langbein alone. Its place has been taken by the *Pädagog. Archiv*, Stettin, 1859 seq.

F. W. Miquel. *Beiträge eines mit der Herbart'schen Pädagogik befreundeten Schulmannes zur Lehre vom biographischen Geschichtsunterricht auf Gymnasien*, Aurich and Leer, 1847; *Beiträge zu einer pädag.-psychologischen Lehre vom Gedächtniss*, Hannover, 1850; *Wie wird die deutsche Volksschule national*, Lingen, 1851; also articles on pedagogical subjects in the *Pädagogische Blätter*, edited by Kern, for 1853 and 1854.

Jos. H. Nahlowsky. *Das Gefühlsleben*, Leipsic, 1862; *Das Duell, sein Widersinn und seine moral. Verwerflichkeit*, *ibid.*, 1864; *Die ethischen Ideen*, *ibid.*, 1865; *Grundzüge zur Lehre von der Gesellschaft und dem Staate*, *ibid.*, 1865; *Allgem. praktische Philosophie* (ethics), *pragmatisch bearbeitet*, *ib.*, 1870.

Ed. Olawsky. *Die Vorstellungen im Geiste des Menschen*, Berlin, 1868.

L. F. Ostermann. *Pädagog. Randzeichnungen*, Hannover, 1850.

Preiss. *Analyse der Gefühle*, Görz, 1854; *Analyse der Begehrungen*, *ibid.*, 1859.

Aug. Reiche. *De Kantii antinomiis quæ dicuntur theoreticis*, Gött., 1838.

G. L. W. Resl. *Die Bedeutung der Reihenproduction für die Bildung synthetischer Begriffe und ästhetischer Urtheile* (a "School-Programme"), Vienna, 1857. *Zur Psychol. der subj. Ueberzeugung* (*Programm*), Czernowitz, 1868.

H. H. E. Röer. *Ueber Herbart's Methode der Beziehungen*, Brunswick, 1833; *Das speculative Denken in seiner Fortbewegung zur Idee*, Berlin, 1837 (exhibits Röer's advance to Hegelianism).

Gust. Schilling. *Lehrbuch der Psychologie*, Leipsic, 1851; *Die verschiedenen Grundansichten über das Wesen des Geistes*, *ibid.*, 1863; *Beiträge zur Geschichte und Kritik des Materialismus*, *ibid.*, 1867.

H. Steinthal. *Grammatik, Logik und Psychologie*, Berlin, 1855; *Der Ursprung der Sprache*, 2d ed., Berlin, 1858; *Gesch. der Sprachwiss. bei den Griechen und Römern mit besonderer Rücksicht auf die Logik*, Berlin, 1863–64. *Abriss der Sprachwissenschaft* (Part I.: Language in General, Introduction to Psychology and the Science of Language), *ibid.*, 1871 [cf. review by W. D. Whitney, in the *North Am. Review*, April, 1872.—*Tr.*]. Since 1859, Steinthal has been engaged with Lazarus in the editorship of the above-mentioned magazine.

Stephan. *De justi notione quam proposuit Herb.* (*Diss. inaug.*), Gött., 1844; *Ueber Wissen und Glauben, skeptische Betrachtungen*, Hannover, 1846; *Ueber das Verhältniss des Naturrechts zur Ethik und zum positiven Recht*, Göttingen, 1854.

E. Stiedenroth. *Theorie des Wissens*, Göttingen, 1819; *Psychologie zur Erklärung der Seelenerscheinungen*, Berlin, 1824–25. (Half Herbartian.)

K. V. Stoy. *Encyclopädie, Methodologie und Litteratur der Pädagogik*, Leips., 1861 seq.; *Philos. Propädeutik*, *ibid.*, 1869–70 (I. Logic; II. Psychology); *Die Psychol. in gedrängter Darstellung*, *ib.*, 1871.

Ludw. Strümpell. *De methodo philosophica*, Königsberg, 1833; *Erläuterungen zu Herbart's Philosophie*, Gött., 1834; *Die Hauptpunkte der Herbart'schen Metaphysik kritisch beleuchtet*, Brunswick, 1840; *De summi boni notione qualem proposuit Schleiermacherus*, Dorpat, 1843; *Die Pädagogik der Philosophen Kant, Fichte, Herbart*, Brunswick, 1843; *Vorschule der Ethik*, Mitau, 1845; *Entwurf der Logik*, Mitau and Leipsic, 1846; *Die Universität und das Universitätsstudium*, Mitau, 1848; *Geschichte der griech. Philosophie, zur Uebersicht, Repetition und Orientirung*, First Division: "History of the Theoretical Philosophy of the Greeks," Leipsic, 1854; Second Division, Section I.: "History of the Practical Philos. of the Greeks before Aristotle," *ibid.*, 1861; *Der Vortrag der Logik und sein didaktischer Werth für die Universitätsstudien, mit besonderer Rücksicht auf die Naturwissenschaften* (from the *Päd. Revue*), Berlin, 1858; *Erziehungsfragen*, Leips., 1869; *Der Causalitätsbegriff und sein metaphys. Gebrauch in der Naturwissenschaft*, Leips., 1871.

G. F. Taute. *Die Religionsphilosophie vom Standpunkte der Philosophie Herbart's*, Part I.: "Religious Philos. from a Universal Point of View," Elbing, 1840; Part II.: "Philosophy of Christianity," Leipsic, 1852; *Die Wissenschaften und Universitätsstudien den Zeitbewegungen gegenüber* (an address), Königsberg, 1848; *Der Spinozismus als unendliches Revolutionsprincip und sein Gegensatz* (an address), *ibid.*, 1848; *Pädagogisches Gutachten über die Verhandlungen der Berliner Conferenz für höheres Schulwesen*, Königsberg, 1849.

G. Tepe. *Die praktischen Ideen nach Herbart*, in the Easter Progr. of the Emden Gymnasium, 1854, and as an independent opuscule, Leer and Emden, 1861. [Cf. also below, Appendix III., *ad* § 134.—*Tr.*]

C. A. Thilo. *Die Wissenschaftlichkeit der modernen specul. Theologie in ihren Principien beleuchtet*, Leipsic, 1851; *Die Stahl'sche Rechts- und Staatslehre in ihrer Unwissenschaftlichkeit dargethan*, in the *Krit. Zeitschr. für die gesammte Rechtswiss.*, Heidelberg, 1857, Vol. IV., pp. 385–424; *Die Grundirrthümer des Idealismus in ihrer Entwickelung von Kant bis Hegel*, in the *Zeitschr. f. ex. Ph.*, Vol. I., and other essays in the same periodical; *Die theologisirende Rechts- und Staatslehre, mit besonderer Rücksicht auf die Rechtsansichten Stahls*, Leipsic, 1861; *Ueber Schopenhauer's eth. Atheismus*, Leips., 1868.

Carl Thomas. *Spinoza syst. philos. delin.*, Königsb., 1835; *Spinoza als Metaphysiker*, Königsberg, 1840; *Spinoza's Individualismus und Pantheismus*, *ibid.*, 1848; *Die Theorie des Verkehrs*, Part I.: "Fundamental Notions of the Theory of Goods," Berlin, 1841.

C. A. D. Unterholzner. *Juristische Abhandlungen*, Munich, 1810. (The fourth of these "Juristical Essays" develops the philosophical principles of a penal system with special reference to Herbart's practical philosophy.)

Theodor Vogt. *Form und Gehalt in der Ästhetik*, Vienna, 1865.

Wilh. Fridolin Volkmann. *Grundriss der Psychologie vom Standpunkte des philos. Realismus aus und nach genetischer Methode*, Halle, 1856; *Die Grundzüge der Aristotelischen Psychologie*, from the Transactions of the Imper. Bohem. Scientific Assoc., Series V., Vol. 10, Prague, 1858; *Ueber die Principien u. Methoden der Psychol.*, in *Zeitschr. f. ex. Ph.*, II., 1861, pp. 33–71. [Volkmann's "Outlines of Psychology" are commended for the account of psychological literature which they contain, among other things.—*Tr.*]

J. H. W. Waitz. *Die Hauptlehren der Logik*, Erfurt, 1840.

Theodor Waitz. *Grundlegung der Psychologie*, Hamburg and Gotha, 1846; *Lehrbuch der Psychologie als Naturwissenschaft*, Brunswick, 1849; *Allgemeine Pädagogik*, *ibid.*, 1852; *Der Stand der Parteien auf dem Gebiete der Psychologie*, in the *Allg. Monatsschr. f. Wiss. u. Litt.*, Brunswick, Oct. and Nov., 1852, and August, 1853. *Anthropologie der Naturvölker*, Leipsic, 1859 seq (continued on the basis of the author's MSS., by G. Gerland). [*Introduction to Anthropology*, translated from the German of T. Waitz by J. F. Collingwood, London, 1863.—*Tr.*]

W. Wehrenpfennig. *Die Verschiedenheit der ethischen Principien bei den Hellenen und ihre Erklärungsgründe*, Programme of the Joachimsthal Gymnasium, Berlin, 1856.

Theod. Wittstein. *Neue Behandlung des math.-psychol. Problems von der Bewegung einfacher Vorstellungen, welche nach einander in die Seele eintreten*, Hannover, 1845; *Zur Grundlegung der math. Psychologie*, in the *Zeitschr. für exacte Philos.*, VII., 1869, pp. 341–358. Wittstein's hypothesis in regard to the mutual arrest of ideas, is that, if two ideas, a and b, are completely opposed to each other, the part of a which will be arrested, is expressed by $\frac{b^2}{a+b}$, and the part of b which is arrested is expressed by $\frac{a^2}{a+b}$, so that there remains of a only $\frac{a^2+ab-b^2}{a+b}$, and of b only $\frac{b^2+ab-a^2}{a+b}$; accordingly, of two ideas completely opposed to each other (and so also of two which are but partially opposed), the stronger may completely drive the weaker out from consciousness; in the case of complete opposition, the "threshold-value" for the weaker idea (b) is $\frac{1}{2}a(\sqrt{5}-1) = a.\,0.618$.

Ernst Friedr. Wyneken. *Das Naturgesetz der Seele, oder Herbart und Schopenhauer, eine Synthese* Inaug. Dissert. at Göttingen), Hannover, 1869.

Tuiscon Ziller. *Ueber die von Puchta der Darstellung des römischen Rechts zu Grunde gelegten rechtsphilosophischen Ansichten*, Leipsic, 1853; *Einleitung in die allgemeine Pädagogik*, Leipsic, 1856; *Die Regierung der Kinder*, Leipsic, 1857; *Grundlegung zur Lehre vom erziehenden Unterricht*, Leipsic, 1865; *Herbart'sche Reliquien*, *ib.*, 1871.

Rob. Zimmermann. *Leibnitz's Monadologie*, German translation, with an essay on L.'s and Herbart's theories of external processes, Vienna, 1847; *Leibniz und Herbart, eine Vergleichung ihrer Monadologien*,

Vienna, 1849; an article on Bolzano's Scientific Character und philos. importance, in the Reports of the Vienna Academy of Sciences, philos.-hist. section, Oct., 1849; on Some Logical Defects in Spinoza's Ethics, *ibid.*, Oct., 1850, and April, 1851; on Cardinal Nicolaus Cusanus as a Forerunner of Leibnitz, *ibid.*, April, 1852; on Leibnitz's Conceptualism, *ibid.*, April, 1854; on Leibnitz and Lessing, a Study, *ibid.*, May, 1855; *Das Rechtsprincip bei Leibnitz*, Vienna, 1852; *Ueber das Tragische und die Tragödie*, *ibid.*, 1856; *Geschichte der Æsthetik als philosophischer Wissenschaft*, *ibid.*, 1858; *Schiller als Denker, ein Vortrag zur Feier seines* 100*jährigen Geburtstages*, in the Trans. of the Imp. Bohem. Scientif. Assoc., Series V., Vol. II., Prague, 1859; *Philosophische Propädeutik*, Vienna, 1852, 3d ed., 1867 (containing Prolegomena, Logic, Empirical Psychology, and Introduction to Philosophy); *Philosophie und Erfahrung, eine Antrittsrede*, Vienna, 1861; *Allgemeine Æsthetik als Formwissenschaft*, Vienna, 1865 (goes with the *Gesch. der Æsth.*, under the common title of *Æsthetik*, the former being the "historico-critical" and the latter the "systematic" part).

Upon the basis of logical and metaphysical speculations akin to those of Herbart, A. Spir has developed a doctrine resembling that of Parmenides, in *Die Wahrheit*, Leips., 1867; *Andeutungen zu einem widerspruchslosen Denken*, *ib.*, 1868; *Forschung nach der Gewissheit in der Erkenntniss der Wirklichkeit*, *ibid.*, 1868; *Kurze Darstellung der Grundzüge einer philosophischen Anschauungsweise*, *ibid.*, 1869; *Erört. einer philos. Grundansicht*, *ibid.*, 1869; *Kleine Schriften*, *ib.*, 1870.

The doctrine of Hermann Lotze is similar to that of Herbart, and still more so to the philosophy of Leibnitz, although Lotze justly protests against being termed a Herbartian, since he accounts for the possibility of the co-existence and the phenomenal interaction of the numerous essences (monads) by reference to the necessary unity of a substantial cause of the world, to the activity of an original, essential unity in all real things. The Infinite, says Lotze, is the One Power, which has given itself, in the whole world of spirits, numberless accordant modes of existence. All monads are but modifications of the Absolute. Mechanism is the form of finite existence, the form which the one real essence gives to itself.

Lotze. *Metaphysik*, Leipsic, 1841; *Allg. Pathologie und Therapie als mechanische Naturwissenschaften*, *ibid.*, 1842; *Ueber Herbart's Ontologie*, in Fichte's *Zeitschr. f. Phil.*, Vol. XI., Tüb., 1843, pp. 203–224; *Logik*, Leipsic, 1843; *Allg. Physiologie des körperlichen Lebens*, Leipsic, 1851; *Medicinische Psychologie oder Physiologie der Seele*, *ibid.*, 1852; cf. Lotze's article on the Vital Force, in Wagner's Dictionary of Physiology; *Streitschriften*, Leipsic, 1857; *Mikrokosmus, Ideen zur Naturgeschichte und Geschichte der Menschheit*, 3 vols., *ibid.*, 1856–64, Vol. I., 2d ed., 1868 *seq.*; *Gesch. der Æsthetik in Deutschland* (History of Æsthetics in Germany, forms a part of the "History of the Sciences in Germany" [written by various German scholars, and published under the patronage of the King of Bavaria; Dorner's "History of Protestant Theology" forms a part of this series.—*Tr.*]), Munich, 1868.

[Rudolph Hermann Lotze was born May 21, 1817, at Bautzen, in Saxony. At the University in Leipsic he studied medicine and philosophy, graduated in both departments in 1838, and qualified as a *Docent* or private university lecturer, also in both departments, in 1839. In 1842 he was appointed professor *extraordinarius* of philosophy at Leipsic, whence in 1844 he followed a call to Göttingen, as professor *ordinarius*. The wide range of his information in physical (especially in physiological) science, and his familiarity with metaphysical speculation, the independence and discretion of his own philosophical investigations—a discretion which, but for its foundation in knowledge, might well be termed skepticism—and the brilliancy of his style as an author and lecturer, have combined to secure him a high eminence among living German thinkers. The following account of some of his principal works is translated from Erdmann's "Compend of the History of Philosophy":—

"Perhaps the fact that Lotze, in the third part of his *Metaphysik*, had defined sensations as acts of self-assertion on the part of the soul in response to "interferences," constituted the prime occasion of his being reckoned as an Herbartian, notwithstanding

the constant polemic which he carried on, in this book, against Herbart, and of the persistence of many in so regarding him, even after the publication in Fichte's *Zeitschrift* of his criticism of Herbart's Ontology. At last, therefore, in his *Streitschriften* [*erstes Heft:* Reply to Fichte] he expressly requested that he be not classed as an Herbartian, and went on to define, with equal openness and correctness, his attitude with reference to other philosophical stand-points than his own. He here explains that it was a lively inclination toward poetry and art which first moved him to the study of philosophy. At the same time and from the same cause he felt himself more drawn toward the great circle of philosophical views, which had rather been developed into a characteristic expression of general culture than into a completed system, by Fichte, Schelling, and Hegel. But the most decisive influence, he adds, was exerted upon him, in this connection, by Weisse, to whom he owed it that he was so instructed with regard to a certain order of ideas, and so confirmed in the same, that he has never felt the existence of any occasion without, nor any impulse within, himself to abandon them. The study of medicine, he continues, led him to feel the necessity to the philosopher of a knowledge of natural science, and to perceive the complete untenableness of the Hegelian doctrines. It was to this knowledge, or, briefly, to his knowledge of physics, and not to the preponderating influences of Herbart's philosophy, that he was indebted for his realism, his doctrine of simple beings, his perception of the fact that causality implies always a plurality of causes, etc. If any one philosopher must be named as the one who guided him to these results, then he would say that it was Leibnitz, with his world of monads, who rendered him this service, rather than Herbart, for whom he feels an unconquerable antipathy. We shall scarcely be in error if we reckon as among those beliefs which at an early epoch in Lotze's career became immovably established in his mind, and as indeed that one in which they all culminate, the belief, which in this same *Streitschrift* Lotze designates as his fundamental doctrine, and as akin to the doctrine of the elder Fichte—namely, that the sufficient ground for all being and for all that takes place in the universe is found in the Idea of the Good, or that the world of worths [goods] is the key to the world of forms. Only he would not, with the elder Fichte, restrict the Idea of the Good to the province of action; on the contrary, the quiet beatitude of the beautiful, the sacredness of passionless and reposeful mental states belong, according to Lotze, no less to that ideal world which awaits and demands realization, and to which all the busy haste of action is related only as a means to an end. Hence, Lotze terms his philosophy, in this regard, by turns ideal, ethical, and æsthetic. In conformity with this fundamental view of his, also, he is enabled in his *Metaphysik* to define his stand-point as that of teleological idealism, and to say that metaphysics has its beginning not in itself, but in ethics. In the last-mentioned work, which in the midst of all his subsequent ones has been too much forgotten, Lotze institutes an investigation of the nature of true being. Such investigation, he argues, is necessary, because as man's ideas change and he advances in culture, his views as to what it is that possesses true being also change. The investigation is divided into three parts, the first of which relates to the doctrine of being, or ontology. Here the conceptions of being and of essence are successively discussed, and then the connection of things (through relations of adaptation) is treated of, the result of the whole discussion being expressed in the affirmation that that alone is truly real which is intended and is required by the idea of the good to be real. The three principal conceptions resulting from the investigation at this point are the conceptions of ground or reason, cause, and end. With them correspond, respectively (according to Lotze), the stand-points of Spinoza (Hegel), of Herbart, and of the phi-

losophy of nature; and the defect of each of these stand-points consists in its narrowness, in that neither of them permits more than one of the conceptions just mentioned to be considered, and either neglects or denies the validity of the other two. By far the most difficult part of Lotze's *Metaphysik* is the second, which treats of phenomenality. Here, as constantly afterwards, he warns the reader against forgetting that phenomenality, appearance, implies not only a something which appears, but also a being to whom it appears, so that the forms of phenomenality, or the cosmological forms, are nothing but the means through which the ontological forms, and therefore, in the last resort, whatever may be an end (intended), may be made visible. They are therefore objective appearances, without which the connection of, or (in other words) the teleological process in things could not be sensibly perceived. Since these forms, corresponding with the three fundamental conceptions of ontology, are in part pure (mathematical), in part reflected (empirical), and in part transcendental, it follows that a mathematical, an empirical, and a speculative philosophy of nature are all conceivable. Temporality (from which the notion of time is abstracted), spatiality, and motion are pure forms of sensible intuition, while matter and force (in the physical sense) are reflected forms. Matter and force are illusions, which are produced through certain configurations in the sphere of appearance, but they are also abbreviations [symbols] which the physicist has a right to employ. Among the transcendental forms of sensible intuition, that which includes all the rest is termed mechanism, or the system of all mechanical processes; in this connection it must be remarked that Lotze here makes no distinction between Mechanism and Chemism, but includes under the former expression all regular causal connection, so that he has nothing to oppose to mechanism but teleological connection. Here, already, he expresses himself in opposition to the separation of the mechanical from the organic, and demands that all organic processes be mechanically explained, that a physical physiology be built up. The beginning or first disposition of organic existence will, adds Lotze, it is true, scarcely be found thus explicable; but in regard to this subject no knowledge is possible; we can only affirm that in an organism once existing everything proceeds mechanically, *i. e.*, according to physical law. The last question of cosmology—what must be the nature of a being, able to convert the objectively external and its action into an internal quality (sensation)?—introduces the third part of the Metaphysics, which treats of the plurality in cognition. Here the subjective nature of the categories, their application to the objective, and finally the deduction of the categories are discussed. The principal point to be noticed here is that Lotze objects to the course of those who begin with the usual dualistic distinction between what really (objectively) takes place and the act by which it is known—from which the result naturally arrived at is that the world of reality is quite different from the world as we know it, and that we have no right to regard the real as subject to categories contained potentially in the human mind. On the contrary, affirms Lotze, the process of knowing is itself a part of that which takes place and is known; it is only when the vibrations of ether have been transformed by us into colors, that we have the (whole) real object; hence the inquiry respecting that which the knowing soul adds to the affections coming to it from without, *i. e.*, the critique of the reason, must not precede, but form a part of metaphysics. Since what is termed the objective is but one part of the realm of reality, it falls under the jurisdiction of the categories, as also, on the other hand, the thought which is occupied with being has underlying it the same relations as being itself. Just as the ultimate reason (ground) of the concurrence of causes (of *causæ* and *concausæ*, according to the older metaphysics) to the production of an effect is contained in the end (purpose) of the effect, so the ultimate explanation of the harmony between the knowing subject and the known existence (the seeing eye and the vibrations of ether) is to be found in the supreme end of things and in Him who proposed it, and the highest work of speculation would be accomplished—and only then would it be accomplished—if everything could be exhibited as the realization of divine purposes, or could be deduced from the absolute. The modern idealism, continues Lotze, of Schelling and Hegel attempted this; perhaps the reason for the failure of the attempt lay in the fact that more was aimed at than human force can accomplish; a sufficient and certain reason, however, is found in the circumstance that they so despised mechanism, *i. e.*, the consideration of the immanent regularity (uniformity according to law) of the interactions of forces, through which alone any real action is possible, that they at last asserted what was physically impossible, because it seemed idealistically desirable. The investigation of the physical laws and connections of things is repeatedly declared by Lotze to constitute the subordinate side of philosophical inquiry. Indeed, in his *Streitschrift* against Fichte he even goes so far as to contrast such investigation with philosophy as its opposite and, accordingly, to designate as non-philosophical those works of his in which he had set himself the task of treating of the phenomena of body and soul mechanically, or seeking to determine to what extent the physical and chemical laws known to us will suffice—without resorting to the hypothesis of a vital force distinct from the soul, or of a superior power, working in view of ends—to explain the phenomena of healthy and of diseased life. But in this judgment of these works he is wrong. For not only, as he mentions with just satisfaction, has he exerted a permanent influence among physiologists; psychologists as well have felt themselves materially aided by these works. The works alluded to are the work on Pathology, the article on Life and Vital Force, his Physiology, and his Medical Psychology."

"In the *Pathology* Lotze seeks to show that the processes observable in the living body are not distinguished from the physical processes of inanimate nature by any fundamental difference in the nature and mode of operation of the forces at work, but by the arrangement of the points of attack which are presented to these forces, and upon which here, as universally, the shape of the final result depends. In the first book the ground is taken that by the 'vital force' we are not to understand a distinct force, but rather the sum of the effects of numerous partial forces, acting under given conditions." . . . . "He shows physiologists and psychologists how many links in their chains of ratiocination are yet wanting, and how many possibilities are not excluded from their reasonings, in order to bring them to confess that many considerations have not yet been sufficiently taken into account. Perhaps this relative absence of dogmatic statement in his investigations is the reason why a man with whom, in point of profundity, at least no one among the living philosophers of Germany but Weisse [ob. 1866.—*Tr.*], and in point of sharpness of discrimination certainly no one but George can vie, and who is also so far superior to both in the brilliancy of his rhetorical style and of his oral delivery, has founded neither among his readers nor among his auditors a school. He is perhaps too much an academician, and too little a professor, to have a school."

In the *General Physiology*, says Erdmann, Lotze shows—in opposition to many who had employed his previous works to confirm their position, that science has now reached the point where it is able to demonstrate that all vital phenomena are simply physical and chemical processes of a very simple nature—that this position is incorrect.

"In the *Pathology*, as well as in the *Physiology*, Lotze had repeatedly intimated

that the animal and human organisms were constructed as if with a view to their receiving impulses from a soul connected with the organism. These intimations, which had been neglected especially by those who cited Lotze's writings in the interests of materialism, are supplemented by a full development in Lotze's *Medical Psychology*, which is a physiology of spiritual life in distinction from the physiology of the body. Like all the works of Lotze, it is divided into three books, of which the first treats of the general, fundamental conceptions of physiological psychology, the first chapter being devoted to the question of the existence of the soul, with constant critical reference to materialism, on the one hand, and, on the other, to the various systems of identity. In opposition to the former, it is shown that the hypothesis of the existence of an immaterial soul is by no means to be identified with that of the existence of a vital force—the arguments against which latter are here summarized and expressed with more precision than in Lotze's previous works—but that the fact of the unity of consciousness renders necessary the former hypothesis as the only means of accounting for this unity. In opposition to the systems of identity, it is alleged that the combining of ideal and real attributes in one substance is in direct contradiction with the demand for real unity. To both materialism and the systems of identity the standpoint of spiritualism [in the philosophical use of this term] is opposed as the true one, from which that, which materialism regards as most solid and certain, viz., matter, appears as unreal. What we know to exist, namely, is not matter, but numerous attributes which may be expressed collectively under the name of materiality. With regard to a large number of these attributes, viz., the qualitative attributes, physicists themselves confess that they are simply relations (to us); as for the rest (extension, impenetrability, etc.), it can be shown, that they may be very satisfactorily explained as relations of simple, unextended beings [*Wesen*]. If now we also bear in mind that our own internal states, our feelings, etc., are absolutely certain and directly obvious to us, and that an ideal interest will scarcely feel satisfied with the view that by far the greater number of all beings are nothing for themselves and exist solely for others, the only tenable opinion appears to be that which admits only the existence of spiritual monads. If from the internal states of such monads we could deduce the relations which produce for us the phenomenon of impenetrability, etc., psychology would be the foundation, or rather the whole, of philosophy. But the case is not as thus supposed; and hence we must assume for our starting-point, as abbreviations or symbols of that which we have not yet been able to deduce from principles, our material existence, on the one hand, and our psychical existence on the other, as co-ordinate facts, or, in other words, we must begin by drawing a sharp distinction between body and soul. Hence we must first consider the physico-psychical mechanism, and this constitutes the subject of Lotze's second chapter. The principal point of importance in this connection is the assertion of Lotze, that the interaction of soul and body is in no sense more incomprehensible than that of one wheel of a machine upon another, nor, indeed, less so; for *how* motion is communicated, and *how* the separate parts of the wheel cohere, we also do not know; the known fact is simply, in each case, that a phenomenon in the one object or part depends upon a process in the other. Hence Lotze not unwillingly terms his point of view the occasionalistic, but gives his readers to understand that the spiritualistic doctrine, characterized above, is better adapted for a thorough explanation of the phenomena under consideration than any other: souls or spirits, immaterial or ideal substances, might as easily exert an influence upon what is material, as imponderables upon ponderable elements, even if the elements of the material world were of an essentially different nature from those of the spiritual

world; the difficulty is, of course, still less for those who accept the above-mentioned spiritualistic theory. After calling attention to the fact that bodily affections are necessary for the soul, in order that it may convert them into sensations, and then by its own independent action further develop and elaborate them, Lotze shows in detail that for some of its operations the soul only needs a conductor (a nerve-fibre), for others entire organs, and for still others neither nerve-fibre nor organ, and affirms, finally, that the probable location of the soul is in that portion of the brain which is without fibres, since it is neither possible to find a common point in which all nerve-fibres meet, nor probable that the separate stimuli are conducted to the soul in complete isolation. (How, nevertheless, the soul comes to have sensible intuitions of space, is specially considered at a later stage in the discussion.) The third chapter treats of the nature and the fortunes of the soul. The scale of animated existence is here extended farther downward than is done by Fechner, it being asserted by Lotze that even the elements of the material realm have feeling. On the other hand, Fechner's doctrine of the existence of souls in the celestial bodies is disputed, the theories of Herbart and Hegel are criticised, and the point of view of the author is defined as that of idealism, which teaches that everything exists because—and only because—it has its necessary place in the import of an Idea expressing some phase of the Good, which Idea constitutes the essence of the thing; in view then of this position, immortality is not on the ground that they are such substances as Herbart assumed them to be—claimed for all souls, but only for those which have realized in themselves such a degree of goodness [such an absolute or relative value in the order of things] that they cannot be lost to the whole to which they belong. That moment in the operation of the natural forces, when the germ of a physical organism is developed, is also the moment when the substantial ground of the world produces a soul; as the bodily affection reacts on the soul and occasions in it the having a sensation, so here the act of generation, proceeding from psychical impulses, furnishes a similar occasion for the action of God, in whom every thing takes place. In the second book, which treats of the elements and of the physiological mechanism in connection with the life of the soul, Lotze, although not commending the traditional doctrine of the three faculties of the soul, yet defends it against the criticisms of Herbart, and shows how, in addition to the power of the soul to produce sensations, in response to nervous irritations, and also representations, another faculty, not derivable from the former, the faculty of having feelings of pleasure and dislike, must be admitted, and still further the faculty of effort. The simple sensations, the feelings, the motions and propensities of the soul, and finally its space-perceptions are next discussed. In the discussion of the last of these subjects, the most interesting, among so many interesting points developed, is that which relates to the power of the soul to localize the objects of its sensations. At first, only the impressions received are conducted toward the sensorium in a state of isolation; finally they are received into the fibreless parenchyma of the brain, within which the soul exists and moves; then by the aid of certain local marks or signs, which each impression has assumed during its transmission, it is possible, as Lotze further seeks to show, for the soul to localize the objects from which the impressions were derived. . . . In the third book Lotze discusses the phenomena of the life of the soul in its sound and diseased states, treating first of the states of consciousness, then of the conditions of the development of psychical life, and lastly of the agencies which interfere with it. The most prominent among the topics of this book, aside from the pathological phenomena therein discussed, are consciousness and unconsciousness, sleeping and waking, the

flow of ideas, self-consciousness, attention, moods and emotions, as also their reaction upon the processes of circulation, secretion, and nutrition, instincts, and congenital, individual talents.

"The fact that Lotze in this work left many of his investigations uncompleted, on the ground that they belonged properly to a 'philosophical' psychology, was enough to render any one, who placed a high estimate upon his importance as a philosopher, almost impatient at his long delay in fulfilling the promise made at the end of his *Physiology*, that he would enter, in a subsequent work, at least upon 'the bounding province between æsthetics and physiology.' This promise he at last fulfilled in his *Microcosmus*, in which he furnished the public with 'an attempt at an anthropology, which should seek to investigate and ascertain the entire significance of human existence from the combined consideration of the phenomena of individual life and of the history of the civilization of our race.' In conformity with the intimations given in his previous works, Lotze here develops fully the opinion that the antagonism between the æsthetico-religious and physical conceptions of nature rests on a misunderstanding, and that it disappears when the physicist admits that the creation, the origin of things, lies beyond his ken, and that his science must confine itself to the realm of things acting and reacting upon each other in accordance with natural laws, and when, further, the religious philosopher bears in mind that it is by no means injurious to the dignity of the Creator to suppose that he should maintain towards the things he has created the relation simply of a preserver, *i. e.*, that he should respect the laws of their action, as implanted in them by himself, or, that he should not interfere with them. That in what is said in the first volume—of which the first book relates to the body, the second to the soul, and the third to life—of the conflicting theories of nature, of mechanism in nature generally, as also of the mechanism of life in particular, of the structure of the animal body and its preservation, of the existence of the soul, its nature and its faculties, of the flow of ideas, the forms of knowledge as subsisting upon relations, of the feelings, of self-consciousness, and of the will, as also, further, of the connection of the soul with the body, the location of the former, and the interaction of both, of material life and of the beginning and end of the soul—that in what is said upon all these topics, very much should be repeated which had been contained in Lotze's previous works, was but natural. Still, one who has read those works will never, upon coming to this one, have the feeling that this is mere repetition. In the second volume, Book Fourth (of the whole work) treats of man, Book Fifth of the rational spirit, and Book Sixth of the 'course of the world.' The five chapters, into which each of these three Books is divided, contain the development of numerous topics which had been either entirely omitted or only briefly suggested in Lotze's earlier works. This statement is sufficiently verified in the headings of these chapters, which are as follows: 'Nature and the Ideas,' 'Nature out of Chaos' (in this chapter the question is raised: why then disorder must have preceded order?), 'The Unity of Nature,' 'Man and the Brute Creation,' 'Variety in the Human Species' (Races), 'Spirit and Soul,' 'The Human Senses,' 'Language and Thought,' 'Knowledge and Truth,' 'Conscience and Morality,' 'Influences of External Nature,' 'The *Naturel* of Man,' 'Manners and Customs,' 'Varieties in the External Life of Man,' 'The Interior Life.' No reader will be disappointed who expects to find here a very rich treasure-house of instruction. But let him be prepared to find much, which may have appeared to him as beyond doubt, treated as uncertain, and in like manner much, which he had supposed to have been proven false, represented as at least possible. It is this latter which led the materialists, especially, who had accustomed themselves to count Lotze among their own number, to denounce him as an 'apostate.' The third volume, like the second, is divided into fifteen chapters, each five, successively, constituting one Book. The seventh Book treats of history, the eighth of progress, and the ninth of the connection of things. In no part of the work will so much that is new be found as in this. At the very beginning, where the creation of man and, in this connection, the constancy of natural development and the theory of divine interference are discussed, Lotze holds up alike before the childish fear of so-called believers and the vain-glory which identifies weak hypotheses with irrefragable knowledge, an instructive mirror. Extremely interesting, further, especially when compared with the opposite view of Fechner, is Lotze's nominalistic belief, which comes to view where he speaks of the education and progress of humanity. Since humanity is an unreal abstraction, the expressions education and progress have no sense except under the supposition that individuals continue to exist, and become conscious of the manner in which they have contributed to the advancement of coming generations. In connection with the subject of the operative forces in history, Lotze discusses the question of freedom or necessity, and points out the hollowness of the arguments which are drawn from statistical observations. The external conditions of development are considered, and in that connection the question relative to the unity of origin of the human species is ventilated—and this in that same spirit of a seeker after simple truth, which restrains one from all premature judgments, of which Lotze in the earlier parts of his book gives constant evidence. Book Seventh closes with a thoughtful review of the history of the world, a review which renders it sufficiently obvious why Lotze speaks with such love and reverence of Herder, and as the result of which Lotze utters his warning against the attempt to write a philosophy of history until the facts of history shall have been more exactly ascertained, especially those relating to the Oriental nations. With a review of the course which science has taken, the eighth Book begins. The result arrived at is, that the errors of modern idealism, which asserts that thought and being are identical and that the essence of things is thought, were inherited from the ancient philosophers, who in their identification of logic and metaphysics placed the Logos over all things, and thus forgot that which transcends all reason, and must and can therefore only be apprehended, experienced, with the whole spiritual nature. The discussion is then directed to the subjects of the enjoyment of life and labor in their various forms and degrees—including the modern idea of 'business,' which, says Lotze, has swallowed up all other interests and has taken the place of labor—and in their lights and shadows, after which the subjects of the beautiful and of art are considered. An historical summary of æsthetic ideas is given, in the course of which the idea of the colossal is assigned to the Orient, the idea of sublimity to the Hebrews, the idea of beauty to the Greeks, elegance and dignity to the Romans, the characteristic and the fantastic to the Middle Ages, and the ingenious and critical to modern times. In the chapter which follows, on religious life, the cosmological element is designated as predominant in paganism, and the moral element in Judaism and Christianity, while in the more recent works of philosophical dogmatics a returning preponderance of cosmology is detected. The reason why the Orient was the cradle of religions is found by Lotze in the consideration that the Oriental eye is ever directed to the Whole, while the Occident regards rather the Universal. The object of the last chapter in the eighth Book is to point out the evidences of progress in public life and in society. The topics treated of are the 'family, and states founded on unity of race,' 'the empires of the East,' 'guardian despotisms,' 'the political fabric of the Greeks,' 'the civil commonwealth, and law, in Rome,' 'the independent glory of society,' 'rational and historic right,' and 'postulates that can or that cannot be realized.' Lotze

opposes decidedly the apotheosis of the state, or the regarding of the state as an end in itself. No less decided, however, is also his opposition to all revolutionists who ignore existing rights. The last Book of the entire work treats of the 'connection of things,' and shows, by uniting all the previous threads of the investigation, on what basis all the inquiries in the book have rested. Naturally, much that is here said is nearly related to what had been set forth in Lotze's *Metaphysics*. In the first chapter the being of things is considered. The ground taken is that all being involves relation, and that therefore absolutely unrelated being is contradictory; that the relation of two beings to each other is not between, but in them, since each suffers the influence of the other; and, finally, that this interaction is only reconcilable with the hypothesis of a substantial unity, so existing in all individual things, that their mutual actions and reactions may constitute states of a being [*Wesen*]. In the second chapter, upon the sensible and supersensible world, the theory of space previously developed in the *Metaphysics* —the theory that space is the form, not of sensible intuition, but of sensible intuitions —is developed minutely and compared with the theories of Kant and Herbart, and it is shown how the place of a thing in the realm of sensible intuition corresponds to its position in the intellectual order, and how its motion in space, which we perceive with the senses, corresponds to its changes in the same order. The space-form is accordingly the form in which relations and—since it is in relations that being subsists—in which being appears to us. In the third chapter, which is headed 'Reality and Spirit,' the grounds on which the previously-mentioned doctrine of spiritualism rests, are given; the substance of them is contained in the demonstration that interaction—or rather inter-passion—is only possible between beings which are able to observe or feel this action or passion, or between beings which exist for themselves (are conscious), and that hence conscious beings or spirits are the only real things existing. There follows in the fourth chapter an inquiry respecting the personality of God. Here the relation between faith and knowledge is briefly discussed, the proofs of God's existence are criticised, Fichte's arguments against the personality of God are examined and his and the pantheistic notion of God criticised, and it is shown that selfhood, 'existence-for-self' [self-consciousness], as such, does not imply the existence of a non-Ego; only conditioned self-consciousness implies such existence. [Personality, argues Lotze, does not depend on the distinction of a *me* from a *not me*; it has its basis in pure selfhood—in being for-or-to-self, self-consciousness—without reference to that which is not self; the personality of God, therefore, does not necessarily involve the distinction by God of himself from what is not himself, and so his limitation or finiteness; on the contrary, 'perfect personality is to be found only in God, while in all finite spirits there exists only a weak imitation of personality; the finiteness of the finite is not a productive condition of personality, but rather a hindering barrier to its perfect development.' *Mikrokosmus*, Vol. III., p. 576.—*Tr.*] The closing chapter relates to God and the World, treating of the origin of eternal truths and their relation to God, of creation and preservation, of the origin of reality and of evil, of the good, of goods and of love, and lastly of the unity of the three principles [*i. e.*, of the ethical Ideas, of the forms of reality, and of the eternal truths] in love. The modest reserve which characterizes all of Lotze's writings appears in especial prominence near the end of this work, where he indicates as the (probably unattainable) end of science the development of a stand-point, from which the three questions: by what law? through what means? and to what end? would find their satisfactory answer in the answer to the last—a stand-point from which at once the laws according to which, the forces through which, and the ends for the sake of which things exist, should be known, or, what amounts to the same

thing, from which it should be evident that in the realization and operation of mathematical and mechanical laws ethical requirements were at once satisfied. The sum of his opinions is expressed by Lotze at the end of this [the ninth] Book, where the universal is described as everywhere inferior to the particular, the species to the individual, and the contents of the realm of true reality are restricted to the living, personal spirit of God and the world of personal spirits, which He has created. Any one who has read attentively Lotze's *Mikrokosmus* will consider him too modest in what he says of it at the beginning of the ninth Book [his object, he here says, is less to convince the reader of the truth of a system than to place himself in a personal relation to the reader, as one who, without assuming to arrive at fully-demonstrated results, nevertheless finds in reflection and in conversation upon fundamental problems the noblest occupation of human life.—*Tr.*], and will, notwithstanding Lotze's protest against the attempt to assign to each philosopher a place in the history of the development of philosophy, surely assign to him such a place, and that, too, by no means one of the lowest. That our presentation of the history of philosophy ends with him, shows how high we estimate his rank as a philosopher." Erdmann, *Grundriss der Geschichte der Philosophie.* Vol. II., § 347, 11–13.—*Tr.*]

On the writings of Lotze and especially upon the doctrines of his *Mikrokosmus* are founded the philosophical postulates of Wilh. Hollenberg's *Zur Religion und Cultur: Vorträge und Aufsätze* (Elberfeld, 1867), and of his *Logik, Psychologie und Ethik als philos. Propädeutik* (Elberfeld, 1869). Hermann Langenbeck also (see above, § 132, Lit.) follows Lotze and in part Kant, in *Das Gesetzige in seinem ersten Unterschied vom Physischen im engeren Sinne* (Berlin, 1868).

Akin to the Æsthetics of Herbart is that of Ad. Zeising (*Aesthetische Forschungen*, Frankfort, 1855). Zeising finds in the so-called "golden division," the division of a line (= 1) into two such parts (a and b) that $a : b :: b : 1$ (where $a = \frac{1}{2}[3-\sqrt{5}]$ and $b = \frac{1}{2}[\sqrt{5}-1]$), an æsthetic significance, in that it furnishes the most perfect mean between absolute equality (1 : 1) and absolute diversity (1 : 0), or between expressionless symmetry and proportionless expression, or between rigid regularity and unregulated freedom.—F. A. von Hartsen, in his attempt at a critical reformation of Herbart's philosophy, assumes ground not far removed from that on which Herbart's doctrine rests. His works are: *Methode der wiss. Darstellung*, Halle, 1868; *Grundlegung von Aesthetik, Moral und Erziehung, ibid.*, 1869; *Untersuchungen über Psychologie, ibid.*, 1869; *Untersuchungen über Logik, ibid.*, 1869; *Grundsätze der Wissenschaft des Glücks, Halle*, 1869.

The Spinozistic-Kantian idea that soul and body are but two different modes of the appearance of one real subject (according, namely, as it is apprehended from without or from within, through the senses or through self-consciousness), is combined with a doctrine of atomism, in which the author inclines toward the conception of each atom as a spaceless or punctual essence, but not limiting the "soul" to a single atom, and with the doctrine that the various celestial bodies, as well as the universe, have souls, by Gustav Theodor Fechner, physicist and philosopher. Fechner decidedly rejects Hegelianism, which he regards as "in a certain sense the art of unlearning how to reason correctly." In his *Psychophysics* Fechner teaches how to measure the intensities of sensations by reference to the force of the stimuli, which force can be physically measured, on the basis of what he terms "Weber's law" (but which may be more correctly termed Fechner's law). Before Fechner's time, Daniel Bernouilli, in his essay *De mensura sortis* (Acad., Petersburg, 1738), and Laplace (who had made use of the expressions "*fortune physique*" and "*fortune morale*") had taught that the increase of satisfaction through outward gain (at least within certain limits) was in proportion, circumstances in other respects being like, to the relation of this gain to the previous possession, and that, therefore, if the possession increased in a geometrical progression, the satisfaction would increase in an arithmetical progression (or according to a logarithmic proportion); analogous results had been arrived at by

Euler, with reference to the perceptions of pitch in tone and the corresponding numbers of vibrations, while Delezenne, in the *Recueil des travaux de la soc. de Lille* (1827) and in Fechner's *Repertorium der Experimentalphysik* (I., p. 341, 1832), and Ernst Heinrich Weber, in Rud. Wagner's *Handw. der Physiologie* (III., 2d Div., p. 559 seq.), had announced that the modification of a sensation was proportional to the relative variation in the stimulus (to the relation of the increase, or other modification, of the stimulus to the original stimulus), having reference to the determination of variations of weight through the sense of pressure, and to the comparison of lengths (in lines) and of variations in musical pitch. Fechner now affirmed, on the basis of numerous observations, that, within certain limits, it was a universal law, that constant differences in the intensities of sensations correspond to constant quotients of the intensities of the stimuli, and in particular that the slightest perceivable differences in the intensities of the sensations (which differences are assumed by Fechner to have constantly the same magnitude) are, within certain limits, necessarily accompanied by like relative differences in the intensities of the stimuli (*i. e.*, by like quotients resulting from the division of the previous stimulus by the increment which it has received). If various stimuli, the intensities of which form a geometrical series, act upon the same sense, the result is sensations whose intensities form an arithmetical series. The intensities of the sensations are to each other as the logarithms of the intensities of the stimuli, when we regard as unity the "threshold-value" of the stimulus, *i. e.*, that value or intensity, which being reached by a stimulus of growing intensity, a sensation enters into ("crosses the threshold of") consciousness, or being reached by a stimulus of decreasing intensity, the sensation disappears from consciousness. The increment of sensation de is proportional to the relative increase of the excitation, $\frac{dr}{r}$. Hence the "fundamental formula" $de = \mathrm{K}\frac{dr}{r}$ (where K is a constant quantity); by integration we procure as "formula of proportion," $e = \mathrm{K}.\ \log.\ r - \mathrm{K}.\ \log\ \rho$ (where ρ denotes the threshold-value of the stimulus) or $e = \mathrm{K}.\ \log.\ \frac{r}{\rho}$. But if we take into consideration the fact that, even when there exists no external stimulus, the nerve is never wholly unexcited, we obtain, when the intensity of the external excitation is assumed $= r_o$, the equation $de = \mathrm{K}\frac{dr}{r + r_o}$. (Helmholtz, however, in his *Physiolog. Optik* (§ 21), shows that the exact proportionality alleged by Fechner by no means exists in all cases, but that instead of K we must place a function of r, which, when r increases moderately, remains nearly constant, but which, when r receives a more considerable increment, tends to become equal to zero, since in the case of very violent stimuli a limit is reached, beyond which the sensation no longer increases; Helmholtz therefore admits Fechner's formulæ only as a first approximation to the truth.) Fechner assumes that within definite limits the intensity of the nervous excitation is proportional to the intensity of the external stimulus, and that "Weber's law" is perhaps strictly true for the intensive relation between nervous excitation and sensation, and that it is applicable in general in the case of the relations between the psychical functions and the bodily functions immediately connected therewith (which, however, is very questionable).

Fechner. *Das Büchlein vom Leben nach dem Tode*, Leipsic, 1836, 2d ed., 1866; *Ueber das höchste Gut*, Leipsic, 1846; *Nanna oder über das Seelenleben der Pflanzen*, Leipsic, 1848; *Zendavesta oder über die Dinge des Himmels und des Jenseits*, Leipsic, 1851; *Ueber die physikalische und philosophische Atomenlehre*, Leipsic, 1855, 2d ed., 1864; *Elemente der psychophysik*, Leipsic, 1860; *Ueber die Seelenfrage*, Leipsic, 1861; *Die drei Motive und Gründe des Glaubens*, Leipsic, 1863; cf. Otto Caspari, *Die psycho-physische Bewegung mit Rücksicht auf die Natur ihres Substrats*, Leipsic, 1869. Caspari, in this opuscule, confesses his adhesion to the fundamental positions of Lotze and combats Fechner.

Of essential importance, in the interest of philosophical knowledge, is the reduction to common principles of natural laws which have been ascertained through positive investigation.

Joh. Müller, *Physiologie*, Coblentz, 1840; Alexander von Humboldt (Sept. 14, 1769—May 6, 1859), *Kosmos*, Stuttgard, 1843–1862 [English translation, London and New York]; J. R. Mayer (of Heilbronn), essays on the mechanics of heat (published collectively, Stuttgard, 1867); H. Helmholtz, *Ueber die Erhaltung der Kraft, eine physikalische Abhandlung*, Berlin, 1847, *Ueber die Wechselwirkung der Naturkräfte*, etc., *ein populär-wiss. Vortrag*, Königsberg, 1854, and comprehensive works on optics (*Handbuch der physiolog. Optik*, Leips., 1867, as vol. ix. of the *Allg. Encykl. der Physik*, edited by Gust. Karsten), and acoustics. [The *Correlation and Conservation of Forces*, edited by E. L. Youmans (New York: Appleton, 1865), contains a translation of Helmholtz's lecture on the Interaction of Natural Forces, and of Mayer on Celestial Dynamics, and on the Mechanical Equivalent of Heat—*Tr.*] Wilhelm Wundt, *Vorlesungen über die Menschen- und Thierseele*, Leipsic, 1863, and *Die physikal. Axiome und ihre Beziehung zum Causalprincip, ein Capitel aus der Philos. der Naturwissenschaften*, Erlangen, 1866. In the latter work, on the Axioms of Physics and their relation to the Principle of Causality, these axioms are expressed as follows: 1. All causes in nature are causes of motion. 2. Every cause of motion is external to the object moved. 3. All causes of motion work in the direction of the straight line uniting the point of departure with the point to which the operation of the cause is directed, or the "point of attack." 4. The effect of every cause persists. 5. Every effect is accompanied by an equal counter-effect. 6. Every effect is equivalent to its cause. C. J. Karsten (*Philosophie der Chemie*, Berlin, 1843) is to be termed an anti-atomist. From the stand-point of the mechanical theory of heat, Alex. Naumann has written a *Grundriss der Thermochemie*, Brunswick, 1869. The extension of astronomical knowledge to the chemical nature of the celestial bodies by means of the spectral analysis (see Kirchhoff, *Das Sonnenspectrum*, 1862 [and H. E. Roscoe, *Spectrum Analysis*, 2d edition, London, 1870—*Tr.*]), must exert a controlling influence upon philosophical inquiries respecting the universe. So, also, the investigations of Wilh. von Humboldt, in the science of language and æsthetics; of Roscher, K. Heinr. Rau, and others in political economy; of Ihering, respecting the spirit of the Roman Law; of Hepp, respecting German criminal law; Chr. Reinh. Köstlin's *Neue Revision der Grundbegriffe des Strafrechts*, *Gesch. des deutschen Strafrechts*, etc., Vassali's *Rechtsphilos. Betrachtungen über das Strafverfahren* (Erlangen, 1869), H. Hetzel's *Die Todesstrafe in ihrer culturgesch. Entwicklung* (Berlin, 1869), and many other works by the representatives of various departments of science, relate to philosophical problems or are very nearly related to such problems.

The most prominent among the followers of Beneke is Johann Gottlieb Dressler. Dressler was attracted to the philosophy of Beneke by the latter's theory of education, for the elucidation and defence of which he has labored successfully.

J. G. Dressler (died May 18, 1867), *Beiträge zu einer bessern Gestaltung der Psychologie und Pädagogik*, also entitled *Beneke oder die Seelenlehre als Naturwissenschaft*, Bautzen, 1840–46; *Praktische Denklehre*, *ibid.*, 1852; *Ist Beneke Materialist? ein Beitrag zur Orientirung über B.'s System der Psychologie, mit Rücksicht auf verschiedene Einwürfe gegen dasselbe*, Berlin 1862; *Die Grundlehren der Psychologie und Logik*, Leipsic, 1867, 2d ed. by F. Dittes and O. Dressler, 1870. Dressler published besides numerous essays in pedagogical journals (particularly in Diesterweg's *Pädagog Jahrb.*). After Beneke's death Dressler edited the third edition of B.'s Manual of Psychology (Berlin, 1861) and also the third edition of B.'s Theory of Education and Instruction (Berlin, 1864). (O. Dressler, son of the former, has published a compendium of Physical Anthropology, as a foundation for the Theory of Education, Leipsic, 1868.) A popular exposition of the outlines of Beneke's Psychology is given by G. Rau, in *Die neue Seelenlehre B.'s nach methodischen Grundsätzen in einfach entwickelnder Weise für Lehrer bearbeitet*, Bautzen, 1847, 2d, 3d, and 4th editions, edited by Dressler, *ibid.*, 1850 and 1854, and Mayence, 1865 (translated into Flemish by J. Blockhuys, Ghent, 1859). J. R. Wurst, pedagogue, applies Beneke's psychology to the theory of education in *Die zwei ersten Schuljahre*; Wurst's *Sprachdenklehre* is founded as to its contents on

Becker's *Grammatik*, while its didactic form is derived chiefly from Beneke. Kämmel's contributions to Hergang's *Pädagog. Realencyclopädie* are founded on Beneke's doctrines; the same author has written various articles for journals devoted to the theory and history of pedagogic science (on Herodes Atticus, on the history of the system of study in the time of the Antonines, in the *Jahrb. f. Ph. u. Päd.*, 1870, etc.). In addition to educational writings on the development of consciousness by Börner, Dittes, and Ueberweg, the following works have issued from Beneke's school: Otto Börner, *die Willensfreiheit, Zurechnung und Strafe*, Freiberg, 1857; Friedrich Dittes, *Das Aesthetische*, Leipsic, 1854; *Ueber Religion und religiöse Menschenbildung*, Planen, 1855; *Naturlehre des Moralischen und Kunstlehre der moralischen Erziehung*, Leipsic, 1856; *Ueber die sittliche Freiheit*, Leipsic, 1860; *Grundriss der Erziehungs- und Unterrichtslehre*, Leipsic, 1868, 3d ed., 1871. By Heinrich Neugeboren and Ludwig Korodi a Psychological Quarterly (*Vierteljahrsschrift für die Seelenlehre*) was published at Cronstadt from 1859 till 1861. F. Schmeding, *Das Gemüth* (Gymnasial "*Programm*"), Duisburg, 1868.

A compound of Beneke's empiricism and Kanto-Fichtean speculation, with independent modifications by the author, is furnished in C. Fortlage's *System der Psychologie* (Leipsic, 1855), *Psychologische Vorträge* (Jena, 1868), and *Philosoph. Vorträge* (*ibid.*, 1869). An empiricism founded on the works of Bacon is presented in O. F. Gruppe's *Antäus, ein Briefwechsel über speculative Philosophie in ihrem Conflict mit Wissenschaft und Sprache* (Berlin, 1831), *Wendepunkt der Philos. im 19 Jahrhh.* (*ibid*, 1834), and *Gegenwart und Zukunft der Philos. in Deutschland* (*ibid.*, 1855). Gruppe holds that the period of system-making is the time of the childhood of philosophy, while investigation characterizes its manhood. The empiricism of Beneke is not empirical enough for Reinhold Hoppe (*Zulänglichkeit des Empirismus in der Philosophie*, Berlin, 1852), who terms his work [on the "Sufficiency of Empiricism in Philosophy"] an accomplishment of what Locke intended, namely, an elucidation of philosophical conceptions, with a view to the exact determination of the sense of philosophical questions, and so leading to their solution; in his philosophical doctrine Hoppe approaches most nearly to Berkeley, but adopts definitively only Berkeley's fundamental doctrine, that things exist only in the ideas of spirits, or that every object of knowledge is the idea of a knowing subject; he criticises Berkeley for not applying abstraction to perception, as is necessary in order to arrive at the conception of *thing*. R. Hoppe, *Ueber die Bedeutung der psychologischen Begriffsanalyse*, in the *Philos. Monatsh.*, IV., Berlin, 1869.

In the midst of the struggles of philosophical parties, a common basis of philosophical knowledge is found partly in the history of philosophy, partly in single philosophical doctrines which are no longer disputed (mostly in the province of logic), and partly in those results of the positive sciences, and especially of natural science, which are intimately connected with philosophy. It is the essential merit of Adolf Trendelenburg, the Aristotelian, as a philosophical investigator and instructor, to have gone back to these common starting-points of philosophical inquiry, to have criticised one-sided doctrines, and to have undertaken to reconstruct philosophy upon well-assured bases. The most noteworthy among the doctrines peculiar to Trendelenburg is his theory of a constructive motion, directed by final causes, and common to the external world of being and to the internal world of thought, so that thought, as the counterpart of external motion, can and does produce from itself *à priori*, but in necessary agreement with objective reality, space, time, and categories. The essence of things, according to the "organic theory of the world" (cf. above, *ad* § 115, p. 59), is founded in the creative thought; the ethical task of man is to realize the idea of his nature, in the prosecution of which task thought, arriving in man at self-consciousness, elevates desire and sensation, and these, in turn, impel and animate thought. Man develops his human nature only in the state and in history. Legal right guards the external conditions necessary for the realization of ethical requirements with the power of the whole [the state]; it is the complex of those universal rules of action, through which the ethical whole and its members can be preserved and developed. The extrinsic [practical] universality of legal requirements follows from the intrinsic universality of the ethical ends, in the interest of which legal right exists. Trendelenburg develops this conception of law through the different spheres from the law of individuals up to international law. The state is the universal man in the individual form of a nation. The

end of all civil constitutions is the unity of power. Character and the growing realization of the idea of humanity is the moving-spring of the world's history.

Trendelenburg's philological and historical writings have been mentioned above (Vol. i., §§ 41, 46, 47, Vol. ii., § 115 etc.). In addition to these, mention should be made here of a work extremely valuable for didactic purposes, Tr.'s *Elementa logices Aristot.*, Berl., 1836, 6th ed., 1868, together with the supplementary *Erläuterungen*, *ib.*, 1842, 2d ed., 1861; also of Tr.'s principal works, the *Logische Untersuchungen*, Berl., 1840, enlarged editions, Leipsic, 1862, 1870, and *Naturrecht auf dem Grunde der Ethik*, Leips., 1860, 2d enlarged edition, *ibid.*, 1868; with the *Logische Untersuchungen* is connected, in thought, *Die logische Frage in Hegel's System*, Leips., 1843, and with the *Naturrecht*, the *Lücken im Völkerrecht*, *ibid.*, 1870. Among the followers of Trendelenburg are Carl Heyder (*Die Arist. und Hegel'sche Dialektik*, i., Erlangen, 1845), and A. L. Kym (*Hegel's Dialektik in ihrer Anwendung auf die Gesch. der Philos.*, Zurich, 1849; *Die Weltanschauungen und deren Consequenzen*, *ibid.*, 1854; *Trendelenburg's logische Untersuch. und ihre Gegner*, in the *Zeitschr. für Philos.*, Vol. 54, Halle, 1869, pp. 261–317; second article in the *Philos. Monatshefte*, iv. 6, 1870). Many investigators in the history of philosophy have derived from Trendelenburg a very important stimulus. Fr. Ueberweg (*System der Logik und Gesch. der logischen Lehren*, Bonn, 1857, 2d edition, *ibid.*, 1868 [translated by Lindsay: *System of Logic*, London: Longmans, 1871.—Tr.]) agrees with Trendelenburg in the renewed founding of logic on Aristotelian principles. [*Tr., Kl. Schriften, Lps.*, 1871.]

[Friedrich Adolf Trendelenburg* was born at Eutin, near Lubeck, Nov. 30, 1802. At the Universities in Kiel, Leipsic, and Berlin he devoted himself to philological and philosophical studies. From 1826 to 1833 he was a private tutor in the family of Postmaster-General von Nagler. In the latter year he was appointed a Professor *extraordinarius* at Berlin, which position was exchanged for that of a Professor *ordinarius* in 1837. In 1846 he became a member of the Berlin Academy, and he was its secretary, in the "historico-philosophical" section, from 1847 until his death, which took place on the 24th of January, 1872. "On that very day the journals announced his decoration by the King as a Knight of the Order of Merit, for his eminence in science and art."

The general bases and directions of Trendelenburg's philosophical activity have been indicated above. The following more special analysis of his fundamental doctrines, as set forth in his "Logical Investigations," will be welcome to those who are aware of the distinguished eminence of this author among recent German philosophers.

In the introduction to his work, Trendelenburg refers the repeated failures of philosophers in their attempts to arrive at results which should command universal acceptance on the part of those who are qualified to judge in matters of philosophy, to the fact that they have so generally chosen for their starting-point the whole, the universal, instead of the part, the particular or individual. (Their procedures have been too exclusively deductive and synthetic, and too little analytic.) Our author, on the contrary, proposes to begin with the investigation of the individual, assured that a beginning so made will of itself lead on to the general and final.

In the first section (of the second edition) the general topic to which the particular investigations are to relate, is defined as "logic, in the broader sense of the term," as "the science which lays the foundation for all other sciences," or "*philosophia fundamentalis.*" More especially: there are two sciences, or philosophical disciplines, which do not flourish where the other sciences are not cultivated, but to which all other sciences necessarily point—metaphysics and logic. All the special sciences, namely, have to do with a definite portion of the realm of things being.

* The following account of Trendelenburg's doctrines was prepared before the appearance of the third edition of Ueberweg's History, in which edition, for the first time, the above brief notice of these doctrines was inserted. The occasion for the account herewith given is perhaps not removed by the appearance of the shorter notice by Ueberweg.—*Tr.*

They do not treat of being as such, which is common to the objects of all sciences, but naturally lead to the contemplation of this common element. The science which considers what is thus universal in the objects of all the sciences is metaphysics. (Trendelenburg justifies his choice of this, the Aristotelian and more simple definition of metaphysics, on the ground that other conceptions of it, such as Kant's and Herbart's, would imply, if here adopted, an anticipation of the results of the investigations to be instituted.) In like manner, each of the special sciences has a method more or less peculiar to itself. Yet all these methods are but various modes of manifestation or operation for a common agent, the thinking subject, and their substantial unity is manifested in the nature of that which in every science is sought by them, namely, the necessary and universal. The special sciences, therefore, point through their methods to a universal science of that thought in which they have their origin. Now, that necessity and universality, which characterizes the results in which all real science ends, is a common product of logical and metaphysical factors, or of thought and being. The theory of science, or "logic in the broader sense," will be that science which considers logic and metaphysics in their union or unity, as exhibiting the necessary and universal correlate and rational ground of all particular thinking and being.

After a criticism of formal logic (in section II.) and of the dialectical method (III.—one of the most successful reviews of the Hegelian method), the special subject of these investigations is more precisely formulated (IV.). The ultimate distinction in human knowledge is that between thought and being. This distinction is involved in all knowledge. (Ulrici criticises Trendelenburg for *assuming* that this distinction exists. The skeptic, he says, denies it, and a philosophical investigator should begin by inquiring into the nature of thought alone, and the grounds of certainty and evidence. In fact, Trendelenburg [IV. 2] cites the "fact" of the existence of the sciences as proving the existence of knowledge, terming this fact "the basis of the logical problem." But the analysis of knowledge certainly discloses the presence of the distinction between what are termed thought and being, subject and object.) The question to be answered is: How do thought and being unite so as to bring forth the result termed knowledge? "how does thought get at being? how does being enter into thought?" Like, said the ancients, is only known through like. Thought and being can only enter into union through some element common to them both. This common element cannot be a passive quality, for then it would effect no mediation between thought and being. It must, therefore, be some form of activity common to both. It must further be original and simple. In the search for this common element, Trendelenburg reminds his readers that the path to be followed must lead (in Aristotelian phraseology) from the more knowable for us, or the special, to the more knowable by nature, or the general. (Fichte, Schelling, and Hegel, then, were wrong in beginning with the unconditioned.) We can conduct the search in two ways. "Either we may analyze the activities of thought and of things, with a view to discriminating from among them that ultimate one which forms the common bond of union; or we may take rp hypothetically some form of activity disclosed to us in sensible experience, and inquire whether it satisfies the requirements of the problem. We will follow the latter course, and we shall soon see how the first also would lead to the same end."

Looking now (V.) at the world of things, we find all activity connected with motion. All processes, mechanical, chemical, organic, are inconceivable without the idea of motion in space. All forms are the result of motion controlling matter. All

rest in nature is but the counterpoise of motions. So far as nature extends, motion also extends.

An analogous motion belongs to thought. The motion of thought is the counterpart of motion in nature, and to that extent identical with it. In distinction from external motion in space, it is to be termed *constructive* motion. This ideal motion is involved in all conscious acts, as Trendelenburg seeks to show by the examination of various typical instances of perception and conception. Motion, then, is common to thought and being, and the first requirement above indicated is thus fulfilled in it. It is also original, non-derivable, and manifests itself as such everywhere in nature and in the processes of thought. Finally, it is a simple activity, which can "only be perceived and exhibited, but not defined and explained." Since, then, motion meets all the requirements of a principle explaining the union of thought and being in knowledge, we may conclude that it is such a principle, and it remains only to try the conclusion by its further consequences and implications. Trendelenburg goes on next (VI.) to show that the conceptions of space and time are not necessary to the conception of motion, but that, on the contrary, the former flow from the latter. Time and space are products or phases of motion; time is its inner measure, and space its immediate external manifestation. But since motion is common to thought and being, it follows that time and space, its products or functions, are at once subjective and objective. The discussion of this subject is accompanied by extended criticisms of other theories of space and time, particularly of the Kantian and Herbartian theories. The following section (VII.) treats of motion as the *prius* and the medium of experience, with constant reference to the actual results of positive sciences or to other theories. The constructive motion of thought is exhibited as the source of mathematical notions (point, line, surface, etc.) and principles. Form is derivable from motion. Matter, on the contrary, or a substratum for motion, a something to be moved, cannot (*vs.* Kant) be reduced to motion, although every attempt to conceive it involves the conception of motion. In fine, then, ideal motion is the source of *à priori* notions, which are confirmed by experience because of the community between motion in thought and motion in being or in the world of objective reality. The *à priori* activity (ideal or constructive motion) of thought is involved in experience, and completes experience. Ideal motion (VIII.) can observe itself (self-consciousness). It is the primitive and universal act of thought. It may observe its own fundamental consequences and relations, and these in the form of conceptions—elementary conceptions—or under the name of categories, will express truths at once subjectively and objectively valid, because founded in the nature of that (motion) which is common to both thought and being. But "although these [categories] are derived from within the sphere of pure [*à priori* and] sensible intuition [as ideal faculty], yet they pervade all experience; for the *à priori* is only what it is, through the fact that it confirms itself in regions external to itself [in experience] and reveals itself. . . . . Hence while we deduce them from pure motion, we shall also seek to confirm them by empirical observations." In this way Trendelenburg deduces from motion eight "real" (or, in the wider sense of the term, physical) categories, or universal points of view under which we are compelled to regard things, and that are at the same time forms, under which things must exist. These are: causality (*causa efficiens*), substance, quantity, quality, measure, unity in plurality, inherence, reciprocity or interaction (involving, therefore, force). Of these the first, working cause, is the most important and the controlling one. But these categories do not cover the whole realm of empirical fact (IX.). The phenomena of organic nature disclose a new principle, the principle of design or final cause,

in which the order of terms in the physical category of (efficient) causality is reversed, what was before cause becoming now effect, and *vice versâ*. In the case of physical causality the parts precede the whole. But finality implies a precedence of the whole, in the form of thought, idea, before the whole. In the former, being determines thought; in the latter, thought determines being. "As we know external motion only through the ideal motion in the mind itself, so we know the external end [*causa finalis*], which is realized in nature, only because the mind itself proposes ends and can therefore reproduce in itself ideally the ends realized in nature." The necessity of admitting the presence and controlling influence of final causes in nature is indirectly demonstrated by the incompetency of efficient (physical) causation to account for all facts. Motion, the fundamental natural principle common to thought and being, is involved in the new principle of design, and takes, so to speak, design up into itself. In connection with the discussion of this subject, the respective doctrines of Kant, Hegel, and Spinoza are examined and criticised. That which is controlled by a final cause external to itself is a machine; when, on the contrary, this cause is interior and realizes itself from within outwards, the result is an organism (X.). The interior organic end (final cause) is the individualizing principle of the world. The coincidence of force and end in the same subject is the condition of selfhood, and selfhood is the condition of individuality in the higher sense of the term. In such individuality the psychical is manifested, and the soul, in this connection, may be defined as a self-realizing final idea. The soul is hence not a result but a principle. Organic nature, outside of the human realm, is unconscious and blind; man is capable of thinking the universal, and by this is elevated above the brutes. The organic in man rises to the ethical. The latter is a higher stage of the former. In man many (partial) ends at once seek realization. The ethical (whole) end must control them. This control is effectuated through the will. The will is "desire permeated by thought." In our purely animal desires we are guided by (individual) sensuous representations (notions) as motives. The will as such must be capable of acting in response to the impulsion of (universal) thought. "The ultimate end of man, to which all other ends are properly subordinate, . . . and the ends which are implied as requirements in this ultimate end, are subjects only of thought. The will never becomes will in the full sense of the term, except when it is capable of acting in response to the motive of this thought. When it so acts, when, therefore, it is moved by the idea of the nature of man, it is a good will. This ability to have for its motive, in opposition to the desires and independently of sensuous motives, only the good as apprehended in thought—this we term the freedom of the will." Such freedom is not innate, but is only acquired in the course of development. Here follow discussions of Kant's, Schelling's, and Schopenhauer's theories of the will. The real categories acquire in the organic and ethical realms an ideal and spiritual significance (XI.). Negation is only the "repellent force of an affirmation" (XII.). Of the modal categories (XIII.), necessity is not simply and negatively the impossibility of the contrary. It implies fixed points of judgment, from which this impossibility is perceived. It involves logical and ontological elements; it is "being, permeated by thought" (the universal). The substance of the remaining sections (XIV.-XXIII.), which relate mostly to specifically logical questions and involve extended criticisms of conflicting theories, is thus summarized by Trendelenburg (Vol. ii., pp. 493–496): "The community of thought and being is further displayed in the correspondence of the forms of thought with the forms of being, although they are essentially distinguished from each other by the fact that the former are universal and the latter individual. As in the realm of being substance issues from

activity and in turn activities go forth from substance, so from judgments spring conceptions, and from conceptions judgments. The relation of reason [*Grund*] and consequence in thought corresponds in being with the relation of cause and effect. Since in the judgment it is the activity of the objective subject of the judgment which determines the nature of the judgment, demonstration is but a sort of expanded judgment. The necessity of the consequence flows from the points in which thought and being meet and agree; for, in the ultimate sense of the expression, we understand a thing only when we are able to reproduce in thought the steps of its development. The development of a principle gives us in the same way the system of a science, corresponding with a given sphere or section of the world of reality, governed by a single law.

"The unconditioned, to which the systems of the finite sciences point, transcends the conceptions which hold good for the conditioned spirit and for conditioned things. It cannot be told to what extent these finite categories express adequately the essence and life of the infinite. Yet what is necessary in the sphere of the conditioned cannot be accidental in the sphere of the unconditioned. The mind is indirectly forced to posit the absolute, and to posit it in such form that the world in its unity may be viewed as in some sense the visible, corporeal counterpart of the creative spirit. Hence we must apprehend the world in its most intimate nature, in order to understand God in his essence. To this end, all sciences must co-operate for the building up of an organic philosophy of things, a philosophy having its foundation in the firm ground of the individual, the particular, and in which nothing real is divorced from its corresponding thought and no thought is without its realization—a philosophy in which things are exhibited as setting forth the reality of the divine idea, and the divine idea as constituting the truth of things. In such a philosophy the world is the glory of God and God is the postulate of the world. Where the separate sciences work in opposite and hostile directions, it is the mission of philosophy to reconcile their differences by showing them their place in that single whole, which is ruled and comprehended by mind alone, and so to direct them that they shall all appear but as partial manifestations of one organic idea of the universe."

"Motion becomes the organ of design." "Design [the final cause], in the form of foreseeing thought and directing will, becoming the source of what were otherwise only blind motion, the real appears as subordinate, logically and in fact, to the ideal, and the ideal is realized in the real. The philosophy which seeks to demonstrate and to develop this view, dispenses with the equivocal identity of the subjective and objective, but unites and harmonizes realism and idealism."

In Trendelenburg's "Natural Right on the Basis of Ethics," the fundamental principles of ethics are stated, and man in his various relations to society is considered. The legal and moral are not to be separated. The principle of ethics is the idea of human nature, or the nature of man in the whole significance of its idea and the wealth of its historical development (see Erdmann, II., § 347, 8). The degree to which Trendelenburg follows in his philosophy, as a loving disciple, the ancients (Plato, and especially Aristotle), is not less evident in his ethics than in his Logical Investigations, and is especially illustrated in the article on the "Antagonism between Kant and Aristotle in Ethics," in Vol. III. of Tr.'s *Histor. Beiträge zur Philosophie* (pp. 171–213). This article ends with the following theses:—

"1. Kant has proved that the universal is the object and motive of the rational will. But he has not proved that the formally universal must and can be a principle. His proof that it must be such is defective, and that it can be such, *i. e.*, that it possesses an impelling force, he has not attempted to prove.

"In the direction of Aristotle is found a principle, which unites the universal and the special (individually peculiar), not a formally, but a specifically universal.

"2. Kant has proved that the pure will is the good will; but Kant has not proved that the pure will can have no empirical motive, no object in experience. He has not provided for the transition from the good and pure will *in abstracto* to the real will.

"In the direction of Aristotle is found a principle which does not surrender, but, on the contrary, replenishes with a positive content the good will.

"3. It has been proved by Kant that pleasure cannot be regarded as the motive of the good will. In that case the motive would be self-love. But Kant has not proved that pleasure is excluded from virtue and that nevertheless the reason may enter in, as if by a rear passage, and claim happiness as the reward of virtue in the realm of actual praxis.

"In the direction of Aristotle is found a principle which is not swallowed up by pleasure, but which makes pleasure one of its own results."

A dispute of considerable interest was carried on at intervals during a number of years between Trendelenburg and Kuno Fischer (Professor at Jena), with respect to Kant's proof of the subjective nature of space and time. Trendelenburg had remarked in the *Logical Investigations* that Kant had indeed proved the *à priori* nature of space and time, but that he understood the term *à priori* in such manner as to suppose that thereby he had proved that space and time were *only* subjective, and could not at the same time have objective validity. Kuno Fischer, in the second edition of his System of Logic and Metaphysics, disputed the correctness of this remark. Thereupon Trendelenburg devoted in Vol. III. of his *Histor. Beiträge zur Philos.* a special article to this subject ("On a Gap in Kant's Proof of the Exclusive Subjectivity of Space and Time: a Critical and Anti-Critical Sheet"), in which he reaffirmed and developed in detail his former position, and charged Kuno Fischer with introducing into his account of Kant's arguments and doctrines non-Kantian elements. The point was one of fundamental consequence to Trendelenburg, whose doctrine rests essentially on the theory of the at once subjective and objective nature of space and time. It was also one of considerable historical and critical import, as relating to the interpretation of a fundamental point in Kant's *Critique*. The dispute was continued, at last with not a little bitterness, in Kuno Fischer's *Gesch. der neuern Philosophie* (2d ed., Vols. III. and IV., 1869), in a pamphlet by Trendelenburg, entitled *Kuno Fischer und sein Kant* (Leipsic, 1869), and in a reply by Kuno Fischer to the latter, in a pamphlet entitled *Anti-Trendelenburg* (Jena, 1870). Cf., with reference to this controversy, on the one hand, A. L. Kym, *Trendelenburg's logische Untersuchungen und ihre Gegner*, in the *Zeitschr. für Philos.*, Vol. LIV., No. 2, Halle, 1869 (this article is specially devoted to the defence of Trendelenburg's doctrines in general against the objections of Kuno Fischer), and, on the other, C. Grapengiesser, *Kant's Lehre von Raum und Zeit; Kuno Fischer und Adolf Trendelenburg*, Jena, 1870. (See also below, App. III., *ad.* § 122.)

It will be seen from the above that Trendelenburg philosophized with constant reference to the results of the positive sciences. Says Fortlage, an historian of modern philosophy from Kant's time till the present (*Genetische Gesch. der Philos. seit Kant*, Leipsic, 1852, p. 449): "It is important to notice that natural science, as it now exists, is extremely favorable to Trendelenburg's doctrine, to such degree that this doctrine may be termed the last and complete consequence drawn from the present state of natural science." Trendelenburg's doctrine lies at the basis of Jos. Beck's *Philosophische Propädeutik*, of which Part. II. (*Encyclopädie der theoretischen Philosophie*) may be styled in good part a résumé of Trendelenburg's ideas.—*Tr.*]

Together with the philosophical tendencies already mentioned, many others of earlier or later origin have existed.

At most Catholic institutions a scholastically modified Aristotelianism prevails, particularly the Thomist doctrine. Still, during the last years Herbartianism has acquired a great influence in those institutions, especially in Austria. On the basis of the Aristotelian and scholastic doctrines, Georg Hagemann gives a systematic presentation of philosophy in *Elemente der Philosophie* (including logic, metaphysics, etc., 2d ed., Münster, 1869). So, too, F. J. Clemens (see above), R. P. Kleutgen, A. Stöckl (*Lehrbuch der Philos.* 2d ed., Mayence, 1869), and others are friendly to scholasticism. There are not wanting sporadic attempts at an independent reformation of philosophy, as witness the attempts of Frohschammer (editor of the *Athenæum*. Frohschammer combats materialism on the one hand [see below], and hierarchism on the other [see *Das Recht der eigenen Ueberzeugung*, Leipsic, 1869]), Michelis (author of the above-cited works on Plato and on Kant, of a review of the historical development of philosophy, and of other works and essays), and others. On Bernh. Bolzano (1781–1848: *Wissenschaftslehre*, Sulzbach, 1837; *Athanasia*, *ibid.*, 1838, etc.), who in many respects follows the Liebnitzo-Wolffian way of philosophizing, see M. J. Fesl and R. Zimmermann, as above cited. In this connection may be mentioned Oischinger (*Grundzüge zum System der christ. Philosophie*, 2d edition, Straubing, 1852; *Die Günthersche Philosophie*, Schaffhausen, 1852) and Mart. Deutinger (*Der gegenwartige Zustand der deutschen Philosophie*, edited from D.'s posthumous remains, by Lorenz Kastner, Munich, 1866.) (Cf. above, *ad* Günther.)

The fundamental principle of the Leibnitzian philosophy has been renewed in an independent form by Michael Petöcz (*Ansicht der Welt*, Leipsic, 1838), who regards the world as consisting of souls alone. Jos. Durdik terms Leibnitz the "real giant of German philosophy," and seeks to combine the Newtonian theory of gravitation with the doctrines of Leibnitz (*Leibnitz und Newton*, Halle, 1869). M. Drossbach (see below) also occupies a similar position. The Kantian philosophy has numerous and in part very eminent followers, although for a time they were less numerous among nominal philosophers than among the representatives of the positive sciences and in the wider circle of educated men. Prominent among the philosophers of this school at the present time stands Jürgen Bona Meyer, author of writings already mentioned, on Aristotle's Zoology, on Voltaire and Rousseau, on Fichte's addresses to the German Nation, and also of works on the dispute concerning Body and Soul (Hamburg, 1856), on the Idea of Metempsychosis (*ibid.*, 1861), *Philos. zeitfragen* (Bonn, 1870), and of other philosophical and pedagogical works and essays. [Meyer has recently published a work on Kant's psychology (*Kant's Psychologie, dargestellt und erörtert*, Berlin, 1870), in which the attempt is made to show that Kant's critical doctrine rests on a psychological foundation, or (in agreement with Fries) that "the *à priori* is discovered by the way of psychological reflection."—*Tr.*] Ernst Reinhold's (Karl Leonh. Reinhold's son, 1793–1855; cf. above, Vol. I, § 4) position was not far removed from Kantism (cf. Apelt, *Ernst Reinhold und die Kantische Philosophie*, Leipsic, 1840). F. A. Lange, author of the History of Materialism (*Gesch. d. Mater.*, Iserlohn, 1866), also avows his acceptance of the fundamental idea of Kant's critical philosophy. Lange assumes with Kant the existence of innate forms of intuition and judgment, which form the basis of all experience, but holds that no deduction of them is possible, and hence that Kant's "future metaphysics" is as impossible of realization as the old metaphysics is of justification; the discovery of the primary conceptions of the understanding—conceptions which are grounded in the original and invariable unfolding of the faculty of understanding, although we may not become conscious of them until a comparatively late period, and then only through abstraction—is possible only by the way of induction, with the aid of criticism and psychological science. Lange distinguishes still more decidedly than Kant between the ethical legitimacy of the ideas of the reason and their objective demonstration, but, in distinction from Kant, relegates the ethical ideas—his conception of which resembles Schiller's conception more than Kant's—to one common province with religion and poetry. In his work on the Labor Question (Winterthur, 1865, 2d ed., 1870), Lange seeks to show in what way, by moral influences, limits may be placed upon the exclusive working of rules founded on egoism. Otto Liebmann, while combating energetically Kant's "things in themselves," reproduces them in fact, although pretending the contrary, under the symbols X and Y, in his work, *Ueber den objectiven Anblick*, Stuttgard, 1869 (cf. above, § 122, Lit.); Liebmann has also written: *Ueber den individuellen Beweis für die Freiheit des Willens*, Stuttgart, 1866, and *Ueber eine moderne* (Fechner's) *Anwendung der Math. auf die Psychologie*, in the *Philos. Monatsh.*, V. 1870, pp. 1–24 (cf. above, § 122, p. 158). Karl Alexander, Baron von Reichlin-Meldegg, although not a Kantian nor a partisan of any philosophical school, shows more regard for Kant than for any other philosopher of modern times. The object of his Handbook of Psychology (Heidelberg, 1837–38) is to show what truths in psychology are established by experience, *i. e.*, by the facts of our own self-consciousness and by the observations of others. At the same time he makes special use of the results of physiological investigations. Cf. also, by the same author, *Autolatrie, ein Geheimniss der junghegel'schen Philosophie, Sendschreiben an L. Feuerbach*, Pforzheim, 1843; and the work published anonymously, *Der neue Reineke Fuchs*, Stuttgard, 1844; *System der Logik, nebst Einleitung in die Philosophie*, Vienna, 1870. [Von Reichlin-Meldegg is a very frequent contributor to the *Zeitschrift für Philosophie*, edited by Fichte, Ulrici, and Wirth.—*Tr.*] Of a similar order are the investigations of F. H. Germar, in his work on Faith and Knowledge (*Die alte Streitfrage, Glauben*

oder Wissen, beantwortet aus dem bisher verkannten Verhältniss von Tact und Prüfung, Zurich, 1856). Among natural investigators, beside Apelt, Schleiden, and others, especial mention should here be made of Helmholtz, of C. Rokitansky, and others. Helmholtz directs attention to the relationship between Kant's transcendental æsthetic and the present physiologico-psychological theory of sensuous perception. Akin, in certain respects, to the fundamental principle of the Kantian criticism, although not resting on the subjectivism and the *à priori* doctrine of Kant, is the principle now prevailing among non-materialistic investigators of nature, that whatever lies beyond the limits of exact investigation is absolutely excluded from the province of scientific knowledge and must be relegated entirely to the sphere of mere "belief," and that all philosophical attempts to supplement hypothetically the results of exact investigation, so as to form a complete system of the science of things natural and spiritual, are to the fullest possible extent to be avoided. Thus, for example, Rud. Virchow lays it down as his principle, "to testify only of that which is within the possible range of scientific comprehension," and ascribes to belief—in opposition to knowledge, which, he says, is more a "variable quantity"—the "prerogative of being at every instant constant" (a prerogative of which Virchow speaks half ironically, but which he leaves untouched in its immeasurable social importance; see Virchow, *Vier Reden über Leben und Kranksein*, Berlin, 1862, Preface). But Virchow demands of this faith, thus separated from science, what it cannot without inconsequence render, namely, that it shall come to terms with the results of empirical investigation. On the problems of psychology and on the relation of natural science to faith, Virchow has expressed himself especially in the essay on Empirical Science and the principle of transcendence, in the *Archiv für Patholog. Anat. und Phys.*, VII., No. 1, and in the article on Efforts after Unity in Medical Science, written in 1849, and reprinted in Virchow's collected essays on medical science (*Gesammelte Abh. zur wiss. Med.*, Frankfort-on-the-M., 1856, pp. 1–56).

Of philosophical authors and works connected with the so-called free religious movement, the following may here be mentioned: L. Uhlich, *Der Mensch nach Leib und Seele*, Gotha, 1870; E. Baltzer, *Alte und neue Weltanschauung*, 4 vols., Nordhausen, 1850–59, 2d ed., 1859 seq.; *Die neuen Fatalisten des Materialismus, ibid.*, 1859; *Von der Arbeit, ibid.*, 1864; *Gott, Welt, und Mensch, ibid.*, 1869. A related (pantheistic) doctrine is maintained by O. Möllinger, the mathematician, in *Die Gottidee der neuen Zeit*, 2d ed., Zurich, 1870.

The greatest interest during the last years, has been excited by the materialistic controversy, which is still going on.

The direction taken by the development of philosophy and natural science, and especially the transformation of Hegelianism into naturalism by Feuerbach and others, were of a nature to lead directly to this controversy, which, after having been previously carried on between Rud. Wagner and Carl Vogt especially, and between Liebig and Moleschott, assumed wider dimensions, principally on the occasion of an address delivered at the meeting of naturalists at Göttingen, in 1854, by Rud. Wagner, on the Creation of Man and the Substantiality of the Soul (*Ueber Menschenschöpfung und Seelensubstanz*, printed at Göttingen, 1854). In the first part of this address the author seeks to demonstrate that the question whether all men have descended from one original pair, can, from the standpoint of exact scientific investigation, be answered neither affirmatively nor negatively; that the possibility of such descent is physiologically indisputable, since we still see physiognomic peculiarities originating in men and animals, and becoming permanent, which phenomena resemble, though it may be only remotely, the probable phenomena accompanying the formation of races; and that, therefore, the latest results of natural science leave the belief in the Bible unmolested. The second part of the address is directed against the declaration of Carl Vogt, that "physiology pronounces definitely and categorically against the idea of individual immortality, as, indeed, against all notions founded upon that of the independent existence of the 'soul;' physiology sees in psychical activities nothing but functions of the brain, the material substratum of those activities." Wagner goes back to the earliest Christian standpoint, asserting that from the premise thus furnished by Vogt, it would follow practically that eating and drinking are the highest human functions; he maintains that natural science is not sufficiently far advanced to decide independently the question respecting the nature of the soul, and that this gap in our knowledge should be filled up by the belief in an individual, permanent psychical substance, in order that "the moral basis of the social order may not be fully destroyed." As a continuation of his speculations concerning the creation of man and the substance of the soul," Wagner published soon after an opuscule on "Knowledge and Faith, with special reference to the Future Condition of Souls" (*Ueber Wissen und Glauben*, Göttingen, 1854), in which, as also in his *Kampf um die Seele* (Göttingen, 1857), he concludes, from the diversity of the forms of organic existence in the earlier and later geological periods, that successive acts of creation have taken place, by which the course of nature has been modified; the doctrine of a future judgment and of retribution, he asserts further, is the basis of the moral order of the world, and he claims for the soul, which he supposes to be a sort of ether in the brain, a future local existence after death; in this latter connection he urges that the transplanting of the soul into another portion of the universe may be effected as quickly and easily as the transmission of light from the sun to the earth; and, in like manner, the same soul may return at a future epoch and be provided with a new bodily integument. In opposition to Wagner's distinction between knowledge and faith—which distinction he had also defended in earlier physiological writings, and in articles for the Augsburg *Allgemeine Zeitung*—or in opposition to what was called his "bookkeeping by double entry," Lotze, among others, had already expressed himself in his *Medicinische Psychologie*, on the ground that an harmonious system of convictions is among the essential needs of the human spirit. Carl Vogt accepted the challenge addressed to him by Wagner and fought his opinions, chiefly with the weapon of satire, in *Köhlerglaube und Wissen* (Giessen, 1854, etc.). The questions involved in the controversy are discussed by Vogt in their scientific connections, in his *Physiologische Briefe* (Stuttgard, 1845–47, etc.), *Bilder aus dem Thierleben* (Frankfort-on-the-M., 1852), and *Vorlesungen über den Menschen, seine Stellung in der Schöpfung und in der Geschichte der Erde* (Giessen, 1863 [*Lectures on Man*, etc., English translation, London; French translation, *Leçons sur l'homme*, by J.-J. Moulinié, Paris, 1865.—*Tr.*]). The task of developing systematically the materialistic principle has been chiefly assumed by Jac. Moleschott and Louis Büchner, by the former in *Der Kreislauf des Lebens, physiologische Antworten auf Liebig's chemische Briefe* (Mayence, 1852, 4th ed., 1862) and *Die Einheit des Lebens* (a lecture delivered at the University in Turin, Giessen, 1864), and by the latter in *Kraft und Stoff, empirisch-naturphilosophische Studien, in allgemein-verständlicher Darstellung* (Frankfort, 1855, 11th edit., 1870; this book may be called the Bible of the German materialism of the present day; it has been translated into numerous foreign languages [into English by J. F. Collingwood: *Force and Matter*, London, 1864.—*Tr.*] and has called forth replies from such foreigners as Paul Janet [*Le Matérialisme contemporain*; English translation by Gust. Masson, *Mat. of the Present Day*, Lond., 1867] in France, and E. Rossi in Italy, and others), *Natur und Geist, Gespräch zweier Freunde über den Materialismus und die real-philosophischen Fragen der Gegenwart* (Frankfort, 1857, 2d ed., 1865), *Physiologische Bilder* (Leipsic, 1861), *Aus Natur und Wissenschaft* (Leipsic, 1862, 2d ed., 1869), *Sechs Vorlesungen über die Darwin'sche Theorie von der Verwandlung der Arten, und die erste Entstehung der Organismenwelt* (Leipsic, 1868, 2d ed., 1869; Büchner has also translated from the English of Charles Lyell a production relating to the "Age of the Human Race and the Origin of Species by Modification"), and *Die Stellung des Menschen in der Natur* (Leipsic, 1869). Heinrich Czolbe (born Dec. 30, 1819) agrees with the materialists in denying the existence of a second, transcendent or "supra-sensible" world, and in expressing himself as "content with the one natural world, in which all that is true, good, and beautiful is contained." (Works: *Neue Darstellung des Sensualismus*, Leipsic, 1855; *Entstehung des Selbstbewusstseins, eine Antwort an Herrn Prof. Lotze, ibid.*, 1856; *Die Grenzen und der Ursprung der menschlichen Erkenntniss, im Gegensatze zu Kant und Hegel, naturalistisch-teleologische Durchführung des mechanischen Princips*, Jena and Leipsic, 1865; *Die Mathematik als Ideal für alle andere Erkenntniss*, in the *Zeitschr. für ex. Philos.*, Vol. VII., 1866.) Czolbe's methodical principle is the sensualistic one, that a clear image of the inner connection of things is only attainable on the condition that whatever hypotheses be used to supplement the reports of perception be capable of complete representation in the sensuous imagination; further, that thought itself is only a substitute for real perception, and that therefore whatever claims to be supra-sensible is to be rigidly denied consideration. On the fact, says Czolbe, that mathematics deals only with what is completely capable of representation in the sensuous imagination, and that it excludes from its province whatever is supra-sensible, rests the scientific superiority of that science, which must serve not only as a foundation, but also as an ideal prototype for all other knowledge. In the two first of the works above cited, Czolbe assumes, as elementary facts, not only the physical and chemical processes of nature, but also the organic forms of natural existence; and it is from certain physical motions of matter that he seeks to develop sensations and feelings as the elements of the soul. In the work on the Limits and the Origin of Human Knowledge, on the contrary, he declares this latter attempt to have been ineffectual. He here, therefore, assumes, as equally original with matter and with its designful forms, "the sensations and feelings which are hidden in space, or the world-soul." These form the "three fundamental limits [or elementary facts] of knowledge," with which he combines, as the "ideal limit of knowledge," the ultimate design of the world, in which the unity of the world consists, namely, "the happiness and well-being of every feeling being, as resulting from its attainment to the greatest possible perfection." To strive after this happiness and well-being, in its essential distinction from a narrow egoism, is with Czolbe the fundamental principle of morals and right. The theory that sensations and all psychical products are extended in space, is considered necessary by C. (so that his psychology is to be termed, not, indeed, materialistic, but "extensionalistic"). That the order of the world may be conceived (in opposition to the psychology which treats the soul as a mere point) as intrinsically designful, he considers it as eternal, and he ascribes the like eternity, not, indeed, to human individuals, but to the various astronomical bodies, or at least to those which contain organized and psychically-endowed beings, and, in particular, to the earth.* The tendency to new church-organization accompa-

* In this latter point Czolbe's theory, notwithstanding his efforts to prove the contrary, is, however, scarcely in harmony with astronomical and geological facts, such as, in particular, the gradual retardation of the rotatory motion of the earth through the influence of the ebbing and flowing tides, and the traces of the gradual cooling of the earth. It is also in conflict with the probability of the existence of a medium which tends to check the forward motion of all the celestial bodies, and so gradually to lessen the size of their orbits. In case there exists a resisting medium, the conclusion is inevitable that, with the progress of time, smaller

nies and characterizes the naturalism of Ed. Löwenthal (*System und Geschichte des Naturalismus*, Leipsic, 1861, 5th ed., *ibid.*, 1868; *Eine Religion ohne Bekenntniss*, Berl., 1865; *Monatsschrift für Forschung und Kritik im Bereiche der drei weltlichen Facultäten*, Dresden, 1868; *Der Freidenker, Organ des internationalen Cogitanten- oder Freidenkerbundes*, Dresden, 1870). Löwenthal affirms that the church proposed by him is distinguished from the so-called Free Church, by demanding, not absence of belief or tendency, or neutrality, but the exclusion of "belief in the supersensual," while, as its positive aims, he designates the "perfection of human knowledge, of human dignity, or morals, and of human welfare." The like tendency, in a certain sense, is manifest in the anonymous work: *Das Evangelium der Natur*, 3d edit., Frankfort-on-the-M., 1868. Karl Wilhelm Knnis (in his *Vernunft und Offenbarung*, Leipsic, 1870) sketches, from the materialistic standpoint, the outlines of a history of nature and religion. A mediating position with reference to the materialistic dispute is taken by Jul. Schaller, the Hegelian (*Leib und Seele, zur Aufklärung über Köhler glaube und Wissenschaft*, Weimar, 1855, 3d edit., 1858). Writing from the standpoint of Schopenhauer, Jul. Frauenstädt (*Ueber den Materialismus*, Leipsic, 1856) discriminates between truth and error in materialism. Judgments upon materialism, from the standpoint of positive theology, have been written by the Catholics, J. Frohschammer (*Menschenseele und Physiologie, eine Streitschrift gegen K. Vogt*, Munich, 1855; *Das Christenthum und die moderne Naturwissenschaft*, Vienna, 1867) and Friedr. Michelis (*Der Materialismus als Köhlerglaube*, Münster, 1856), as also by Anton Tanner (*Vorlesungen über den Materialismus*, Luzerne, 1864), by the Protestants, Friedr. Fabri (*Briefe gegen den Materialismus*, Stuttgard, 1856, second edit., with an essay on the origin and age of the human race, *ibid.*, 1864), Otto Woysch (*Der Materialismus und die christliche Weltanschauung*, Berlin, 1857), and Th. Otto Berger (*Evangelischer Glaube, römischer Irrglaube, weltlicher Urglaube*, Gotha, 1870), and by the philosopher, K. Ph. Fischer (*Die Unwahrheit des Sensualismus und Materialismus, mit besonderer Rücksicht auf die Schriften von Feuerbach, Vogt und Moleschott*, Erlangen, 1853), and others. A comprehensive knowledge of the physical sciences is shown in the anti-materialistic works of H. Ulrici (on "Faith and Knowledge," "God and Nature." "God and Man;" cited above), and others. Compare further, among other works, H. G. Ad. Richter, *Gegen den Materialismus der Neuzeit* (Gymas. Progr.), Zwickau, 1855; Braubach, *Köhlerglaube und Materialismus oder die Wahrheit des geistigen Lebens*, Frankfort, 1856; J. B. Meyer, *Zum Streit über Leib und Seele, Worte der Kritik*, Hamburg 1856; *Philos. Zeitfragen*, Bonn, 1870; Robert Schellwien, *Kritik des Materialismus*, Berlin, 1858; *Sein und Bewusstsein*, Berlin, 1863; A. Cornill, *Materialismus und Idealismus in ihren gegenwärtigen Entwicklungskrisen*, Heidelberg, 1863; Karl Snell, *Die Streitfrage des Materialismus, ein vermittelndes Wort*, Jena, 1858; the complement of the latter work, and a work which gives evidence of profound insight, is Snell's *Die Schöpfung des Menschen*, Leipsic, 1863; A. N. Böhner, *Naturforschung und Culturleben*, Hannover, 1859, 2d ed., 1870; M. J. Schleiden, *Ueber den Materialismus in der neueren Naturwiss.*, Leips., 1863; C. Werner, *Ueber Wesen und Begriff der Menschenseele*, 2d ed., Brixen, 1867. The attempt to reconcile the atomistic doctrine with the belief in human immortality is made by Max Drossbach, in *Die individuelle Unsterblichkeit, vom monadistisch-metaphysischen Standpunkte*, Olmutz, 1853; *Die Harmonie der Ergebnisse der Naturforschung mit den Forderungen des menschlichen Gemüthes oder die persönliche Unsterblichkeit als Folge der atomistischen Verfassung der Natur*, Leipsic, 1858; *Die Objecte der sinnl. Wahrn.*, Halle, 1865;

masses must be constantly merging themselves in larger ones (although in constantly increasing spaces of time), and that, while smaller bodies become cooled off and solidified more rapidly than the larger ones (the suns), yet through the plunging of the smaller bodies into the latter ones, of the moon into the earth, of the earth into the sun, etc., the incandescent state must be in the end brought back and the whole process of life must be renewed in over-increasing dimensions. We must conclude, further, upon the same condition, that this process of change and renewal must continue eternally, provided that matter shares in the infinity of space, otherwise it can continue only until a period which is removed from the present by a finite interval. The vibrations in the brain are, according to Czolbe, competent, not indeed to produce sensations and feelings, but to "detach" them from the world-soul, in which they are "latent." But this process of "detaching" is itself an "elementary fact" in Czolbe's theory and is left unexplained. The projection of sensations and perceptions (and also of representations and thoughts?) from the places where they are excited or "detached," beyond the limits of the body, leads to a mutual intersection of the fields of sensation of different persons; but here it is left unexplained and unintelligible, why in all cases only those sensations, etc., which originate in the same place [or, as we should ordinarily say, in the same mental locality or brain.—*Tr.*], are associated in unity of consciousness; for although this unity does not in fact depend on the punctual unity of the psychical substance, yet it does certainly presuppose a distinct and separate *continuum*, a *continuum* from within the sphere of which the sensations of other individuals are excluded, and which may be termed the space of consciousness; this space of consciousness, further, can scarcely be situated anywhere except within the brain (say, in the *thalamus opticus*, in which J. Luys [*Recherches sur le système nerveux cérébro-spinal*, Paris, 1865] believes the *sensorium commune* to be located, as, in the *corpus striatum*, the *motorium commune*).

Ueber Erkenntniss, Halle, 1869. (The doctrine of the last-mentioned works is that every atom fills from its centre the whole infinity of space, through the mutual interpenetration of all atoms.) An attempt similar to that of Bonnet, to combine with theological faith the theory of the entire dependence of the activities of the soul upon the bodily organs, has been made by G. A. Spiess, who holds it to be probable, that during and as the result of the earthly life a "germ of higher order" is developed in man, which, "attaining"—not, like organic germs, in the descendants of the first organism, nor spiritually in other men, but—"in other parts of the infinite creation of God to a higher development, will render possible the permanent continuation of personal, individual existence." Spiess has written: *Physiologie des Nervensystems, vom ärztlichen Standpunkte dargestellt*, Brunswick, 1844; *Ueber die Bedeutung der Naturwissenschaften für unsere Zeit*, and *Ueber das körperliche Bedingtsein der Seelenthätigkeiten*, two addresses, Frankfort-on-the-M., 1854. O. Flügel (*Der Materialismus vom Standpunkt der atomistisch-mechanischen Naturforschung beleuchtet*, Leipsic, 1865) concludes that all the psychical functions of each individual are centred in one atom. Flügel does not attempt to decide whether this atom is to be conceived as extended or as "simple" (a point), on the ground that no portion of psychology depends on the theory of the unextended nature of the soul (an assertion which is by no means true in the Herbartian psychology). Among the most recent writers against materialism is Ferd. Westhoff (*Stoff, Kraft und Gedanke*, Münster, 1865). A. Mayer (*Zur Seelenfrage*, Mayence, 1866), who combines the materialistic theory with a certain *à priori* doctrine derived from Kant and Schopenhauer, directs his arguments especially against Westhoff. Mayer's doctrine, in turn, is specially combated by H. H. Studt, in *Die materialistische Erkenntnisslehre*, Altona, 1869. Compare also Haffner, *Der Materialismus*, Mayence, 1865; L. Flentje, *Das Leben und die todte Natur*, Cassel, 1866; Julius Frauenstädt, *Der Materialismus und die antimaterialistischen Bestrebungen der Gegenwart*, in *Unsere Zeit*, new series, 1867, pp. 253-278; Rosenkranz, *Der deutsche Materialismus und die Theologie*, in the *Zeitschr. für histor. Theologie*, Vol. VII., No. 3, 1864. Christian Wiener and C. Radenhausen have attempted to frame new systems in which natural and spiritual life should receive their explanation from the results of exact investigation—the former in his *Die Grundzüge der Weltordnung: Atomenlehre und Lehre von der geistigen Welt* (Leips. and Heidelb., 1863, 2d ed., 1869), and the latter in *Isis, der Mensch und die Welt* (Hamburg, 1863, 2d ed., 1870). F. Alb. Lange's able work on the history of materialism gives evidence of equal familiarity with philosophy and with the results of investigations in natural science (*Gesch. des Materialismus und Kritik seiner Bedeutung in der Gegenwart*, Iserlohn, 1866). We may mention, further: H. A. Rinne, *Materialismus und ethisches Bedürfniss*, Brunswick, 1868; article on "the question of immortality in connection with the most recent German philosophy: 1. the opponents; 2, the defenders of immortality," in *Unsere Zeit*, IV., 12 and 15, Leipsic, 1868; M. E. A. Naumann, *Die Naturw. und der Mat.*, Bonn, 1868; C. Scheidemacher, *Die Nachteule des Materialismus*, etc., Cologne, 1868; G. H. G. Jahr, *Die Natur, der Menschengeist und sein Gottesbegriff*, Leipsic, 1870; Ludwig Weis, *Anti-Materialismus*, 2 vols., Berlin, 1871.

In the last few years the interest in physical philosophy has been chiefly directed, since the appearance of Darwin's work on the *Origin of Species*, to the problem indicated in the name of the work cited, this problem being closely connected with the question respecting the relation of force and matter, although belonging more particularly to the province of natural investigation.

On the basis of Darwin's doctrine rests, in particular, Ernst Häckel's comprehensive work on general morphology: *Generelle Morphologie der Organismen, allg. Grundzüge der organ. Formwissenschaft, mechanisch begründet durch die von Charles Darwin reformirte Descendenztheorie*, Vol. I.: On the General Anatomy of Organisms, Vol. II.: On the General History of the Development of Organisms, Berlin, 1866; cf. E. Häckel, *Natürliche Schöpfungsgeschichte*, Berlin, 1868, 2d ed., 1870; G. Jäger, *Die Darwinsche Theorie und ihre Stellung zu Moral und Religion*, Stuttgard, 1869; W. Braubach, *Religion, Moral und Philos. der Darwin'schen Lehre*, Nouwied, 1869.

The following authors, among others, have appeared with new attempts at the solution of various problems: Friedrich Rohmer (1814-1856), *Kritik des Gottesbegriffs in den gegenwärtigen Weltansichten*, Nördlingen, 1856 (published anonymously); *Gott und seine Schöpfung, ibid.*, 1857; *Der natürliche Weg des Menschen zu Gott, ibid.*, 1858; *Wissenschaft und Leben, I.: Die Wissenschaft von Gott, ibid.*, 1871; Anton Rée, *Wanderungen auf dem Gebiete der Ethik*, Hamburg, 1857; Heinrich Böhmer, *Die Sinneswahrnehmung*, Erlangen, 1864 seq.; V. A. v. Stägemann, *Die Theorie des Bewusstseins im Wesen*, Berlin, 1864; J. H. v. Kirchmann, *Die Philosophie des Wissens*, Berlin, 1864: *Ueber die Unsterblichkeit*, Berlin, 1865; *Aesthetik auf realistischer Grundlage*, Berlin, 1868; Von Kirchmann has also developed systematically and critically his own views in the *Philos. Bibliothek*, edited by him (Berlin, 1868 seq.); F. W. Struhneck's *Herrschaft und Priesterthum* (Berlin, 1871) is partly directed against von Kirchmann's basing of ethics on authority; Eugen Dühring, *Natürliche Dialektik*, Berlin, 1865; *Der Werth*

des Lebens, Breslau, 1865; *Kritische Grundlegung der Volkswirthschaftslehre*, Berlin, 1866; *Krtt. Gesch. der Nat.-Oec. u. des Soc.*, Berlin, 1871; C. Lemcke, *Populäre Aesthetik*, Leipsic, 1865, 3d enlarged ed., 1870; J. Hoppe, *Die gesammte Logik*, I., Paderborn, 1868 (67), *Die kleine Logik, ibid.*, 1869; A. Bastian, *Der Mensch in der Geschichte*, Berlin, 1860, *Beiträge zur vergleichenden Psychologie, ibid.*, 1868; W. Oehlmann, *Die Erkenntnisslehre als Naturwiss.*, Cöthen, 1868; A. von Oettingen, *Die Moralstatistik und die christliche Sittenlehre, Versuch einer Social-Ethik auf empirischer Grundlage*, Erlangen, 1868 seq.; K. R. E. von Hartmann, *Philos. des Unbewussten*, Berlin, 1869, 3d, considerably enlarged edition, 1871 (cf. several essays by Hartmann in the *Philos. Monatshefte*), *Ueber die dialektische Methode* (see above, lit. to § 129), *Schelling's posit. Philos. als Einheit von Hegel u. Schopenh.*, Berlin, 1869, *Aphorismen überdas Drama*, Berlin, 1870;)* A. Horwicz, *Grundlinien eines Systems der Aesthetik*, Leipsic, 1869; C. Hebler,

* Hartmann's philosophy is a form of monism, the subject being the unconscious spirit with the attributes will and representation (idea). (He explains feeling as resulting from affections of the will in combination with conscious and unconscious ideas.) He affirms that it is neither possible for the "logical Idea" of Hegel to attain to reality without will, nor for the blind, irrational Will of Schopenhauer to determine itself to prototypal ideas, and he demands therefore that both be conceived as co-ordinate and equally legitimate principles, which (after the precedent of Schelling in his last system) are to be thought of as functions of one and the same functioning essence. The Will posits the "That" (*dass*, the real existence) and the Idea the "What" (the ideal essence) of the world and of things. The "That" of the world is alogical like the Will; the "What" of the world is logical like the Idea. It results that the alogical existence of the world is also antilogical, because from the nature of the will (which we know by induction from experience) there follows the necessary preponderance of pain. Consequently it were better that the world should not exist than that it should exist (doctrine of pessimism), although the existing world is the best of all possible worlds (optimism), as is shown by its development, under the direction of unconscious providence, in a form giving evidence of the highest possible degree of adaptation. (Thus, for example, life is rendered endurable only by the artifice of nature, in virtue of which all is interesting to childhood and youth by reason of its novelty; the partial interruption of individual consciousness by sleep, and of the historic consciousness of humanity by death and birth preserves nature from atony.) The end of development is the turning back of volition into non-volition (a process not, as Schopenhauer teaches, individually, but only universally possible); the means to this is the greatest possible intensification of consciousness, since it is only in consciousness thus intensified that the idea is emancipated from will to the degree necessary for opposition. Ancillary to the rise and intensification of consciousness are the cosmical, telluric, and vital (biological) developments and the development of humanity.—Hartmann seeks to show the fruitfulness of the hypothesis of the Unconscious in clearing up and solving the most manifold problems in the fields of physiology, animal psychology, human psychology, æsthetics, and religious mysticism. (It explains for him, for example, the possibility of love: the alluring presentiment of the unity of all things becomes longing for union; love is the silvery flash of the eternal truth of the one all-comprehending being, shining in upon the illusion of consciousness.) Hartmann's doctrine differs from Hegel's (apart from the point mentioned above) chiefly in this, that the former considers the Idea not as something which, issuing from discursive abstract conceptions, becomes concrete, but as something immediately concrete to the intuitive apprehension, and inseparable from the logical law of development; and further, in that he opposes the dialectical method, and follows instead the inductive method, rising gradually in his conclusions from an empirical basis, chiefly of physical and psychological material, which he seeks to make as broad as possible. He disagrees with Schopenhauer, also, in denying that space, time, and categories (together with all that depends on them) are purely subjective, in adopting a doctrine of atomistic dynamism for the explanation of matter, and in affirming that what appears to us (phenomenally) as brain is not a sufficient cause of the intellect generally, but is only the condition of the form of consciousness.—This doctrine, therefore, regards the world, if we may be allowed the use of this expression, as, so to speak, the product of a good mother, the Idea, and of a bad father, the Will, who (as perhaps a Gnostic fancy might represent the case), captivated by the charms of the Idea, approaches it with a satyr's sensuous desire; the Idea cannot escape the lover's embrace, and brings forth the child, which ought not to exist, the world; but, with maternal solicitude, she provides the unhappy child with all the good gifts with which she is able to alleviate his misfortune, and if the necessity of his passing through the severe struggle of development here cannot be averted, yet a redemption is provided in the annihilation of the will, in the painlessness and the joylessness of Nirvana. To the critical question which may be raised on the basis of Hartmann's own assumptions, namely, why it is that this redemption is only negative, when it might be a return of the Idea into itself, an emancipation from the other of itself (the being-with-self of the Idea in Spirit, according to Hegel's trichotomy), and so furnish an intellectual blessedness, unmixed with desire, to this Hartmann answers: the eternal self-mirroring of the Idea would bring weariness and despair, rather than bliss, if the Will were at the same time still occupied; but if the Will is to be entirely annihilated, this action of the Idea must be disconnected from all interest. But with reference to the primary postulates of Hartmann's system themselves, the question may be asked: how can a

Philos. Aufsätze (on Copernicus and the modern conception of the world: Utilitarianism: Love of Enemies and the Platonic *Rep.*; Lessingiana; Kantiana; Joan of Arc in Shakespeare, Voltaire, and Schiller), Leips. 1869; F. X. Schmid, *Entwurf eines Systems der Philos. auf pneumatog Grundlage*, Vienna, 1863–65; C. S. Barach, *Die Wissenschaft als Freiheitsthat*, Vienna, 1869; Wilh. Kaulich, *Ueber die Möglichkeit, das Ziel und die Grenzen des Wissens*, in the Transactions of the Bohemian Scientific Association, VI., 1, Prague, 1868, separately in a new edition, Gratz, 1870; *Handbuch der Logik*, Prague, 1869; *Handbuch der Psychologie*, Gratz, 1870; Alfred Friedmann, *Des Einzelnen Recht und Pflicht, ein philos. Versuch auf naturalistischer Grundlage*, Heidelberg, 1870; J. Bergmann, *Grundlinien einer Theorie des Bewusstseins*, Berlin, 1870.

§ 135. Since the beginning of this century no philosophical systems of such importance and of so powerful influence as those of the 17th and 18th centuries have sprung up outside of Germany; still, the philosophical tradition has everywhere been preserved, and philosophical investigation has, in part, been carried further on. In England and North America philosophical interest has remained chiefly confined to investigations in empirical psychology, methodology, morals, and politics. In France two philosophical tendencies opposed the sensualism and materialism which reigned at the beginning of the century. Of these the one found expression in the eclectic and spiritualistic school which was founded by Royer-Collard as the disciple of Reid, which was further built up by Cousin, who incorporated into its body of doctrines a number of German philosophemes, and in which the Cartesian tradition was renewed. The other tendency was a theosophical one. More recently, Hegelianism has found occasional disciples in France. A doctrine of "positivism," which refuses, in principle, to make affirmations respecting anything that is not a subject of exact investigation, but which yet, for the most part, makes common cause with materialism, was founded by Comte. A modified scholasticism, mostly Thomism, prevails in the Catholic seminaries of France, Spain, and Italy. In Belgium, Holland, Denmark, Sweden and Norway, Russia, Poland, and Hungary, the various schools of German philosophy have exerted successively a not inconsiderable influence. In Italy, the philosophy favored by the church is Thomism; the doctrines of Antonio Rosmini and of Vincenzo Gioberti, in particular, have also found numerous disciples, and in the last years the Hegelian doctrine has been defended by zealous adherents.

"logical idea" exist as the *prius*—even though it be only a non-temporal *prius*—of mind, and a "will" as the *prius* of those things in the world, which alone, as far as our knowledge extends, are the subjects or possessors of will? Have not subjective abstractions been hypostatized? (Of Hartmann's philosophy treat K. Frh. du Pret, *Das neueste philos. Syst.*, in *Im neuen Reich*, 1871, No. 38; M. Schneidewin, *Ueber die neue "Philos. des Unbewussten"* I., Gymn. Progr., Hameln, 1871; G. C. Stiebeling, *Naturwissensch. geg. Philos. Eine Widerlegung d. Hartmannsch. Lehre v. Unbewussten in d. Leiblichk., nebst e. kurz. Beleucht. d. Darwinschen Ansichten üb d. Instinct*, New York, 1871; cf. also below, App. III., *ad* § 134. [Ernst Kapp, *Philosophy of the Unconscious*, in the *Journal of Spec. Philos.*, January, 1870, pp. 84–93.—*Tr.*]

In Vol. IV. of the *History of the Philosophy of Mind*, by Robert Blakey (London, 1848), will be found a comprehensive survey of the philosophical works published from 1800 till about 1848 in Great Britain, Germany, France, Italy, Belgium and Holland, Spain, Hungary, Poland, Sweden, Denmark, Russia, and the United States of America. Cf. J. D. Morell, *An Hist. and Critical View of Speculative Philosophy in Europe in the Nineteenth Century*, London, 1846, 2d ed., 1847 [New York, 1848.—*Tr.*]; *Lectures on the Philosophical Tendencies of the Age*, 1848. Beneke, in his work, *Die neue Psychologie* (Berlin, 1845, pp. 272–350), treats of recent psychological labors in various countries. Articles on the present condition of philosophy in other countries than Germany are contained in the *Zeitschr. für Philos.*, ed. by Fichte, Ulrici, and Wirth, and in the *Gedanke*, ed. by Michelet, as also in the *Philos. Monatshefte* and (with reference to Herbartianism) the *Zeitschr. für exacte Philosophie*. [Also in the *Journal of Speculative Philosophy*, ed. by Harris, St. Louis, 1867 seq.—*Tr.*]

Works on French philosophy in the 19th century are: Ph. Damiron, *Essai sur l'histoire de la philosophie en France au XIXe Siècle*, Paris, 1828 [4th ed., Brussels, 1832.—*Tr.*]; H. Taine, *Les Philosophes français du XIXe Siècle*, Paris, 1857, 3d ed., 1867; F. Ravaisson, *La Philosophie en France au XIXe Siècle*, Paris, 1868 (compare, on the latter work, Etienne Vacherot, *La Situation Philosophique en France*, in the *Revue des Deux Mondes*, Vol. 75, 1868, pp. 950–977); Paul Janet, *Le Spiritualisme français au* 19 *Siècle*, *Revue des Deux Mondes*, Vol. 75, 1868, pp. 353–385.

On the more recent philosophy of Great Britain compare David Masson, *Recent British Philosophy*, London, 1865, 2d ed., 1867; W. Whewell, *Lectures on the History of Moral Philos. in England*, new edit., Lond., 1868; J. McCosh, *Present State of Moral Philos. in England*, London, 1868 (specially on Hamilton and Mill); Thomas Collyns Simon, *The Present State of Metaphysics in Great Britain*, in the *Contemp. Review*, 1868, Vol. viii., pp. 246–261. The *Journal of Specul. Philos.* (St. Louis, 1867 seq.) furnishes valuable contributions for the knowledge of the present condition of philosophy in America.

On the philosophy of law in Belgium, see Warnkönig, in *Zeitschr. f. Ph.*, Vol. 30, Halle, 1857. On philosophy in the Netherlands, cf. T. Roorda, *ibid.*, Vol. x., Tübingen, 1843.

Writers on recent Italian philosophy: Marc Debrit, *Hist. des Doctr. Philos. dans l'Italie contemp.*, Paris, 1859; Auguste Conti, *La Philos. it. Contemporaine* (translated into French by Ern. Naville, Paris, 1865; Italian ed., Florence, 1864, forms a supplement to Conti's Lectures on the Hist. of Philos.); Theod. Sträter, *Briefe über die it. Philos.*, in the *Gedanke*, 1864–65; Raphael Mariano, *La ph. contemp. en Italie*, Paris, 1867; Franz Bonatelli, *Die Philos. in Italien seit* 1815, in the *Zeitschr. f. Philos.*, Vol. 54, 1869, pp. 134–158; Louis Ferri, *Essai sur l'Histoire de la Philos. en Italie au XIX. Siècle*, Paris, 1869.

Damiron distinguishes in the French philosophy of the first decennia of the present century three schools—the sensualistic, the theological, and the eclectic and spiritualistic schools. The sensualistic school, extending over from the eighteenth century into the 19th, was in the first decade of the latter century more and more crowded out by the two others; but there arose, in opposition to these latter, in turn a reaction, which in part (*e. g.*, in Renan and Taine, and in Charles Dollfus, author of *Lettres Philosophiques*, Paris, 1851, 3d ed., 1869) betrayed the influence of the idea which lies at the basis of the Hegelian philosophy of religion and history, while in part (and still earlier) it assumed the form of naturalism. On this whole subject Paul Janet, a pupil of Cousin, reports as follows:*—

French philosophy, at the end of the Revolution and at the beginning of the nineteenth century, was completely under the influence of the school of Condillac. Metaphysics was nothing but the analysis of sensations. As sensation could be considered from two points of view, either with reference to the organs of sensation or with reference to the mind, the school of Condillac was divided into two branches, the physiologists and the ideologists. Physiological Condillacism is represented by Cabanis, ideological Condillacism by Destutt de Tracy.

Cabanis (1757-1808) is the first French author who treated philosophically and

* The following sketch was kindly prepared by Prof. Janet for the 2d edition of this History, to which it was affixed as a supplement. [The present translation is from the French.—*Tr.*]

methodically of the relations of the physical to the moral in man.* His work on this subject is made up of twelve essays, which treat successively of the physiological history of sensations, of the influence of age, sex, temperament, diseases, diet, climates, instinct, sympathy, sleep, of the influence of the moral upon the physical, and of acquired temperaments. The work furnishes a very rich mine of interesting facts. But its spirit is altogether materialistic. The moral, we are told, is simply the physical considered under certain special points of view. The soul is not a being, but a faculty. Thought is a secretion of the brain. Later, in his *Lettre sur les causes premières* (8vo., Paris, 1824; addressed to Fauriel), Cabanis profoundly modified his ideas. He here admits the existence of a cause of the world, endowed with intelligence and will, and concludes in favor of a sort of stoic pantheism.

Destutt de Tracy (1754–1836) modified the doctrine of Condillac in attempting to explain the notion of exteriority, which pure sensation could not give. According to him, it is only our own voluntary motion that teaches us the existence of external objects. Action willed and felt, on the one hand, and resistance on the other, constitute the connecting link between the me and the not-me. The same feeling subject cannot at the same time will and resist itself. Unresisting matter could not be known. A being without motion or whose motions were unfelt by itself would know nothing beside itself. Tracy concludes that an absolutely immaterial being would know only itself. The works of Tracy are (1) *Les Eléments d'idéologie* (2 [4?—*Tr.*] vols., Paris, 1804), and (2) *Commentaire sur l'Esprit des Lois* (Paris, 1819).

Reaction against the Sensualistic School. This reaction has been twofold. We distinguish (1) the Theological School, (2) the Psychological School.†

In the Theological School three principal names are to be distinguished: De Bonald, the Abbé de Lamennais, and Joseph de Maistre.

De Bonald (1754–1840) was the chief of the so-called "traditionalistic" school, the leading dogma of which was the divine creation of language. Revelation, it was taught, is the principle of all knowledge. There are no innate ideas. The whole philosophy of Bonald is controlled by the triadic formula: cause, means, effect. In cosmology the cause is God; the means is motion; the effect is corporeal existence. In politics these three terms become: power, minister, subject; in the family: father, mother, child. De Bonald applied these formulas to theology, and concluded to the necessity of a Mediator. Hence the following proposition: God is to the God-man what the God-man is to man.‡

The Abbé de Lamennais (1782–1854) was the founder of theological skepticism in the nineteenth century. In his *Essai sur l'indifférence en matière religieuse* (1817–1827, 4 vols. 8vo.), he borrows, like Pascal, from Pyrrhonism its arguments against the authority of our faculties. The errors of the senses, the errors of the reasoning faculties, the contradictions in human opinions, all this arsenal of skepticism is employed against human reason. After this destruction of all certitude, Lamennais attempts to re-establish what he has destroyed by reference to a new criterion, namely,

* Cabanis' *Rapports du physique et du moral* were inserted in the two first volumes of the *Mémoires de la cinquième classe de l'Institut* (*classe d'idéologie*) and were published separately in 1812.

† I give this name to this school, which has borne successively several others (Eclectic, and Spiritualistic). The one I propose appears to me the most exact.

‡ The principal works of this author are: *Essai analytique sur les lois naturelles de l'ordre social. La Législation primitive* (2d ed., 1821, 3 vols., 8vo). *Recherches philosophiques* (1818). *La théorie du pouvoir social* (3 vols., 1796). His *Œuvres complètes* were published in 1818.

universal consent. On this basis he seeks to establish the truth of (1) Deism, (2) Revelation, (3) Catholicism.

Joseph de Maistre (1753–1821) was the founder of modern Ultramontanism, of which De Maistre's *Du Pape* (1819–20) is in some sense the gospel. He touched upon philosophy in his *Soirées de St. Pétersbourg* (Paris, 1821), in which he treats of the temporal government of Providence in human affairs. Strongly preoccupied by the theological idea of original sin, he is tempted to see in evil nothing but a means of expiation and punishment. Hence the cruel character of his philosophy, his apology for capital punishment, for war, for the Inquisition, etc. He was not without a certain tinge of illuminism and dreamed of a vast religious renovation, which explains the fact that his name was often cited and invoked by the Saint Simonians.

Psychological School. The characteristics of this school are: (1) that it is entirely independent of theology, (2) that it seeks in psychology for the principles of all philosophy, and (3) that it renews the idealistic and spiritualistic tradition of Carterianism. Its principal representatives have been Royer-Collard, Maine de Biran, Cousin, and Jouffroy.

Royer-Collard (1763–1845), much more eminent as a statesman than as a philosopher, introduced into France the Scotch philosophy. He insists, most especially, like Reid, upon the distinction between sensation and perception, and upon the principles of causality and induction. What is most interesting in his works, is his analysis of the notion of duration. According to him, duration is not perceived in objects, it exists only in ourselves. Duration is distinguished from succession, which presupposes the former instead of being presupposed by it: our conception of duration results solely from the sentiment of our continuous identity, which latter results from the continuity of our action. (See the *Fragmens de Royer-Collard* in Jouffroy's translation of Reid's works.)

Maine de Biran (1766–1824), who has been proclaimed by Cousin the first French metaphysician of the nineteenth century, held successively three different philosophical theories, or rather passed through three periods in one and the same philosophical development.

First Period. This period was signalized by the appearance of the work entitled, *Mémoire sur l'habitude* (1803). In this work Maine de Biran appears as still a member, or rather as thinking himself still a member of the ideological school or school of Condillac; but differences between his doctrine and that of the ideologists become manifest already here. Developing the idea previously expressed by De Tracy (namely, that voluntary motion is at the origin of the notion of exteriority), he founds on this principle the distinction between sensation and perception, which had remained so vague in the school of Reid. Sensation is only the affection produced by external causes; perception is the result of our voluntary activity. Maine de Biran proceeds to point out how these two elements are combined in the case of each of our senses in varying proportions, the perceptions being always proportioned to the motility of the organ. Perception is not, therefore, transformed sensation. Parallel with and related to this distinction is that between imagination and memory. The author afterwards distinguishes between two sorts of habits, active and passive. Finally he develops this fundamental law of habit, "that it weakens sensation and strengthens perception."

Second Period. In this second period Biran is seen founding and developing his own philosophy. The fundamental idea of this philosophy is, that the point of view of a being who knows himself cannot be assimilated to the point of view of a thing

known externally and objectively. The fundamental error of the sensationalists in philosophy is that they form their notions of internal causes, or faculties, after the model of external and objective causes. The latter, not being known in themselves, are nothing but occult qualities, abstract names, representing groups of phenomena, which are lost in one another as fast as new analogies are discovered among these groups. Attraction, affinity, electricity are nothing but names: thus, for the sensationalists, sensibility, understanding, will, and, in general, all subjective causality, are simply and only pure abstractions. But, objects Biran, can the being who feels himself acting, and who is the witness of his own activity, regard himself as an external object? Doubtless the soul, considered absolutely, is beyond the reach of our knowledge: it is an x. But between the point of view of the abstract metaphysicians, which is that of absolute knowledge, and the point of view of pure empiricism, which sees nothing but phenomena and combinations of sensations, there is the point of view of internal reflection, in which the individual subject perceives himself as such, and so distinguishes himself from those occult causes which we suppose to exist externally to us; at the same time he distinguishes himself also from all his modes, instead of confounding himself with them, as Condillac pretended, who saw in the *me* only a collection or succession of sensations. The primitive fact of consciousness is that of voluntary effort (*nisus*), which includes two terms that are distinct, but indivisibly united: will and resistance (not the resistance of another body, but that of our own body). Through this resistance the *me* feels itself limited, and thus it acquires the consciousness of itself, at the same time that it recognizes necessarily a *not-me*. Through its internal consciousness of its activity the *me* acquires the notion of cause, which is neither an innate idea, nor a simple habit, nor an *à priori* form. Biran admits, with Kant, the distinction between matter and form in knowledge. But the form does not consist of empty and hollow categories pre-existing before all experience. The categories are only the different points of view taken in internal experience, in reflection. As for the *matter* of knowledge, it is given by the resisting term, which is the source of diversity and localization. There is also, according to Biran, an internal space, differing from external, objective space: it is the immediate place of the *me*, constituted by the diversity of the points of resistance which the different organs oppose to voluntary action. The point of view dominant in all this philosophy of Biran is that of personality. The principal works of this second period are the *Rapports du physique et du moral*, and especially the *Essai sur les fondements de la psychologie*, published by Naville in 1859. The former work, written in 1811, and crowned by the Academy of Copenhagen, was first published in the year 1834, after the death of the author, by Cousin.

Third Period. Biran's third period ended prematurely, and is therefore incomplete, his final philosophy being nothing more than sketched out. From the Stoic attitude of the second period, Biran passed in the third to a mystical and Christian standpoint. In his *Anthropologie*, his last work, left unfinished, he distinguishes three lives in man: the animal life, or the life of sensation; the human life, or the life of the will; and the spiritual life, or the life of love. Personality, which he had previously considered as marking the highest degree in human life, is now regarded by him simply as a passage to a higher stage, where personality is lost and annihilated in God. (The works of Biran consist of four volumes published by Cousin, in 1840, and of three volumes of *Œuvres inédites*, published by Naville in 1859.)

Victor Cousin (1792–1867), a disciple of Royer-Collard and Maine de Biran, founded himself a school which bore the name of the Eclectic School. His principal

maxim, borrowed from Leibnitz, was that "systems are true by what they affirm, but false by what they deny." Attaching great importance to what had been discovered by previous philosophers, he necessarily made much of the history of philosophy, of which, in France, he is the veritable founder, notwithstanding the merits of De Gérando. He gave a classification of systems, which he reduced under four general heads: Idealism, Sensualism, Skepticism, and Mysticism. At the same time that he recommended eclecticism, he attempted to arrive through the study of systems at a philosophy of his own. His principal effort was to find a middle term between the Scotch and the German philosophy, the one denying all metaphysics with Hume, Brown, and Hamilton, and the other founding an *à priori* metaphysics on the notion of the absolute. He thought that there was a middle way, which was to found metaphysics on psychology. In psychology he made use of the arguments of Kant against the empiricism of Locke. But he himself, in order to escape from the subjectivism of Kant, proposed the theory of the impersonal reason. He believed that reason was subjective only when reflective, but that when spontaneous it grasped immediately the absolute, with which it was identified. All subjectivity disappeared in the immediate and spontaneous act of the pure reason. This theory recalled Schelling's theory of "intellectual intuition," from which Cousin sought to distinguish it by insisting constantly on psychology as the point of departure. Nevertheless, Cousin was then on the way which leads to absolute idealism. He advanced still farther in this direction, in his lectures delivered in 1828, in which is plainly manifested the influence of Hegel, of whom he had seen much in Germany, and whose name he was the first to pronounce in France. In this course he refers all science to ideas, which must, according to him, contain the explanation of all things. There are three such fundamental ideas: the Infinite, the Finite, and the Relation between the Infinite and the Finite. These three ideas are met with everywhere and are inseparable; a God without a world is as incomprehensible as a world without a God. Creation is not simply possible; it is necessary. History is only the development of ideas. A nation, a century, a great man, each is the manifestation of an idea. The course of 1828 marked the culminating point in Cousin's speculative investigations. From that time on he separated himself more from German idealism, and recast his philosophy in a Cartesian sense, maintaining constantly the psychological method as the basis of philosophy. Such is the character of his work on the True, Beautiful, and Good (course of 1817, rewritten and published in 1845 [1853 ?]), the style of which is very eloquent, especially in the part on æsthetics. From this time on he considered philosophy rather as a struggle against bad doctrines than as a pure science. He recommended the alliance of philosophy with religion, and conceded more and more of authority to "common sense." In one word, he went back from Germany to Scotland. In general, the considerable importance of the name of Cousin in France, and even in Europe, is explained less by his philosophical originality than by his striking personal originality, by his influence over a very great number of minds, and by his curiosity, which was inexhaustible and extended in every direction. Besides, his labors with reference to the history of philosophy, and particularly with reference to the Middle Ages, have been of the greatest service. The philoso. works of Cousin consist chiefly of the two courses of lectures (1815–1820, and 1828–30) and of his *Fragmens Philosoph.* (5 vols., 1866). [Cousin's *Elements of Psychology: included in a critical examination of Locke's Essay on the Human Understanding, and in additional Pieces. Translated, with Introduction and Notes, by C. S. Henry.* 4th improved edition, revised according to the author's last corrections, New York, 1856. Cousin's *Lectures on the True, the Beautiful, and the Good*, translated by O. W. Wight, London, 1853; New York, 1854, etc. Cousin's *Course of the History of Modern Philosophy*, translated by O. W. Wight, 2 vols., New York, 1852, etc. Cousin's *Philosophy of the Beautiful*, translated, with notes and an introduction, by J. C. Daniel, New York, 1849.—*Tr.*]

Théodore Jouffroy (1796–1842), the most celebrated of the disciples of Cousin, was distinguished from his master by a spirit of method and of precision which the latter had never possessed. He never departed from the psychological standpoint, and his principal work was to establish with great force the distinction between psychology and physiology, sciences which had been confounded in the school of Cabanis and Broussais. He applied the psychological method particularly to æsthetics and moral philosophy. In æsthetics he arrived at the conclusion that the beautiful is the invisible expressed by the visible; in moral philosophy, he affirmed that the good is the co-ordination and subordination of ends.*

Numerous protests were raised against the philosophy of Cousin, which since 1830 had become almost exclusively the philosophy of public instruction. Without speaking of writers who are still living, nor of the socialistic schools, which are more political than philosophical, we will cite only two philosophers who have attempted to found new philosophical schools: Lamennais and Auguste Comte.

Lamennais (see above). This philosopher, whom we have already met under the name of the Abbé de Lamennais, after having broken with the church by his celebrated work entitled *Paroles d'un croyant*, attempted a new philosophy, which should be purely rational. This doctrine, contained in the *Esquisse d'une philosophie* (1841–1846; translated into German), is perhaps the most vast synthesis which has been attempted in France in the nineteenth century. But it remained an individual and isolated essay, and, notwithstanding its value, found no adepts. Following a method directly opposed to that of the psychological school, Lamennais sets out with a consideration of being in general, and he posits as a primordial fact the co-existence of two forms of being—the Infinite and the Finite, which cannot be deduced the one from the other. God and the universe are indemonstrable. The object of philosophy is not to prove them, but to know them. God, or Substance, has three fundamental, constitutive attributes, each of which is the whole of being, but which are nevertheless distinguished from each other; so that the dogma of one God in three persons is philosophically true. There is besides in God a principle of distinction, what Plato would term τὸ ἕτερον, which permits him to be at once one and multiple. Lamennais attempts to deduce *à priori* the three fundamental attributes of God. In order to be, he says, it is necessary to be able to be; hence the attribute of power. Further, whatever is, must be this or that, must have a form; in one word, must be intelligible. But in the absolute, the intelligible is indistinguishable from intelligence. Finally there must be a principle of union, which is love. The power is the Father; the intelligence, begotten by the power, is the Son; the love, in this triad, is the Spirit. Creation is the realization, outside of God, of the divine ideas. It is neither an emanation, nor a creation *ex nihilo*. It should be termed participation. God extracts all beings from substance, and it is impossible to suppose that anything can exist which is not substance. But this is not a necessary emanation; it is a free act of will. In the created universe matter and bodies are to be distinguished. Matter is nothing but limit; it is the principle of distinction in

* The principal philosophical works of Jouffroy are his *Préface à la Traduction des Esquisses morales de Dug. Stewart* (1826), his *Préface à la Traduction des œuvres de Reid* (1835), *Mélanges* (*premiers* and *nouveaux*, 1833 to 1842), *Cours d'Esthétique* (1843), and *Cours de Droit naturel* (1835). [Jouffroy's *Introduction to Ethics, including a Critical Survey of Moral Systems*; translated by W. H. Channing.—*Tr.*]

God, realized externally. Whatever is positive in bodies, is spirit. But spirit, by the very fact that it is created, is limited. That which in itself is simply distinction becomes in the world of objective reality a true resistant. But matter is not, nevertheless, a nonentity; it is a true reality incomprehensible in itself, which is revealed to us only as the limit of spirit. Hence every created being is at once spirit and matter. God is the only absolutely immaterial being. As the universe represents God (1) from the point of view of substance, which is spirit, and (2) from the point of view of limit, which is matter, so also it represents him from the point of view of his triple personality. The three divine persons, manifested psychologically in man and physically in the three properties of electricity, light, and heat, are manifested at every point in the scale of being, at first under the forms the most concealed, and then under forms growing more and more rich, proceeding always from the simple to the complex. Lamennais applied, therefore, the principle of evolution to the philosophy of nature, and in this respect his philosophy is akin to that of Schelling.

Auguste Comte (1798–1857), founder of the School of Positivists. The doctrine of Auguste Comte, the product at once of the mathematical and positive sciences and of Saint-Simonism, is a combination of empiricism and of socialism, in which the scientific stand-point constantly gained in prominence, in comparison with the socialistic stand-point. There are in Positivism, as in all doctrines, two parts, a destructive part and a constructive part. The former part contains the denial of all metaphysics and all search for first or for final causes. The beginning and the end of things, it says, are unknowable for us. It is only what lies between these two that belongs to us. These insoluble questions [relative to the origin and end of things] have not advanced one step towards solution since the day when they were first raised. Positivism repudiates all metaphysical hypotheses. It accepts neither atheism nor theism. The atheist is a theologian. Nor does it accept pantheism, which is only a form of atheism. The conflict between transcendence and immanence is approaching its end. Transcendence is theology, or metaphysics explaining the universe by causes external to it. Immanence is the watchword of science explaining the universe by causes within the universe. In its constructive part, Positivism may be reduced, in the main, to two ideas: (1) a certain historic conception, (2) a certain co-ordination of the sciences.

The historic conception is that the human mind passes necessarily through three states—the theological, the metaphysical, and the positive. In the first state, man explains the phenomena of nature by reference to supernatural causes, by personal or voluntary interferences, by prodigies, miracles, etc. In the second period, supernatural and anthropomorphitic causes give place to abstract, occult causes, scholastic entities, realized abstractions, and nature is interpreted *à priori:* the attempt is made to construe nature subjectively. In the third state, man contents himself with ascertaining by observation and experiment the connections of phenomena, and so learning to connect each fact with its antecedent conditions. This is the method which has founded modern science, and which must take the place of metaphysics. In proportion as a question becomes susceptible of experimental treatment, it passes from the domain of metaphysics to the domain of positive science. Whatever is not capable of experimental verification, must be rigorously excluded from science.

The second conception of Positivism is the classification and co-ordination of the sciences. The theory of this classification requires us to advance from the simple to the complex. At the basis are the Mathematics; then come, in turn, Astronomy, Physics, Chemistry, Biology, and Sociology. These are the six fundamental sciences,

each of which is necessary to the next following one. The science of society is impossible without the science of life, and the latter is impossible without the science of chemistry; chemistry, again, presupposes physics, which itself presupposes astronomy (?) and mathematics. History justifies this order which logic imposes. It is thus seen that the positivistic theories bear above all the character of views respecting method and classification. No metaphysics should be asked of this school, for it expressly denies the possibility of metaphysics. The psychology of Positivism is a part of physiology. Its doctrine of morals is in no respect original; it rejects the doctrine of personal interest. We may add, finally, that in a period of his life, which has been termed the subjective period, M. Comte had arrived at a certain conception of religion and at a real form of worship, of which humanity was to be the object. This part of his philosophy has been repudiated by the most eminent of his disciples, M. Littré, who is now publishing a complete edition of the works of Comte. Of these the most important is the *Cours de philosophie positive* (Paris, 1839. [English translation by Miss Martineau, London, 1853, and New York.—*Tr.*])

To the above account by Janet we add the following further bibliographical notices: On Lamennais cf. Blaize *Essai biogr.*, 1858; Binaut, in the *Revue des Deux Mondes*, 1860 and 1861; O. Bordage, *La philos. de L.*, Strasburg, 1869. Of Royer-Collard, A. Philippe (Paris, 1858) and Barante (Paris, 1861) have written. Cousin's works have been published in the following complete edition: *Œuvres de V. Cousin*, 5 series: I.–II.: *Cours de l'histoire de la philosophie moderne*, Paris, 1846–48, III.: *Fragmens philosophiques*, 1847–48, IV.: *Littérature*, 1849, V.: *Instruction publique*, 1850. [For English translations, see above, pp. 342, 343.—*Tr.*] Of Cousin treat C. B. Fuchs (*Die Philos. V. C.'s*, Berlin, 1847), A. Aulard (*Etudes sur la philosophie contemporaine: M. Victor Cousin*, Nantes, 1859), and J. B. Alaux (*La philosophie de M. Cousin* [forms a part of the *Bibliothèque de philos. contemp.*], Paris, 1864); the doctrine of Cousin is frequently referred to by J. B. Meyer, in reviews in the *Zeitschr. für Philos.*, especially in an article in Vol. 32, 1858, pp. 276–290, on *Cousin's philos. Thätigkeit seit* 1853 cf. further P. Janet, *Victor Cousin*, in the *Revue des Deux Mondes*, Vol. 67, 1867, pp. 737–754; Ch. Secrétan, *La philosophie de V. Cousin*, Paris, 1868; Mignet, *V. Cousin*, Paris, 1869. [The first article in Hamilton's *Discussions*, etc., is a review of Cousin's *Cours de philosophie, Introduction à l'histoire de la philos.*—*Tr.*]

Among the pupils of Cousin belongs Bouillier (see above, § 114, Lit.), eminent for his comprehensive and accurate History of Cartesianism. Others, as, for example, Ravaisson, Haurêau, Rémusat, Damiron, Saisset, Janet, and J. Simon, were incited by Cousin to engage especially in critical studies in the field of the history of philosophy. Emile Saisset, the translator of Spinoza (see above, § 115, Lit.), published also an *Essai de Philosophie Religieuse*, Paris, 1859 [translated into English, together with two extracts from other writings of the author, under the titles: *Modern Pantheism, Essay on Religious Philosophy*, 2 vols., Edinburgh (T. and T. Clark), 1863.—*Tr.*], and *Le Scepticisme: Aenésidème, Pascal, Kant* (see above, § 122, Lit.). Paul Janet has published a criticism of Büchner's materialism, in *Le matérialisme contemporain* (forms a part of the *Bibl. de philos. contemp.*, Paris, 1864; English translation by G. Masson, London, 1866; German translation by K. A. von Reichlin-Meldegg, with a preface by I. H. Fichte, Paris and Leipsic, 1866), also a *Philosophie du bonheur* (Paris, 1864), and *Le cerveau et la pensée* (Paris, 1867). E. Caro, who has written upon the Philosophy of Goethe (see above, § 115, Lit.), has also published *Le matérialisme et la science* (Paris, 1867); cf. Caro's address on *La finalité instinctive dans la nature*, delivered at the Sorbonne and printed in L. A. Martin's *Annuaire philosophique* (Paris, 1869, pp. 253–262). Ravaisson, Thurot, and Jules Simon (who has also written *Le devoir*, Paris, 1854, *La religion naturelle*, 1856, *La liberté de conscience*, 1857, etc.), have made valuable contributions to the history of ancient philosophy, Rémusat and Haurêau to the history of mediæval philosophy, and Damiron and Chr. Bartholomès (1818–1856), among others, to the history of modern philosophy; in addition to the above-cited works of the latter (§§ 111 and 117), we may mention here his (theistic) *Histoire critique des doctrines religieuses*, Strasburg, 1855. Th. H. Martin, the eminent expositor of Plato's *Timæus*, is the author of *Les sciences et la philosophie, essais de philos. critique et religieuse*, Paris, 1869. The stand-point of Charles Renouvier (*Essai de critique générale*, Paris, 1854; *Science de la morale*, St. Cloud, 1869 [*Manuel de philos. ancienne*, 2 vols., Paris, 1844, *Manuel de philos. moderne*, 1 vol., Paris.—*Tr.*]) has been especially influenced by the study of the critical philosophy of Kant. Pierre Leroux, who has written a *Réfutation de l'éclecticisme* (Paris, 1839), and *De l'humanité* (Paris, 1840), incorporated (as did also Proudhon, 1809–1865) into his socialistic doctrine many ideas derived from German philosophy, and especially from Hegelianism. The investigations of Bastiat and others, in political economy, bear, in numerous instances, upon philosophical problems. The influence of German speculation is manifested, in many respects

in the works of Ernest Renan (author of the *Vie de Jésus*, Paris, 1863 [English translation, New York, Carleton.—*Tr.*], as also of valuable works on mediæval philosophy, see above, Vol. I., §§ 25 and 26), H. Taine (*Philosophy of Art*, English translation, New York, Holt & Williams), Jules Michelet (*Bible de l'humanité*, Paris, 1864), and other living French thinkers, including E. Vacherot (*La métaphysique et la science*, Paris, 1858, 2d ed., Paris, 1862). Of Comte treat Littré (Paris, 1863), J. Stuart Mill, (*Comte and Positivism*, 2d ed., revised, London, 1866 [American editions, Boston, Spencer, and Philadelphia, Lippincott; originally published in the *Westminster Review* for April, 1865.—*Tr.*]), Ch. Pellarin (*Essai crit. sur la philos. positive*, Paris, 1866). Compare *La philos. positive*, a Review directed by E. Littré and G. Wyrouboff, Paris, 1867; *La philos. posit. d'Aug. Comte condensée par Miss Harriet Martineau, traduc. française*, Bordeaux, 1871 seq. [On Mill's *Comte*, cf. G. H. Lewes, *Fortnightly Review*, Vol. 6, 1866.—*Tr.*]—Among the most noteworthy Swiss philosophers, writing in the French language, are (or have been) Alexander Vinet, Reformed theologian (1797–1847), who wrote, among other things, *Essais de philos. morale et de morale religieuse* (Paris, 1837), *Etude sur Blaise Pascal* (2d ed., Paris, 1856), *Moralistes du 16. et 17. siècle* (Paris, 1859), *Hist. de la litt. franç. au 18. siècle* (Paris, 1853), and *au 19. siècle* (2d ed., Paris, 1857), and Charles Secrétan (see above, § 134), who has written a *Philos. de la liberté*, a *Philos de Leibnitz*, *Recherche de la méthode*, and *Précis de philosophie*.

In Belgium the doctrines of Krause, represented formerly by Ahrens, and now by Tiberghien and others, are in the ascendant at the University of Brussels. In Liege, Leroy has published a work on philosophy in the province of Liege during the 17th and 18th centuries (Liege, 1860). Alphons Kersten, of the same city (died in 1863), maintained, in opposition to Bonald's doctrine of the revealed character of language, the natural origin of language. A modernized Cartesianism has been defended at Ghent by Huet, a pupil at Paris of Bordas-Dumoulin (who, while retaining the doctrines of creation, of the fall of man, and of redemption, desired at the same time a philosophical "renovation of Christianity," a progress of nations toward Christian brotherhood and unity under the dominion of truth and reason; see *Le Cartésianisme ou la véritable rénovation des sciences, ouvrage couronné de l'Institut, suivi de la théorie de la substance et de celle de l'infini, par Bordas-Dumoulin, précédé d'un discours sur la réformation de la philosophie au 19. siècle, pour servir d'introduction générale, par F. Huet*, Paris, 1843; cf. Huet, *La science et l'esprit*, Paris, 1864; Huet, *La révolution religieuse au 19. siècle*, Paris, 1867; *La révolution philos. au 19. siècle*, Paris, 1870). The same doctrine was maintained by Callier (died 1863), Huet's pupil. Joseph Delbœuf, who taught at Ghent from 1864 to 1866, has occupied himself in investigations relative to the philosophy of mathematics, to logic, and to the theory of sensuous perception (*Prolégomènes philosophiques de la géométrie et solution des postulats*, Liege, 1860; *Essai de logique scientifique, prolégomènes, suivis d'une étude sur la question du mouvement considérée dans ses rapports avec le principe de contradiction*, Liege, 1865; articles in the *Bulletins* of the Brussels Academy on illusions of the senses, and on the musical scale). Delbœuf's successor, Oscar Merten, a pupil of Leroy, has published a work entitled *De la génération des systèmes philosophiques sur l'homme*, Brussels, 1867. In Louvain, Ubaghs, as a disciple of Bonald, taught a doctrine of supranatural "ontologism," which, however, like Güntherism in Germany, gave offence in certain respects to the Church and was specially opposed by the Jesuits, who also have their representatives among the teachers of philosophy in Namur and Ghent. Since the retirement of Ubagh, Abbot Cartuyvels has taught philosophy in Louvain. Of great philosophical importance are the investigations of Laurent in the department of international law and the history of civilization, and of Quetelet relative to criminal and moral statistics in general. (A. Quetelet, *Physique sociale*, 1835 [*Anthropométrie, ou Mesure des différentes facultés de l'homme*, Brussels, 1871.—*Tr.*]). In Holland, the practice recommended by Francis Hemsterhuis (1720–1790) and Daniel Wyttenbach (1746–1820), of philosophizing on the basis of the ancients, is still dominant. (Of Hemsterhuis treat G. Ottemar [in Latin, Louvain, 1827]. E. Grucker, *François Hemsterhuys, sa vie et ses œuvres*, Paris, 1866, and Groneman, Utrecht, 1867). Philip William Van Heusde (1778–1839), the Platonist, taught in Utrecht. Beside various works relative to the history of philosophy, by Roorda and others, which deserve notice, especial mention should be made of the investigations of C. W. Opzoomer in logic, æsthetics, and religious philosophy. Opzoomer's logical manual, on the "Method of Science," has been translated from Dutch into German by C. Schwindt (Utrecht, 1852), and his work on "Religion," by F. Mook (Elberfeld, 1869).—In Denmark, as, formerly, Kantism and Schellingism, so more recently Hegelianism has found adherents. Feuerbach's doctrines, among others, have also produced an influence in Denmark, although they have been modified by Sören Kierkegaard (who died in 1854) and Rasmus Nielsen, of Copenhagen, who teach that the sphere of subjective truth, corresponding with emotion and volition, has at least equally legitimate claims to recognition with the sphere of objective truth, which corresponds to thought, and that faith should not be judged by the laws of knowledge nor knowledge by the laws of faith. Opposing this distinction between faith and knowledge, Bröchner (of Copenhagen) holds fast to the Hegelian conception of the relation between religion and philosophy. In Norway M. J. Monrad (of Christiania) teaches a form of Hegelianism; holding as a fundamental idea that life consists in a continual overcoming and reconciliation of antagonisms, he combats the absolute separation of faith from knowledge and seeks for a reconciliation of the two which shall be acceptable to the Church, in the doctrine that faith anticipates the infinite goal, toward which science—always

growing, and never complete—is tending. In Sweden the Kantian philosophy had its representative in D. Boëthius, and the philosophy of Fichte and Schelling in Benjamin Höijer, whose essay *Om den philosophiska constructionen* (Stockholm, 1799) was published in German under the title *Ueber die philos. Construction* (*ibid.*, 1801). Höijer argues against Kant's dictum, that construing by conceptions is possible only in mathematics, and not in philosophy; he says that Kant himself in the *Metaph. Principles of Physics* construed matter philosophically; the starting-point of all construction is found in a pure act, *i. e.*, in an absolute, infinite activity, prior to the Ego, its product; the method by which construction proceeds is the method of limitation. Christoph Jakob Boström (of whom Ed. Mätzner writes in the *Philos. Monatshefte*, III., 3, 1869, and whose views lie at the basis of Leander's essay in the same journal, III., 2, p. 111) adopts in essential particulars the doctrines of Leibnitz, combining them with Platonic doctrines and modifying them so as to teach that the inferior monads or ideas are contained in the superior, as smaller numbers are contained in greater ones. Among Boström's pupils is Ribbing, who has written upon Plato (see above, Vol. I., § 40). Hegelianism is represented by J. Borelius (formerly in Calmar, since 1866 professor in Lund). In Transylvania, Beneke's psychology and pedagogic theory, and in Poland and Hungary the doctrines of Hegel have exerted an influence. Into Russia, also, German philosophy has made its way sporadically. Of Modern-Greek works, the following, among others, deserves mention: Θεωρητικῆς καὶ πρακτικῆς φιλοσοφίας στοιχεῖα, ὑπὸ Βραΐλα Ἀρμένη καθηγητοῦ τῆς φιλοσοφίας ἐν τῇ Ἰονίῳ ἀκαδημίᾳ (at that time Secretary of the Senate of the Ionian Islands), Corfu, 1863. In Spain there prevails a mild form of Scholasticism, which, together with its abstruse form, has lost much of its former rigor and profundity. Among its most eminent representatives is Balmes, several of whose works have been translated into German by Lorinser. In the form of an opposition to Scholasticism, Krauseanism has had some influence in Spain. Julio Sanz del Rio, mentioned above (§ 128) as a follower of this doctrine, died Oct. 12, 1869. [The English and Italian bibliography given by Ueberweg is incorporated into the following Appendices.—*Tr.*]

APPENDIX I.

PHILOSOPHY IN GREAT BRITAIN AND AMERICA.

A SUPPLEMENTARY SKETCH.

By NOAH PORTER.

Philosophy, as a pure or speculative science, has attracted the exclusive attention of fewer devotees among the English-speaking scholars than among those of France or Germany. But it should not be inferred that Philosophy has been generally neglected. On the contrary, philosophy has been more readily and more widely applied to Ethical, Political, and Theological uses, on account of the greater freedom of the English peoples, and their more practical spirit. The pressure of discussion and of practical necessity has often forced many of the ablest thinkers in all these departments to develop the underlying philosophical principles which were required to sustain their practical conclusions. In this way many of the special investigations of leading English writers have been greatly enriched by philosophic thought at once comprehensive and profound. Though English philosophy has less systematic completeness and formal exactness than the philosophies of France and Germany, it is far more original and copious than many critics and historians have acknowledged. While on the one hand there are fewer purely speculative works in English literature than we should naturally desire to find, there are many profound philosophical discussions interwoven in the substance of the manifold ethical, political, and theological treatises in which this literature abounds. The speculations of many English writers are no less profound because they are intertwined with practical discussions, and overshadowed by their applications. The contributions to philo-

sophy of not a few able thinkers are none the less real because they have been rendered in the service of some important practical interest. It follows, that a sketch of the progress of philosophic thought in England and America requires us to notice eminent writers and thinkers who have not devoted themselves exclusively to purely speculative questions, but who notwithstanding have made important contributions to philosophic thought.

Such a sketch is the more necessary as an appendix and supplement to Ueberweg's history of English philosophy, inasmuch as its author, in common with most of the continental historians, finds little evidence of any other philosophical tendency than that of Empiricism, and therefore gives only a partial view of some writers who represent this direction in a general way, and altogether overlooks a considerable number of writers who in those discussions in which philosophy is applied to special questions, assume or teach a philosophy of an opposite character.

CHAPTER I.—English Philosophy before Locke.

§ 1. The first writer whom we notice is Richard Hooker, a writer somewhat earlier than Lord Bacon, whose philosophical reach and sagacity is for many reasons deserving of attention. Cf. Frederic Denison Maurice. Modern Philosophy, etc., Lond., 1862, chap. v.

Richard Hooker, 1553–1600, a native of Heavy-Tree, near Exeter, a Student, Tutor and Fellow of Corpus Christi College, Oxford, Rector at Drayton-Beauchamp, Buckinghamshire, 1584; Master of the Temple, 1585; Rector of Boscomb, Wiltshire, 1591; Prebendary and Sub-dean of the Cathedral of Salisbury; Rector of Bishopsbourne, in Kent, 1595, where he died.

His principal work, Of the Laws of Ecclesiastical Polity, was published, the first 4 books in 1594, the 5th in 1597, the 7th in 1617, the 6th and 8th in 1648. The eight books, with a few sermons and tracts, were published in Lond., 1662, fol.; 2d edition, with Walton's life, 1666, fol.; other editions are, Lond., 1676, '82, 1705, '19, '23; Dublin, 1721; Oxf., 1793, 1807, '20, each 3 vols. 8vo; Lond., 1825, 2 vols. 8vo; 1830, with notes and extracts by Hanbury, a dissenter, 3 vols. 8vo. Arranged by Keble, Oxf., 1836; 4 vols. 8vo, 1841; 3 vols. 8vo, 1845; do., without Keble's notes, 1845, 1850, 2 vols. Other editions, Lond., 1839, 1845, 2 vols. 8vo.

Hooker is called by Hallam "the finest as well as the most philosophical writer of the Elizabethan period." All his writings are in form and purpose theological rather than philosophical. His Laws of Ecclesiastical Polity are professedly a vindication of the Government of the Church of England as established by the Protestant Sovereign and Parliaments. In order to defend this successfully, the author devotes the first two books to a preliminary discussion of the philosophical principles involved, and sets forth a sort of *prima philosophia* concerning law in general, in its relations to the Divine essence and activity, to the physical and spiritual universe, to civil and ecclesiastical societies, and to the ways in which it can be known by man, through natural and supernatural reason. His other writings consist of discussions concerning points of doctrine controverted by the Romanists and Puritans, in which there is recognized a system of philosophy which is more definitely conceived and more firmly held than in the writings of any other theologian of his time.

The particular principles for which Hooker deserves mention are his clear and satisfactory conception of the regularity of the operations of the universe for some "preconceived end;" the definition of law as assigning to each thing its kind, appointing "its form and measure of working;" the applicability of law to God, in the memorable sayings, "the Being of God is a kind of Law to his working," "God is a Law both to himself and to all other things besides." His actions and effects are limited though he is infinite, because his actions correspond to some end,—"not that anything is made to be beneficial unto him, but all things for him to show beneficence in them." God's will is limited by his reason; this reason exists though it is often unknown to man. Law is properly applied to the properties and powers of nature. "Obedience of creatures to the law of nature is the stay of the whole world." The apparent defects in the working of these laws are incident to the malediction on account of sin. This natural generation and process of all things receiveth order of proceeding from the settled stability of divine understanding. These laws hold good not only of natural agents by themselves, but also as related to one another, binding them to serve one another and to serve the common good.

As God moves natural agents as an efficient, so he moves intellectual creatures, e. g. angels, both the unfallen and the fallen. Of the unfallen the actions are threefold, love, adoration, and imitation; the reason or law of the fall of any is by the reflex of their understanding upon themselves, substituting pride for the love, adoration and worship of God.

The laws of created beings—and of man conspicuously—provide, that as capable of progress he is impelled by desire. Man being made in the likeness of his Maker resembles him in being free—we are not tied as natural agents. The two principal fountains of human action are knowledge and will. Will differeth from that inferior natural desire which we call appetite. "Appetite is the will's solicitor, and the will is appetite's controller." "Evil as evil cannot be desired." "Goodness doth not move by being, but by being apparent." "Our felicity therefore being the object and accomplishment of our desire, we cannot choose but wish and covet it." "Goodness in actions is like unto straitness, wherefore that which is done well we term right." "That which is good in the actions of men, doth not only delight as profitable, but as amiable also." There are two ways of discerning goodness—by their causes and their signs. "The most certain token of evident goodness is, if the general persuasion of all men do so account it." "The general and perpetual voice of men is as the sentence of God himself." "That which all men have at all times learned, nature herself must needs have taught." "Laws for intellectual beings is their intuitive intellectual judgment concerning the rarity and goodness of the objects which set them on work." The rule of voluntary agents is the sentence that Reason giveth concerning the goodness of those things which they are to do. The sentences which Reason giveth are some more, some less general. The knowledge of what man is in himself, and in relation to other beings, is the mother of the principles of the law of nature for human actions. This law is mandatory, permissive or admonitory. Laws of Reason are investigable by Reason only, without supernatural revelation. The laws of a commonweal are orders agreed on, touching the manner of living in society. All public requirement arises from deliberate advice, consultation, and composition between men. Nature requires some kind of government, but leaves the choice arbitrary which kind each shall be. Laws not only teach what is good, but exert a constraining force. The authority of the ruler comes either from a commis-

sion derived directly from God, or from the consent of the governed. This consent is explicit or implied. Positive laws are twofold: those which establish some duty to which men were bound by the Law of reason, or else those which make that a duty which was not so before, *i. e.*, they are mixed or human. The third description of Laws is that which holds between bodies politic, *i. e.*, the Laws of nations. These are primary and secondary. Concerning the commerce between Christian nations the force of general councils is great.

The good of man is threefold: sensual, intellectual, and spiritual or divine. The last comes in the way of reward to perfect obedience. Man having failed of this by the way of nature, God has provided a way that is supernatural, on condition of faith, which includes hope and charity. But supernatural duties do not exclude those which are natural. The Scriptures are full of the laws which concern these. It is great advantage that so many of these laws are written and were not entrusted to tradition. The completeness of the Scriptures in respect to every Law needful to be known, is relative, not absolute. But the supernatural light does not exclude the light of nature, which it supposes and to which it is supplementary. Some of the laws in the Scriptures are mutable. Positive laws do not always bind, but are conditional. Those are constant, whether natural or supernatural, which belong to man as man in those relations which are permanent. The matter of such laws alone is constant. On the other hand, those laws, even though supernatural, which were ordained for special and inconstant relations, are not of permanent force. Again; in societies, both civil and ecclesiastical, laws respecting these changing relations become authoritative simply by being prescribed by the majority, through its representatives or constituted authorities.

The principles enumerated in the first book of Hooker's great work, and vindicated against objections in the second, are applied in the six books which follow to the defence of the ecclesiastical polity established by law. The principles themselves are a summary of the doctrines fundamental to politics and ethics and theology, which, in a certain sense, were re-elaborated by one of the ablest philosophers of his time, who was well acquainted with the pagan and Christian writers, and was largely endowed with sagacity and comprehensiveness. The philosophical system of Hooker may be fairly accepted as akin to that of Lord Bacon; only it was far more explicit and comprehensive in its statements and more systematic in its form and completeness. It could not fail to exert a powerful influence on all subsequent discussions in metaphysical, ethical and political philosophy, anticipating as it does many of these discussions by providing the principles for their adjudication.

§ 2. Sir John Davies, 1570–1626, should be named next after Hooker, and before Lord Bacon. He was born in Wiltshire, and educated at Queen's College, Oxford, in 1603 Solicitor-General in Ireland, and Judge of Assize, 1620–1. In 1626 he was appointed Lord Chief Justice of England, but died suddenly before the ceremony of installation. His poem, On Human Knowledge and the Human Soul, like the first book of Hooker, exhibits the current psychology and philosophy of England in his time, though more in detail. The title of the 2d edition, 1602, is *Nosce Teipsum:* This oracle expounded in two Elegies: 1st, Of Human Knowledge; 2d, Of the Soul of Man, and the Immortality thereof: 1st ed., 1599. It gives a transcript of that better scholastic doctrine of the soul which combines the teachings of both Aristotle and Plato, when purified from many of the extreme subtilities ingrafted upon them by the doctors of the schools, and adds the results of the dawning good sense which attended the Reformation and the Revival of Classical Learning. For the history of philosophy it is of great significance, as it enables the student to understand the psychology and philosophy which were current

before the introduction of the philosophies of Descartes on the one hand and of Hobbes and Locke on the other. The versification is uncommonly successful. It may be regarded as a triumph of diction in the expression of subtle thought in concise and fluent verse. It is by no means free from the conceits which were current in all the versification of its time, but it is remarkable in the history of literature for the skill with which it conducts philosophical discussion in the forms, and with somewhat of the spirit of elevated poetry. The positions which the author maintains are: 1. That the soul is self-subsistent without the body. 2. It is more than a perfection or reflection of the sense; concluding his argument thus:—

> "There is a soul, a nature which contains
> The power of sense within a greater power;
> Which doth employ and use the sense's pains,
> But sits and rules within her private bower."

3. The soul is more than the temperature of the humors of the body. 4. The soul is a spirit. 5. The soul is created, not traduced. 6. Satisfactory reasons can be given why it is united with the body. 7. The soul is united to the body not as a man in a tent, or a pilot in a ship, or a spider in its web, or the image in the wax, nor as water in a vessel, nor as one liquor is mingled with another, nor as heat in the fire, nor as a voice through the air:

> "But as the fair and cheerful morning light
> Both here and there her silver beams impart,
> And in an instant doth herself unite
> To the transparent air in all and every part.
> * * * * * *
> So doth the piercing soul the body fill,
> Being all in all, and all in part diffused."

The soul has (*a*) the vegetative power by which the body is nourished; (*b*) the five senses which are the outward instruments, which like porters admit knowledge, but do not perceive; (*c*) the imagination or common sense or sensory, which perceives, retains and transmits to the (*d*) fantasy which compounds, compares and tries these forms; (*e*) the sensitive memory or the memory of sense objects; (*f*) the moving forces or passions connected with such objects; (*g*) the soul's capacities to move and regulate the body; (*h*) the intellectual power, of which the generic name is wit, which acts as abstraction, and reason,

> "When she rates things and moves from ground to ground,"
> "But when by reason she the truth hath found,
> And standeth fixed, she understanding is."

> "When her assent she lightly doth incline
> To either part, she is opinion's light;
> But when she doth by principles define
> A certain truth, she hath true judgment's sight."

Besides these there is the capacity for innate ideas:—

"Yet hath the soul a dowry natural,
And sparks of light, some common things to see;
Not being a blank where naught is writ at all,
But what the writer will, may written be.

For nature in man's heart her laws do pen,
Prescribing truth to wit, and good to will;
Which do accuse, or else excuse all men,
For every thought or practice, good or ill."

To these are added the powers of will and of the intellectual memory. These powers are severally related to one another and stand in mutual dependence. To this analysis of the powers of the soul is subjoined an argument for its immortality.

§ 3. Lord Herbert of Cherbury, 1581–1648, though more influential as a writer upon religion than upon philosophy, was not without important influence upon the course of speculative thinking in England. (Cf. Sir William Hamilton's Works of T. Reid, p. 781.) No one can understand the polemic of Locke's Essay without studying Lord Herbert's *De Veritate*. Its chief doctrines are the following: There is such a thing as truth. It is as permanent as existing things. It is everywhere, pertaining to things which are, and which are feigned to exist. It is self-manifest, and so is distinguished from that which appears to be true. There are as many kinds of truth as there are different kinds of things. These differences in things are made known by our natural faculties. So far as our natural faculties are capable of and analogous to the truth of things, we have truth of conception. The truth of all these truths is the highest, *viz.*, the truth of the intellect. This supposes truth of things, truth of appearance, and truth of conception, and their harmonious conformation with one another.

There are thus four kinds of truth: truth of things, which concerns the object as it is in itself; truth of appearance, which concerns the object as it is manifested; truth of conception, which concerns the object as it is apprehended by us; and truth of intellect or judgment. The first is the inherent conformity of a thing with itself; the second, the conditional conformity of appearances with things; the third, the conditional conformity of our faculties and things as they appear; the fourth, the due conformity between the conformities already named. All truth is (*i. e.*) involves relation or agreement. The conformity of truth of appearance and truth of apprehension with their objects depends on the conditions provided in the faculties concerned. The truth of the intellect depends on the mutual conformity of these other truths, conditional on certain knowledges (*notitiæ*) or principles which are common to every sane and perfect man, by means of which he judges of all individual objects that come under his observation. These respect the good and the beautiful as well as what is commonly called the true.

The faculties are four: natural instinct, inner sense, external sense and the discursive faculty (*discursus*). Natural instinct is the faculty by which we apprehend and apply without reasoning the common notions as to the relations of things, especially such as tend to the conservation of the individual, the species, and the entire universe. These common notions, though excited by the senses, are not conveyed by them; they are implanted in us by nature, so that God by them has imparted to us not only of his image but of his wisdom. These are distinguished into the original and the derived. The first are distinguished by six marks or criteria; priority; independence; universality; certainty, so that no man can doubt them without putting off his nature;

necessity, that is, usefulness for the preservation of man; lastly, intuitive apprehension or self-evidence. Natural instinct is present in and modifies the three other faculties.

The inner sense includes all those powers which under the direction of natural instinct have to do with the particular forms of the agreeable and disagreeable, and of the good and evil, whether these are dependent on the body or the soul. These are permeated by liberty of choice (*unicum illud naturæ miraculum*). The common sensory, *communis sensus*, of the internal senses is the conscience, and depends on the faculty or capacity to be conscious. By means of common notions it judges of what is good and evil in their various degrees, and thus reaches the judgment of what ought to be done.

The external senses are those which depend on the special effects of external objects on the external organs jointly with corresponding internal senses and natural instincts.

The discursive faculties (*discursus*) give that knowledge in respect to objects furnished by the external and internal sense, which depends on certain capacities for inquiry or investigation, and the common notions. It respects existences, the quiddities, the qualities, the quantities, the relations, place, time, and especially their causes, means and ends.

Man is distinguished from animals not by the gift of reason, but pre-eminently by the capacity for religion. The five common notions of natural religion which are possessed by all men are the following: (1) That there is a God; (2) That he ought to be worshipped; (3) That virtue and piety are the chief elements of worship; (4) That repentance is a duty; (5) That there is another life, with rewards and punishments.

A revelation is possible to individuals. Lord Herbert contended that a special revelation was made to himself, but nothing can be admitted as revealed which contradicts these five primary principles or common notions, and anything beyond can be of no importance to the whole human race, and therefore no such revelation should be made public.

The writings of Herbert were not without permanent influence. He gave impulse and character to that great movement in England of religious rationalizing which is known as English Deism, and which has in many ways been significant in shaping the course of all subsequent speculation. Shaftesbury, Tindal, and others followed him in accepting some of the results of his metaphysical inquiries and more of their applications. His views of the nature and possibility of revelation are kindred to those enforced by Kant in his *Religion within the limits of pure reason*, which indeed are common to the Old and the New Rationalism.

His speculations concerning the truth of things and its relation to the truth of appearance anticipate those of Locke, and the profounder and more wide-reaching researches of Kant. Other points of similarity between him and Kant might be adventured. His treatise De Veritate attracted the attention and elicited the comments of Gassendi, Op., iii., 411; also Descartes, Œuvres, ed. Par. viii., 138; 168. Cf. Hallam, Lit. of Europe, III. c. ii., Sec. 77, c. iii., 21–28; also Leland's view of the principal Deistical writers, etc., Letters i. and ii.

§ 4. Nathaniel Culverwell, 1615–1652, Fellow of Emmanuel Coll., Cambridge, was a contemporary of Herbert, and his treatise on *The Light of Nature* was probably suggested by Herbert's *De Veritate*, as may be inferred from occasional allusions to his lordship's work. It was published after the death of the author, Lond., 1652, also 1654, 1661; Oxford, 1669, also ed. Brown, Edin. 1857. Culverwell was a student and Fellow of Emmanuel College, which was the original nursery of most of those who were afterwards so conspicuous as the "Cambridge Latitudinarians" (*vide* J. Tulloch,

Rational Theology and Christian Philosophy in the 17th century, Lond., 1872). Culverwell writes from a Christian standpoint, and was doubtless aroused by Herbert's attack upon Christianity from the side of Reason. His doctrine of the sources of knowledge is thus stated: 'There are stamped and printed upon the being of man some clear and indelible principles, some first and alphabetical notions, by putting together of which it can spell out the law of nature.'—'As in the noble mathematical sciences there are not only some first ἀἰτήματα, which are granted as soon as asked, if not before, etc., in the very same manner, nature has some *postulata*, some προλήψεις, which she knows a rational being will presently and willingly assent to.' On the other hand, there is no innate light, but only the power and principle of knowing and reasoning. Culverwell urges against innate ideas as such—'Had you such notions as these when you first peeped into being? at the first opening of the soul's eye? in the first exordium of infancy? Had you these connate species in the cradle? and were they rocked asleep with you? or did you there meditate upon these principles "*totum est majus parte*," and "*nihil potest esse et non esse simul.*"' "Never tell us that you wanted organical dispositions, for you plainly have recourse to the sensitive powers, and must needs subscribe to this, that all knowledge comes flourishing in at these lattices." "Sense is the gate of certainty,—the understanding is the throne of it; first principles and common notions with those demonstrations that stream from them, they only remain, * * and he that will not cast anchor upon these condemns himself to perpetual skepticism." But morality is founded in the divine nature. 'It is an eternal ordinance made in the depth of God's infinite wisdom and counsel, for regulating and governing of the whole world, which yet had not its binding virtue in respect of God himself, who has always the full and unrestrained liberty of his own essence, that it cannot bind itself.' Culverwell dissents from Hooker, in making moral obligation to proceed from the divine will. 'Not the understanding, but the will of the lawgiver makes a law.' 'Ideas were situated only in the understanding of God, whereas a law has force and efficacy from his will.' In respect to the relation of faith and reason he holds 'that all the moral law is founded in natural and common light—in the light of reason,' and that there is nothing in the mysteries of the gospel contrary to the light of reason. Faith demands the services of reason to evince the necessity of revelation, to test its evidence, to assist the interpretation of revelation, and to vindicate and harmonize its doctrines. The truths proper to faith are undiscoverable by reason. Faith is the reception of the divine testimony, remotely by its outward evidence, but proximately by its inward light as discerned through grace. Its operation is consistent with reason, and so far from superseding reason, demands its constant exercise.

The Cartesians and the Cambridge Men.

§ 5. To understand the state of philosophical opinion in England before and after the time of Locke, and, indeed, in order to interpret the meaning of Locke's Essay, we should do ample justice to those English writers who took a direction opposed to that of Hobbes. The influence of Hobbes was owing more to the political and ethical affinities of his opinions, than to the scientific authority of his system, if it is worthy to be called a system. The support which the politics of the Leviathan lent to the despotic policy of the restored monarchy of Charles II., and the sanction which his materialistic and necessitarian ethics lent to the corrupt morals of the court and its adherents, made his philosophy the object of general discussion and active controversy. "The philosopher of Malmesbury," says Warburton, "was the terror of the last age.

* * The press sweat with controversy, and every young churchman would try his arms in thundering on Hobbes' steel cap." Not only the clergy of all orders in his own time, but the moralists and publicists of two or three generations following, thought it necessary formally to refute his doctrines. The new philosophy of Descartes naturally attracted the attention of the theologians and philosophers of England as in many important features diametrically opposed to the fashionable tenets of Hobbes. Hobbes had contributed his objections (the *third*) to the meditations of Descartes, and it was obvious from the first, that however close might be the affinities in some features between the physics of the two, their views of the soul were diametrically opposed. It is not surprising that a school of Cartesians and of thinkers with Cartesian sympathies began to appear. Antony Legrand, an ecclesiastic of the order of St. Francis, led the way, coming into England from Douay, as a Roman Catholic missionary. He was an ardent propagandist of Cartesianism, residing several years in London, and subsequently in Oxfordshire. He published two works to further the easy apprehension of the elements of this philosophy in the universities, viz.: *Philosophia vetus e mente Renati Cartesii more Scholastico breviter digesta* and *Institutiones philosophiæ secundum principia R., Cartesii novo methodo adornata et explicata*, Lond., 1675, 3d ed. This philosophy encountered an active opposition at the University of Oxford, which was headed by Samuel Parker, the Bishop of Oxford. In his *Disputationes de Deo et divina providentia* he contended in the Scholastic spirit equally against the philosophy of Descartes and that of Hobbes, making no distinction between the mechanical features of each, and not discerning that while the one was Atheistic, the other was as strikingly Theistic in its spirit and tendency. To this attack Legrand replied in his *Apologia pro Renato Cartesio contra Samuelem Parkerum*, Lond., 1679. Legrand also held an active controversy with John Sergeant, also a Roman Catholic, who subsequently wrote against Locke. He annotated Rohault's *Traité de physique*, which was subsequently translated and edited in the spirit of the Newtonian physics by Samuel Clarke, 1723. Cartesianism never obtained a footing in Oxford, which retained the peripatetic Aristotelianism till it was partially displaced by the philosophy of Locke. In Cambridge Cartesianism had for many years a partial foothold without ever attaining the complete ascendency. Cf. Alma, a poem by Richard Prior, for the contrast between the Aristotelian and Cartesian theories of the soul, as held during this period respectively in Oxford and Cambridge.

The so-called Latitudinarians of Cambridge were all more or less influenced by Descartes: vide Burnet's *History of his own Time* and Tulloch's *Rational Theology*, etc. The most conspicuous among these were Ralph Cudworth, Henry More, John Smith, Benjamin Whichcote, and John Worthington. The first three were most distinguished as philosophers, the last two as ethical and religious writers. They were all equally opposed to the Epicurean and Atheistic philosophy of Hobbes, with its necessitarian theory of the will and its denial of the permanence and independent authority of moral distinctions, to those churchmen who exalted ecclesiastical organizations and rites above the spiritual power of Christianity, to those dogmatists who attached greater importance to Scholastic dogmas and subtle creeds than to the moral significance of its principles, and those Calvinists who seemed to exalt the power of the Deity above his moral attributes, or insisted upon the purposes and grace of God at the expense of human freedom. The most distinguished of these "Cambridge men," as they were also called, was Cudworth, who, besides the Intellectual System of the Universe, wrote *A Treatise concerning Eternal and Immutable Morality*, 1731, and also a Treatise on Free Will, both being unfinished fragments of extended discussions which were originally de-

signed to complete the first-named work. The whole was primarily designed to combat the doctrine of necessity as held by three classes of philosophers, the Atheistic; the Theistic, who rejected the moral authority of God, the so-called *Deists;* and the Christian Theists, who admitted moral perfections in God, but contended that necessity controls human activity. It was finished in part only, viz., the argument against the Atheistic hypothesis. The Intellectual System is at once the most learned and for the time the most critical work on the history of Ancient Philosophy which had ever been produced by any English writer. Besides the careful and comprehensive statements which it furnishes in respect to the doctrines concerning God, it constantly brings them into comparison with the more recent atheistical systems, excepting that of Spinoza, who is named but once in the text, and whose system could scarcely have been published at the time when Cudworth's treatise was written. Cudworth has Hobbes prominently in mind, even when criticising the ancient necessitarians and materialists. Descartes also comes under his criticism. There is scarcely a single position which Descartes accepted or taught which Cudworth did not call in question. He accepts in part the new mechanical philosophy so far as it seeks to account for inorganic phenomena, and even all the so-called sensible or secondary qualities of matter, but he contends that the belief of efficient causes in the sphere of matter does not exclude the belief in, or the possibility of final causes. As against the doctrine of the direct efficiency of the Deity in inorganic phenomena, and in order to explain the phenomena of organization in the universe as a whole, and pre-eminently in living beings, he adopts the hypothesis of a plastic or formative nature endowed with general and special activity, both efficient and teleological—a force producing the results of design without consciousness. He earnestly protests against that doctrine of unlimited power in God taught by Descartes, which set it forth as superior to logical and geometrical truth, and consequently as not controlled by moral distinctions. He criticises Descartes' argument for the existence of God, accepting that form of it which rests the truth of a correspondent reality on the existence of its correlated *idea*, but rejecting with a certain reservation that part of it which contends that necessary existence is an element essential to the idea of a perfect being. Against Hobbes he formally objects to the limitation of the powers of the soul to *Sense* and *Phantasy;* contending that there is a higher faculty of *Reason* or *Understanding*, which judges of sense. He argues against the nominalism of Hobbes and his derivation of the authority of Moral Distinctions from the commands of the civil magistrate. The learning and pedantic language of Cudworth serves to obscure the sagacity, originality, and independence of his own thinking. The fact that his treatise seems so largely made up of quotations from ancient writers has diverted the attention of superficial readers from the value and number of independent contributions which he has made to that eclecticism from the Ancients and the Scholastics, which was current in England before the time of Hobbes and of Locke. The Treatise concerning Eternal and Immutable Morality was posthumous, in 1731. It contends in Platonic phraseology for the independence of moral distinctions, and that they are discerned directly by the Reason.

The Treatise on Free-Will was published by John Allen, from MSS. in the British Museum, in 1838, 8vo, pp. 98. It is a direct answer to the necessitarian doctrines of Hobbes as propounded in his Letter to the Marquis of Newcastle on Liberty and Necessity, 1654. In simplicity of thought and diction it surpasses Cudworth's other works.

Henry More, 1614–1687, was inferior to Cudworth in the exactness and reach of his erudition and in the solidity of his judgment, but not in the subtilty of his philosophical discrimination nor in the acuteness of his controversial powers. His credulity in respect to witchcraft and spiritual possession, his amiable mysticism, and his belief in the divine wisdom of the Cabala, have caused his real merits as a philosopher to be overlooked, and the merited reputation which he enjoyed in his lifetime to be forgotten by the philosophical historian. He was for a time Rector of Ingoldsby, but spent most of his life in chosen retirement, from which no offers of academic or ecclesiastical preferment could withdraw him. His philosophical writings are *Enchiridion Ethicum*, 1669; *Enchiridion Metaphysicum*, 1671; *Collected Philosophical Writings*, 1662, fol., 4th ed., enlarged, 1712. This collection contains Antidote against Atheism, with Appendix; Enthusiasmus Triumphatus, Letters to Descartes, Immortality of the Soul, Conjectura Cabbalistica.

The leading principle of More's ethical system was that moral goodness is simple and absolute, that right reason is the judge of its nature, essence and truth, but its attractiveness and beauty are felt by a special capacity, *in boniformi animæ facultate*, not unlike the *moral sense* of later writers. Therefore all moral goodness is properly termed intellectual and divine. To affect this as supreme gives supreme felicity. By the aid of reason we state the axioms or principles of ethics into definite propositions, and derive from them special maxims and rules. In his philosophical works More states and defends in the main the principles of Descartes, stating at great length and with great minuteness the doctrine of innate ideas, and defending it against misconceptions and objections. He qualifies Descartes' opinion, that the soul has its seat in the pineal gland, and contends for the extension or diffusion of the soul, at the same time arguing that this does not involve its discerptibility. He contends at times for the reality of space as an entity independent of God, and again makes space to be dependent on God (anticipating the argument of Samuel Clark). He argues the existence of God from the moral nature of man. In his speculations concerning the Philosophical Cabala, he argues that the principles of the Platonic philosophy were derived from the Hebrew revelation, and yet contends for an independent power in man to apprehend rational and divine truth. In his Enthusiasmus Triumphatus as well as in his theological writings he argues against the false and pretended revelations and inspirations which were so current in his time. His Mystery of Godliness is an attempt to construct the Christian theology after those subjective ethical relations and beliefs which were taught by Plato and Plotinus, and at the same time to recognize the reality of the supernatural in the Christian history. More's theological writings were immensely popular. He was imaginative and poetical in many of his moods, and some passages of his prose writings are written in a strain of elevated beauty and eloquence.

John Smith, "of Cambridge," 1618–1652, born at Ackchurch, Northamptonshire, Fellow of Queen's College, 1644, and tutor and mathematical reader. His *Select Discourses* were published after his death in Lond., 1660, also Camb., 1673, Lond., 1821, Camb., 1859. These discourses are ten in number. Of these, the following treat of subjects in philosophy: The true way or method of attaining to divine knowledge; of the immortality of the soul, with an appendix on Aristotle's doctrine of the soul; of the existence and nature of God. They are not remarkable for any special novelty of principles or subtlety of reasoning, but for clear exposition of Platonic principles in an English style that for those times was wonderful, and which, together with the elevation of sentiment, makes them worthy of perusal as classical in English literature.

Benjamin Whichcote, 1610–1683, and John Worthington, 1618–1671, were of the same school of Cambridge men, had common sympathies in philosophy and its relations to theological doctrine and religious life, but the published works of both are predominantly religious and theological. Whichcote, from his position as College Tutor and Provost of King's College, was a leading person in this circle.

In Whichcote's *Religious Aphorisms*, 1703, *with additions and eight letters* between Dr. W. and Dr. A. Tuckney, 1753, may be found a most instructive insight into the conflicting schools and opinions of their times. His Complete Works were published, 1751, in 4 vols.

§ 6. The political and religious revolution that is called the Great Rebellion, and issued in the execution of Charles I., and the establishment of the Commonwealth, 1648–1660, exerted a powerful influence upon the philosophical spirit of the nation, and directly and indirectly occasioned some of the most important philosophical and philosophico-theological treatises. The most important writings of Hobbes owe their origin to his desire to preclude the possibility of appealing from authority to conviction. The radical and sensual skepticism of his principles called forth as confident appeals to the higher authority of reason and conscience, *i. e.*, to a direct revelation to the spirit of man, —or the revelation recorded in the Scriptures. All restraints were removed from the press, and also the restraints of tradition and authority. "Then was the time," writes Milton, "in special, to write and speak what might help to the further discussing of matters in agitation. The temple of Janus with his controversial faces might not insignificantly be regarded as set open. All the winds of heaven were let loose to play upon the earth." "A nation of writers was born in a day." These writers may be grouped as Anglicans of the school of Hobbes; Anglicans of the school of Hooker, among which may be classed the Cambridge Cartesians and Platonists; Anglicans of the school of Laud; Puritans of the narrow type who abjured all philosophy, and derived their polity, theology, and ethics from the literal authority of Scriptures, which authority was assumed to be unquestioned, to need no support from reason, and to derive all its evidence from supernatural grace. The more learned of these resolved all philosophy into the traditions of an original revelation, as Theophilus Gale *et al.* To these should be added the Puritans of the more liberal type; who were akin to the Cambridge men, some of whom had been originally Puritans but afterwards conformed. Of the former class the most distinguished were Nathaniel Culverwell, already noticed, Richard Baxter, and John Howe. The Mystics, Quakers, and Seekers relied on a direct revelation to the individual spirit which superseded all ratiocination and positive authority. Their views in men of high intellectual culture, like William Penn and Sir Henry Vane, were expressed in the philosophical diction and method of a Christianized Platonism. The theological skeptics rejected all positive revelation in the spirit of Herbert of Cherbury. The philosophical skeptics, like Joseph Glanville, attacked all philosophy by denying the self-evident and authoritative character of its original categories and axioms, and resolved all trustworthy knowledge into the vague operations of experience, supplemented by the testimony of revelation, or into what could be verified by physical experiment.

Besides Culverwell, already named, two writers, moderate Puritans, deserve special notice in a History of Philosophy, viz., Richard Baxter and John Howe. Richard Baxter, 1615–1691, was one of the most voluminous theological writers of his time. In philosophy he deserves mention as the earliest * writer on the evidences of religion in English literature, and also as the first who expressly and distinctly recognized the necessity of following "a methodical procedure in maintaining the doctrines of Christianity and of beginning at natural verities as presupposed fundamentally to supernatural." His service to English philosophical thinking in enouncing this position cannot be overestimated. His three treatises, The Unreasonableness of Infidelity, 1655; The Reasons of the Christian Religion, 1667; More Reasons for the Christian Religion and no Reason

* We ought, perhaps, to except the Atheo-mastix of Bishop Fotherby, 1622, which is incomplete.

against it, 1672; the last in reply to Lord Herbert of Cherbury, contain his views in respect to the relation of natural to revealed religion, in respect to the relation of faith to reason, and impliedly his principles of the grounds of all knowledge. His doctrine of the immortality of the soul is set forth in the works already named, and in a volume "Of the Immortality of Man's Soul, and of the Nature of it, and of the Spirits," 1682. His account of his own Life and Times throws much light on the state of opinion in this period of universal agitation.

John Howe, 1630–1705, Christ Coll., and Fellow of Magdalen, Cambridge, was educated in the society of More, Cudworth, etc. His theological works are more or less impregnated with the philosophical spirit, and show a familiar acquaintance with the ancient writers and the leading philosophers of his time. One of his ablest works, The Living Temple (1675), contains an elaborate refutation of Spinoza, the first that is known to have been published in the English language.

Four other writers deserve a passing notice:—

William Chillingworth, 1602–1644, Fellow of Trin. Coll., Ox., 1628. His best known work, *The Religion of Protestants a Safe Way to Salvation*, 1638, though more theological than philosophical, implies an underlying philosophy and is recommended by Locke as a book, the reading of which "will teach both perspicuity and the way of right reasoning better than any book that I know." Dr. Reid says, its author "was the best reasoner and the most acute logician of his age."

John Hales, of Eton, 1584–1656, styled *the ever-memorable*, was remarkable as an earnest protestant against the Calvinism of the Synod of Dort, and for his powerful influence over a limited but able circle of thinkers. His *Golden Remains* were published 1659, '73, '88, and his *works*, 3 vols., 1765.

John Goodwin, 1593–1665, Queen's Coll., Camb., was an able divine, who adopted the Arminian tenets against the Calvinism current among the Puritans, and published among other writings, *Redemption Redeemed*, 1651, in which occur many references to philosophical and ethical principles.

Sir Matthew Hale, 1609–1676, Magd. Hall, Ox., in his writings on legal and theological topics reflects much of the current philosophy.

Richard Cumberland.—The Transition to Locke.

§ 7. Richard Cumberland, 1632–1718, Fellow of Magdalen Coll., Cambridge, Rector of Brampton and All-hallows, Stamford; Bishop of Peterborough, 1691. His treatise *De Legibus Naturæ Disquisitio Philosophica*, etc., etc., was published Lond., 1672, fol. Lub. and Francf. 1683, 4to; in English, with Introduction and Appendix by J. Maxwell, Lond., 1727, 4to; Abridged by T. Tyrrell, Lond., 1692, 8vo; Translated with notes by J. Towers, Dubl., 1750, 4to; In French by Barbeyrac, Amst., 1744, 4to. Cumberland was also the author of several theological treatises, which in their day were of considerable importance. The treatise *De Legibus Naturæ*, is of the greatest significance in the History of Philosophy for its ability, and because it was the first treatise from that numerous school of ethical writers which was called into being by antagonism to Hobbes. The treatise of Grotius, *de Jure Belli et Pacis*, 1625, was undoubtedly of great service to Cumberland, as he implies—Introd. I. §1. His own treatise differed from that of Grotius in this, that whereas Grotius reasons from effects to causes, he reasons from causes to effects, *i. e.*, he begins with an analysis of the nature of man and the constitution of things and thence proceeds to derive the special ethical duties. The title of this treatise indicates its leading purpose, viz., to vindicate the proposition that

there are laws of morality made known by nature, in opposition to the doctrine of Hobbes that these laws originate in civil society alone and derive from society their sole sanction. This is the first of modern treatises which rests its argument formally on the communications of nature as contrasted with, and as supposed in positive revelation, and dares to assert that certain ethical conceptions and beliefs attainable by Reason are required in order to defend and interpret revelation. The treatise also indicates the impression that had been made upon English thinking, not so much by the bold materialism of Hobbes, against which it protests, as by the Cartesian Mathematical Mechanics, and the Experiments of Newton and his associates in the then newly-formed Royal Society. Cumberland does not accept the doctrine of innate ideas and principles as held by Descartes or Lord Herbert, or as traditionally received by the Cambridge Platonists. He prefers, according to the method of Bacon, to find the Laws of Nature by studying the Constitution of Nature. His treatise is memorable also as being the first English treatise in Philosophical Ethics as distinguished from the treatises on Casuistry, like Taylor's *Ductor Dubitantium*, 1660, and Baxter's *Christian Directory*, 1673. The constitution of nature Cumberland discovers by those effects of nature which reveal its forces and laws. He defines a law of nature thus: "A proposition, proposed to the observation of or impressed upon the mind with sufficient clearness by the nature of things, from the will of the first cause, which points out that possible action of a rational agent which will chiefly promote the common good, and by which only the entire happiness of particular persons can be obtained. The former part of this definition contains the precept, the latter the sanction, and the mind receives the impression of both from the nature of things."

The law of nature respecting morality is generalized thus: "The greatest benevolence of every rational agent towards all, forms the happiest state of every and of all the benevolent, as far as in their power; and it is necessarily requisite to the happiest which they can attain, and therefore the common good is the supreme law." Of the certainty and universal evidence of this law, he says, "That the motion of a point does not more certainly produce a line, or the addition of numbers a sum, than that benevolence produces a good effect (to the person whom we wish well) proportioned to the power and affection of the agent, on the given circumstances. It is also certain that to keep faith, gratitude, natural affection, etc., etc., are either parts or modes of a most effectual benevolence toward all, accommodated to particular circumstances; and that they must certainly produce their good effect, after the same manner it is certain that addition, subtraction, multiplication, and division are parts or modes of calculation; and that a right line, circle, parabola, and other curves, do express the various effects which geometry produces by the motion of a point."

His doctrine of Human Nature and of Right Reason is as follows: Human Nature is endowed with certain innate principles and capacities. To the mind belong understanding and will. The first comprehends apprehending, comparing, judging, reasoning, a methodical disposition and the memory of all these things (activities) and the objects about which they are conversant. To the will we ascribe the simple acts of choosing and refusing and the vehemence of action discovered in the Passions. In the memory of propositions, both theoretical and practical, consist Habits both Theoretical and Practical, called respectively Sciences and Arts. Human Nature suggests certain rules of life in the same manner that it suggests the skill of numbering. The first apprehensions of things and the desire of good and aversion from evil in general, are necessary. The higher nature of man is capable of higher functions and more exalted uses "than that of the soul of a swine, instead of salt to preserve a carcass from

rottenness." Man is endowed with Right Reason which comprehends the capacity as well to discern "first principles or self-evident truths as conclusions thence formed. Of these those which are practical are called Laws. True propositions of both sorts are those which agree with the nature of things." "The dictates of practical reason are propositions which point out the end or the means thereto in every man's power." "That which takes the shortest way from the given term or state of things to this end is called right, by a metaphor taken from the definition of right line, in use among mathematicians. An action attaining the most desirable effect in the quickest manner takes the shortest way to this end. Therefore it is right. And that very comparison by which such action is discovered, supposes all things so considered, that it is known both what will less conduce to the end and (with much greater ease) what would obstruct the effecting it." "For right (or strait) shows what is crooked as well as what is strait." Cumberland's psychology and ethics are highly instructive, for the reason that he anticipated Locke in conducting his inquiries in respect to Human Nature in general, in the inductive spirit. While he does far more exact justice than Locke to the noetic or the regulative power as an original endowment he carefully saves himself from the Platonic indefiniteness which Herbert, Descartes and the Cambridge men allowed themselves. Like all the opponents of the ethics of Hobbes, Cumberland insists earnestly on the possession by man of the social and disinterested affections as an original endowment of his nature.

CHAPTER II.—JOHN LOCKE.—HIS CRITICS AND DEFENDERS.

We have little to add to Ueberweg's careful analysis of Locke's principal treatise except the following general remarks:

§ 8. Locke's Essay on the Human Understanding introduced a new epoch into English philosophy. It found speculation in the divided and partially chaotic state which the prevalence of a great variety of different schools had introduced. Each of these schools was animated by a positive or negative theological interest which intensified the earnestness with which its principles were held and defended. Locke himself, by his training and associations, would naturally occupy the ground of mediation. His education as a physician, his sympathy with the new physics which were coming into notice, and his cool and tolerant temper, all contributed to this tendency. The temper of his times was practical rather than speculative, cautious rather than adventurous, critical and analytic rather than bold and dogmatic. The Essay on the human understanding did not attain the form in which we find it, till the sixth edition. The first edition contains not even the rudiment of the celebrated chapter on the Association of Ideas, which subsequently obtained such extensive currency among English psychologists, and so decided an influence over English speculation. This is the more surprising if we consider that Hobbes distinctly recog-

nizes the law of association and attaches to it great importance. In the first edition the distinction between desire and will—of which so much was subsequently made, is not recognized—the necessitarianism of Hobbes is broadly asserted, and liberty is limited to the power of acting. In later editions a power to suspend the determination of the will is accorded. Cf. B. II., cxxi., § 56. Cf. *Locke's Letter to Molyneux*, July 15, 1693, in King's Life of Locke.

It should be observed also that the essay is more logical or metaphysical than psychological in its aims. Sir Isaac Newton terms it "your book of ideas," in a letter of apology to its author. The criticisms upon it and the replies which they called forth, indicate that its doctrine of ideas was the chief feature which attracted the public attention. If we compare the essay with the Port Royal Logic, then well known in England, and especially if we view attentively Locke's own account of the design of his essay, we shall be satisfied that he did not so much propose to give a complete outline of the powers of man as to analyze the different forms of human knowledge into their ultimate elements.

The critics and antagonists of Locke all confirm this view. They criticize and assail his positions on the ground of their supposed inconsistency with important theological, practical, or scientific truths rather than in respect to their psychological validity.

§ 9. A historical sketch of English philosophy would be incomplete which should not contain some notices of Locke's critics.

The first of these in the order of time, and the one who is most familiarly known, is Edward Stillingfleet, 1635–1699; Bishop of Worcester, 1689–1699. In a Discourse in vindication of the Doctrine of the Trinity, etc., 1696, he criticized some of the positions taken in Locke's Essay, as inconsistent with this and other doctrines of the Christian Faith, and as tending to scepticism. To these criticisms Locke made an elaborate reply in a letter to the Bishop of Worcester, January, 1697. To this reply Stillingfleet published his Answer to Mr. Locke's Letter, April, 1697. To this answer Locke issued his Reply to the Bishop of Worcester's Answer, June, 1697. The Bishop published his Answer to Mr. Locke's second Letter in September, 1697, to which Locke issued a long and elaborate reply in 1698, which concluded the controversy.

The doctrines of Locke, criticised by Stillingfleet, are primarily his fundamental position, which limits the sources of ideas to two, viz., sensation and reflection. S. objects also to the introduction of the term idea in so novel and very general a signification; to Locke's denial of innate ideas; to his defective and partial definition of knowledge, and his unsatisfactory definition of the idea or notion of substance; also to his unsatisfactory definition of person, and his inadequate explanation of the grounds of our belief in personal identity; also to the general most obvious tendency of his writings to undermine the Christian faith and to promote skepticism. This discussion was deemed

so important, and Locke's success was thought by his friends to be so complete, that a condensed view of the arguments on both sides has been published in the form of notes to many editions of the essay till the present time.

J. A. Lowde, an earnest critic of Locke, and an antagonist also of Hobbes, published in 1694 a volume entitled "A Discourse concerning the Nature of Man," in eight chapters—On self-knowledge; man as compounded of body and an immaterial soul; our ideas of truth and goodness; the being of God; the state of nature; religion the only foundation of civil government; of moral virtue; Mr. Hobbes' notions of the kingdom of darkness. This work of Lowde attracted the attention of Locke, as is evident from his notes to the later editions of the essay and his private letters.

The celebrated Thomas Burnet, 1635–1715, is said to have been the author of three pamphlets—the first two 1697, the last 1699—entitled, "Remarks upon an Essay concerning Human Understanding," which elicited a reply, 1702, from Catherine Trotter, afterwards Mrs. Cockburn, at that time but 23 years of age.

Richard Burthogge M.D. (died in 1694), dedicates to Locke an Essay upon Reason and the Nature of Spirits. His other philosophical writings were *Organum vetus et novum*, Of Reason and Truth, 1678; Of the Soul of the World, 1699. The essay contains many acute criticisms upon Locke's positions. The author first divides the intellectual power into three—sense, imagination, and understanding. Sense is as truly an act of knowledge as either of the others—the understanding, or knowledge by ideas or notions, is peculiar to man. Every object which we know, we know only as in relation to our powers to know—as a phenomenon or appearance—and what appears is determined negatively by that power of sense and of understanding, which we possess as human beings. "It is certain that things to us men are nothing but what they stand in our analogy; that is, in plain terms, they are nothing to us but as they are known by us, * * and they are not in our faculties, either in their own realities or by way of a true resemblance and representation, but only in respect of certain appearances or sentiments which, by the various impressions that they make upon us, they do either occasion only or cause or (which is most probable) concur unto in causing with our faculties." It is thus with the eye, the ear, the imagination; "and there is the same reason for the understanding that it should have a like share in framing the primitive notions under which it takes in and receives objects. In sum, the immediate objects of cogitation, as it is exercised by men, are *entia cogitationis*, all phenomena—appearances that do no more exist without our faculties, in the things themselves, than the images that are seen in water, or behind a glass, do exist in those places where they seem to be." pp. 59, 60. Burthogge's Essay is chiefly of interest as it explicitly anticipates one of the most important positions of Kant's philosophical system, known also as Hamilton's doctrine of the relativity of knowledge.

Another critic of Locke was John Sergeant, 1621–1707. "Method to Science.—Solid Philosophy Asserted, against the Fancies of the Ideists: or the Method to Science farther illustrated with Reflexions on Mr. Locke's Essay concerning Human Understanding. London, 1697." This is the same John Sergeant who controverted the Cartesian Le Grand, (cf. p. 357). Sergeant subjects many positions of Locke's essay to a running criticism—the ground and character of which are suggested by the title of his work, *Solid Philosophy*. He contends against the doctrine which he finds in Descartes and Locke, and for which he calls them *Ideists*, viz., that we do not know objects themselves directly, but their ideas only, and things by means of their ideas. He subjects the doctrine of representative knowledge to an acute and searching criticism. He limits *Idea* to images or phantasies of sense objects, and contends that the higher

knowledge, such as is peculiar to rational beings, is notion or cognition; and the notion objectively viewed is the thing itself in our understanding. He rejects Locke's assumption that there are many simple notions; contending that there is only one, viz., Existence. General truths are the most original and authoritative of all truths, etc., etc.

The most elaborate and extended critical reply to Locke's Essay was that by Henry Lee, B.D., who graduated 1664, and was Fellow of Emmanuel College, Cambridge, and Rector of Tichmarsh. It is entitled "Anti-Scepticism; or Notes upon each Chapter of Mr. Locke's Essay concerning Human Understanding, with an Explication of all the particulars of which he treats, and in the same order with Locke. In 4 books. Lond., 1702." This work follows Locke by chapters almost as closely as does the Nouveaux Essais of Leibnitz. Of Locke's first book on Innate Ideas, he observes that no one has ever held that there are such in the sense in which Locke assails them—and that it is obvious that there are such, in the sense that men are not at liberty not to have certain perceptions and judgments, and that these capacities and tendencies do not dispense with the necessity and importance of a divine revelation. Of the second book on Ideas, he objects to the novel extension of the term Ideas from its appropriate use in designating images of individual sensible objects, to that signification which comprehends all objects of the mind thinking. He urges also that the ideas treated as simple by Locke are not in fact such. He denies that all our ideas are derived from Sensation and Reflection; because Sensation cannot give knowledge without the co-operation of other intellectual powers, and Reflection means only Knowing or Consciousness. In the third book he especially objects to Locke's analysis of our moral ideas—that he destroys their authority and fixedness. In the fourth book he criticizes his definition of knowledge as skeptical in its tendency and logical application, and for the following reasons:—first, in the case of particular propositions we cannot be as certain, by the way of ideas, as we are of the existence of the things which are the subjects and predicates of the propositions; second, there are no such things in the mind of man as he calls simple ideas, which must be gained before the mind receives the knowledge of things by perceiving the agreement or disagreement of such ideas; third, there are no such things as general abstract ideas. Lee's work is very instructive as giving an insight into the positions maintained by a considerable class of critics and men of learning in his time.

Rev. John Norris, 1657–1711, Rector of Bemerton from 1691–1710, was an earnest critic of Locke in the spirit of Malebranche, with a very decided leaning to Plato. His principal philosophical work is an Essay towards the theory of the ideal or intelligible world, in two parts, the first considering it absolutely in itself, and the second in relation to human understanding. Lond., 1701–04. In the appendix to vol. 1 of Practical Discourses on the Beatitudes, 1690, are added Cursory Remarks upon a Book called an Essay concerning Human Understanding. Cf. Locke's comments on the same—the works of John Locke, 1794, vol. 9th, pp. 247–259.

William Sherlock, 1641–1707, Dean of St. Paul's, etc., in his Discourse of the Immortality of the Soul and Future State, 1705, etc., chap. ii., sec. 3; *A Digression concerning Connate Ideas or Inbred Knowledge*, pp. 95–127, attacks Locke's doctrines of innate ideas in the spirit of Stillingfleet. Cf. Locke's works, Lond., 1794, v. 9, p. 293. He argues that the soul has connate or inbred beliefs, *e. g.*, concerning its own immortality, and therefore connate or inbred ideas.

John Edwards, 1637–1716, Fellow of St. John's College, wrote against Locke's Reasonableness of Christianity the following theological treatises: Thoughts concerning the Causes and Occasions of Atheism, 1695; a Demonstration of the Existence and

Providence of God, 1696; Socinianism Unmasked; or the unreasonableness of the opinion concerning one article of faith only, 1696; a brief vindication of the fundamental Articles of the Christian Faith; and the Socinian's Creed, 1697.

Conyers Place wrote against Bold (p. 368). Remarks with Queries to Mr. Bold, 1724; also in 1729, An Essay towards a Vindication of the Visible Creation, in which he contends that the mind is endowed with a faculty higher than sensation, by means of which it inwardly *reflects*, and through which it obtains its more important and abstract conceptions. This gives knowledge not obtained by any of the corporeal faculties outward or inward. This knowledge is substantial, immediately wrought in itself by the substance from the competency of the object to it, antecedent to all notices from without.

Malcolm Fleming, or Flemyng, published in 1751 a New Critical Examination of an important passage in Mr. Locke's essay, in which he questions the correctness of Locke's views respecting *Substance*, *Spirit* and *Essence*, and the possibility that matter can be endowed with the power of thought.

Another very able antagonist of Locke was Peter Browne (died in 1735), Provost of Trinity College, and subsequently Bishop of Cork. He was the author of several theological works; the two works for which he is most distinguished in philosophy are: *The Procedure and Limits of the Human Understanding.* Lond., 1728; 2d ed. 1729; *Things Divine and Supernatural conceived by Analogy with Things Natural and Human.* Lond., 1733.

The doctrines of Browne are: That we have *ideas* of sensible objects only; and of their operations, while of pure spirit, we have no ideas at all, but only of the operations of spirit as connected with a material body; these operations also we consequently designate by terms borrowed from sensation; that from these we infer the existence of spirit—of which and its operations we have ideas indirectly and by analogy with material substances and the actions to which their spiritual representatives are analogous. If this is true of created and limited spirits, how much more is it true of the uncreated and infinite Spirit? Browne's theory of knowledge and the processes of the understanding is also, in some respects, antagonistic to the theory of Locke, *e. g.* he criticizes Locke and all the writers of his school for failing to distinguish "rightly between the simple perceptions of sense and the simple apprehension of the intellect; between the primary and simple ideas of sensation which are independent of the *pure* intellect and those secondary compounded ideas which are its creatures; between all these and the complex notions and conceptions of the mind; but above all, the want of distinguishing between the conception of things human, when they are direct and immediate, and when they are transferred to things spiritual and immaterial by semblance only and analogy." An idea of reflection, in Browne's judgment, is an empty sound. The mind does not know its operations either by direct or reflex ideas. It only knows them by an immediate self-consciousness when they are employed on the ideas of external objects. It would know not its own existence or its operations, were it not for some idea of an external object about which it is employed.

The highest operation of Reason is inference or illation, which is not employed upon our simple ideas so much as on our complex notions. This excludes the definition of knowledge by Locke as consisting in a perception of the agreement or disagreement of our ideas. This definition is so far from being true, that it can be shown we have knowledge of objects concerning which we have no ideas; pre-eminently of objects supernatural, which we know by natural analogies only, and which analogical knowledge is enhanced and appealed to in revealed communications from God.

The doctrines of Browne are important, not merely in their relations to those of Locke, but because of their near and remoter influence upon speculative theology. Browne was an earnest defender of the Christian faith. In 1697 he wrote a reply to Toland's Deistical Tracts. He was in sympathy with an active body of defenders of the Christian faith who were more or less directly connected with Trinity College, Dublin. Among these was William King, 1650–1729; Bishop of Derry, 1691; Archbishop of Tuam, 1702; Archbishop of Dublin, 1703. King was the author of the treatise *De Origine Mali*, 1702–1704; in English by Edmund Law, 1731, 4to; 2d ed., with additions, etc., 1732; with answers to Bayle and Leibnitz, 1738, 1758, 1781. King also published a sermon on Predestination, 1709; Oxford, with notes by Whately, 1821, in which doctrines are taught similar to those advanced by Browne, respecting the limits of our knowledge of God. Cf. El. Logic, by R. Whately, appendix, iv. xv. Cf. An Enquiry into the Doctrines of Necessity and Predestination, by Edward Coplestone. London, 1821. Cf. H. L. Mansel, The Limits of Religious Thought. As a disciple of Browne, King dissented from the doctrines of Locke.

Edmund Law, D.D., 1703–1787, St. John's College, Cambridge, Bishop of Carlisle, in addition to his notes on King's Essay, also published "An Inquiry into the Ideas of Space, Time, etc.," Cambridge, 1734, in which he dissents from Locke.

Among the critics of Locke, who wrote in the spirit of Peter Browne, Zachary Mayne deserves conspicuous attention. He was probably the son of Zachary Mayne, a divine who was somewhat notorious for his theological opinions in the time of the Commonwealth, and died at Exeter, Nov. 11, 1794, leaving a son who was a physician, and died at Northampton in 1750, aged 73.

Mayne's only philosophical work, anonymous, is entitled, Two Dissertations concerning Sense and the Imagination, with an Essay on Consciousness, 1727. The design of the dissertations is to refute the opinion which the author describes as nearly universal in his time, that brutes have the same intellectual capacities as man. This opinion, he asserts, is a direct and immediate consequence of Locke's doctrine of ideas, which makes the acts of sense perception to be intellectual. Against this view the author contends that the acts of neither sense nor the imagination are intellectual, but that to make them such a higher power must be added, viz., the understanding, by which alone we gain notions or conceptions.

The Essay on consciousness is claimed by its author as the first attempt to treat of this theme. It distinctly recognizes the functions of consciousness and of self-consciousness as they have been subsequently developed in the schools of Reid and Hamilton. It is surprising that this first and important contribution to this discussion has not been better known and held in higher honor by students of English philosophy.

§ 10. DEFENDERS OF LOCKE.—Vincent Perronet, Vicar of Shoreham in Kent, wrote with much spirit and acuteness "A vindication of Mr. Locke from the charge of giving encouragement to skepticism and infidelity, and from several other mistakes and objections of the learned author of the procedure, extent, and limits of the human understanding." In six dialogues, Lond., 1736; also a second vindication of Mr. Locke, Lond., 1738. These replies to Bishop Browne reflected the general sentiment of the times as to the points of objection raised against the peculiar views of Locke, and seemed to mark the termination of open dissent or unfavorable criticism for one or two generations.

Samuel Bold, Rector of Steeple and Vicar of Shapwicke, Dorsetshire, 1687–1736, was distinguished for his zeal in defence of Locke's theological and philosophical doctrines. He published several tracts in his behalf, which were collected in a volume in

1706. The titles follow: A short discourse of the True Knowledge of Christ Jesus; to which are added some passages on the *Reasonableness of Christianity* and its vindication, with some Animadversions on Mr. John Edwards' Reflections on the Reasonableness of Christianity, etc., 1697.

A reply to Mr. Edwards' brief reflections on a short discourse, etc., 1697.

Observations on the Animadversions on a late book entitled, The Reasonableness of Christianity, etc., 1698.

Some considerations on the principal objections and arguments which have been published against Mr. Locke's Essay of Human Understanding, 1699.

A Discourse concerning the Resurrection of the same Body: with two letters concerning the necessary immateriality of thinking substance, 1705.

The two points objected to in Locke which Mr. Bold considers, are (1.) his doctrine that the certainty of knowledge consists in the perception of the agreement or disagreement of ideas, which was called the *way of ideas*, in opposition to the making inferences from maxims, held to be the only rational or Christian way to knowledge or certainty; (2.) Locke's doctrine that it is impossible for us to assert that matter cannot be endowed by the Creator with the capacity to think.

The letters concerning the necessary immortality of the thinking substance are a critical reply to John Broughton's *Psychologia*, and also to John Norris's attempted demonstration of the immateriality of the soul in his Theory of the Ideal World. Part 2nd.

Mrs. Catherine Cockburn, born Trotter, 1679–1749, was another zealous defender of Locke. Her works were collected and published in 2 volumes, Lond., 1751. They are theological, moral, dramatic, and poetical; but prominent among them are the following: A Defence of Mr. Locke's Essay of Human Understanding, 1702, chiefly against objections waged against his theory of moral distinctions. The critic contends that Locke provides for the permanence and authority of these distinctions under "the Divine law" as manifested in the constitution of man. Mrs. Cockburn herself agrees with Dr. Samuel Clarke in her ethical views, and in this defence and her other writings on ethics she earnestly defends this theory. In 1726 she published a letter to Dr. —— Holdsworth, occasioned by his sermon preached before the University of Oxford, on Easter-Monday, concerning the Resurrection of the same body, in which the passages that concern Mr. Locke are chiefly considered, etc., etc. A vindication of Mr. Locke's Christian principles from the injurious imputations of Dr. Holdsworth, Part I.; also a vindication of Mr. Locke on the controversy concerning the Resurrection of the same body, Part II., were prepared about the same time, but not published till 1751. In 1743 were published remarks upon some writers in the controversy concerning the foundation of moral virtue and moral obligation; particularly Rev. Mr. Gay, the author of the dissertation preliminary to Law's translation of Archbishop King's Origin of Evil, and the author of the Divine Legation of Moses, to which are prefixed some cursory thoughts on the controversies concerning necessary existence, the Reality and Infinity of Space, the Extension and Place of Spirits, and on Dr. Watts' notion of substance. In 1747, she published Remarks upon the principles and reasonings of Dr. Rutherforth's Essay on the nature and obligations of virtue, in vindication of the contrary principles and reasonings contained in the writings of the late Dr. Samuel Clarke; published by Mr. (Bp.) Warburton, with a preface. In the works of Mrs. Cockburn are also published a voluminous correspondence between herself and Rev. Dr. Thomas Sharp, 1693–1758, Archdeacon of Northumberland, etc., on the nature and foundation of moral distinctions.

§ 11. The New Physics.—The circumstance has already been noticed that the philosophy of Locke was in sympathy with the movement in England, which led to the formation of the Royal Society in 1663, and which culminated in the splendid discoveries of Sir Isaac Newton. The "mechanical" or "the new philosophy," as it was called, was not merely a successful protest against many of the physical theories of Descartes, but it involved the study of the powers and resources of the human mind itself. It is worthy of notice, however, that neither Sir Robert Boyle, who was conspicuous in furthering the new philosophy in its first beginnings, nor Sir Isaac Newton, who conducted it in so many departments to its complete triumph, made either psychology or metaphysics an object of special or separate attention. Still, their influence upon both these courses of speculation was not inconsiderable and not entirely in the direction taken by Locke.

Sir Robert Boyle, 1627–1691, published very largely in theology and physics. Collected works, 5 vols., fol., 1744, also 6 vols., 4to, 1772. Phil. works abridged, 1725, 3 vols., 4to. Theol. works epit. 1699, 4 vols., 8vo; 1715, 3 vols., 8vo. The most important topics in philosophy discussed by him were the relation of Reason to Religion and the doctrine of Final Causes. To the last he devoted an elaborate discussion.

Sir Isaac Newton's, 1642–1727, chief contribution to metaphysics was in the form of a scholium to the second edition of the Principia, 1713, respecting Space and Duration, which was subsequently expanded into an *à priori* argument by Dr. S. Clarke and the philosophers of his school. It is singular, yet true, that the subsequent deviation from Locke's principles and method, or more properly, the recognition of an appropriate sphere for *à priori* truth, for which Locke's analysis had failed to provide, should have been largely owing to the influence of these two eminent physicists. The fact cannot be questioned that speculative philosophy asserted a wider range of inquiry for itself under the impulse given to it by Dr. Samuel Clarke and the theologians and philosophers of his school. Cf. D. Stewart, Prel. Diss. P. II., sec. 3.

John Wilkins, 1614–1672, Bishop of Chester, who was one of the foremost in the meetings which resulted in the Royal Society, was the author of Principles and Duties of Natural Religion, 1675. Cf. I. Sprat, 1636–1713, Bishop of Rochester; History of the Royal Society of London for the improving of Natural Knowledge, 1667; also, Treatises by Joseph Glanvil, 1636–1680; also, Attacks on the Royal Society, by Henry Stubbe, 1631–1676. Glanvil was a very able critic and assailant of the Aristotelian physics and metaphysics. Of his Sceptis Scientifica Dugald Stewart says—it is "One of the most acute and original productions of which English philosophy had then to boast." *Dissert. etc.* Bishop Wilkins also wrote "An Essay toward a Real Character and a Philosophical Language" (Lond., 1688), of which the second part treats of Universal Philosophy, and the remaining three parts are devoted to language in general and the possibility and characteristics of a philosophical language, or a *Real Character*.

Wilkins was said to have been indebted to George Dalgarno, 1627–1687, author of Ars Signorum, Vulgo Character Universalis et Lingua philosophica. Lond., 1661.

Dalgarno wrote also Didascolocophus, or the Deaf and Dumb Man's Tutor, Oxford, 1680, 8vo. He deserves to be commemorated as the earliest, or one of the earliest English writers, on Philosophical Grammar and the teaching of language to deaf mutes. See Works of George Dalgarno of Aberdeen, 4to, reprinted at Edinburgh, 1834.

A singular contribution to Philosophy by Robert Green, of Clare Hall, Camb., 1712, indicates that the progress of the New Philosophy was not effected without opposition. It is entitled The Principles of Natural Philosophy, in which is shown the insufficiency of the present systems to give us any just account of that science—and the necessity

there is of some new principles in order to furnish us with a true and real knowledge of nature. Camb. and Lond., 1672. "The present systems" are the Cartesian and the Newtonian, and the author discusses at length the metaphysics of mind and matter and the authority of the mental faculties, etc., etc., and the certainty of knowledge. He maintains that there is neither a vacuum in the sense of the moderns, as Newton, etc., nor a plenum in the sense of Descartes. He offers to prove that it is possible to square the circle. He died 1730. His philosophy was called the *Greenian* Philosophy.

CHAPTER III.—Speculations respecting the Nature of the Soul.

§ 12. The freedom and activity consequent upon the political revolution of 1688, and the influence of Locke's Essay, as also of the new physics, were manifest in the variety of directions taken by philosophical investigation. One of the most conspicuous of these directions was towards materialism. Discussions and controversies in respect to the nature and immortality of the soul began in the seventeenth century and were prosecuted during the greater part of the eighteenth. This materialism assumed a variety of forms, and its positions were urged in several distinct and almost incompatible lines of argument. The materialists of the school of Hobbes were reinforced in their confidence by the position taken by Locke against the fundamental doctrine of Descartes in regard to the essence of the soul—Locke asserting that there was no inherent impossibility that matter should be endowed with the power of thinking, as against Descartes' axiom that the essence of spirit is thought. The mechanical philosophy common to Descartes and Newton favored their reasonings in some degree. The opponents of Christianity as a revelation of immortality by supernatural attestations contended that the future existence of the soul was impossible.

Many of the so-called Free Thinkers, or Deists, were avowed Materialists. The chapter in Bishop Butler's Analogy, "Of a Future Life" indicates the occasion for an argument against Materialism, and enables the reader to infer what were the current arguments urged in its support. On the other hand, some ardent believers in Christianity sought to exaggerate its importance by contending that the soul is not naturally immortal, but that its future existence is simply a gift of God, which is both imparted and announced by supernatural agencies and instruments. Among the many writers who wrote directly and incidentally upon this subject three may be named as conspicuous, *viz.*, William Coward, Henry Dodwell and Andrew Baxter.

§ 13. William Coward—1656–1725—was a physician, educated at Hart Hall and Wadham College, in Oxford. His first publication was issued under the pseudonym of *Estibius Psycalethes*, "Second Thoughts concerning the Human Soul, demonstrating the notion of a human soul, as believed to be a spiritual immortal substance united to a human body, to be a plain heathenish invention, and not consonant to the principles of philosophy, reason, or religion," etc., etc. The doctrine of the treatise was, that every man dies as a beast but has the prerogative to be raised to life again.

Replies were written by several writers, as Dr. William Nichols, 1664–1712, John Broughton, John Turner, William Asheton, D.D., and others; to some of which Coward replied, as also to other replies. The titles of the principal works by himself and his antagonists are given below. Two of Coward's works, the Second Thoughts and the Grand Essay, were burned under the order of the House of Commons, by the common hangman, in 1704.

§ 14. Henry Dodwell—1641–1711; Trin. Coll., Dublin, was Camden Professor of History in Oxford, in 1688, but lost this post in 1691, by refusing the oath of allegiance to the new dynasty. He was well known as a non-juring High Churchman, a voluminous and various writer on many topics of ancient chronology and church government, and notorious for his extreme opinions on many topics, prominently on the immortality of the soul. In 1706 he published a treatise which gave a new direction to the discussion on this subject, which had become already sufficiently active. Its title indicates his position, viz., "An Epistolary Discourse proving from the Scriptures and the first Fathers that the Soul is a principle naturally mortal, but immortalized actually by the pleasure of God, to punishment or to reward, by its union with the divine baptismal spirit. Wherein is proved that none have the power of giving this immortality since the apostles, but only the Bishops."

The distinction between body, soul and spirit, conceived to be formally taught in the New Testament, was supposed, when interpreted by the principles of Locke's philosophy and theology on the one hand, and certain dogmas of sacramental grace on the other, to give countenance and authority to the views of Dodwell, and others less extreme than he, who denied the so-called natural and necessary immortality of the soul. But materialists and immaterialists, Deists and Christians, dissented from and attacked the doctrines of Dodwell, and thus complicated the discussion, which was already sufficiently mixed. William Coward and Henry Layton on the one side, and John Norris, Joseph Pitts, Edmund Chishull, Thomas Mills, Daniel Whitby, D.D., Samuel Bold and Dr. Samuel Clarke on the other, participated in the very warm discussions which ensued.

The discussions on this special topic entered very largely into the controversy between the English Deists and the defenders of Christianity. Some of the Deists insisted on Immortality as involved in the very essence of the soul, and so self-evident as to be incapable of being confirmed by the testimony of Revelation. Others took the opposite extreme, denying immortality altogether.

§ 15. Later in the eighteenth century Andrew Baxter resumed the discussion. He was born in Aberdeen about 1686, and died 1750, was educated at the University, and spent his life as a private tutor in that city and on the continent. He is chiefly known by his elaborate treatise, entitled an "Enquiry into the Nature of the Human Soul, wherein the Immateriality of the soul is evinced from the principles of Reason and Philosophy." 2d edition. London, 1737.

The date of the first edition is unknown. The points which Baxter seeks to establish are the following: (1.) Inertia is an essential property of matter and is inconsistent with its possessing the active power which spirit manifests. (2.) All the effects ascribed to other material powers or properties are produced by the direct agency of some Immaterial Being. Hence there is a direct and constant and universal Providence. (3.) The soul is a simple and uncompounded substance—and is therefore naturally immortal. (4.) The *soul after death* is neither insensible nor inactive—as against Locke' view that matter may think. (5.) The arguments against the soul's immortality after the example of Lucretius are fallacious. (6.) The phenomena of dreaming cannot be explained by any mechanism of the body or its particles. (7.) Matter is real—as against Berkeley. (8.) Matter is neither eternal nor uncreated.

In 1750, Mr. Baxter published an Appendix to the first part of his Inquiry, in further vindication of his view that material phenomena are produced by the direct action of the Deity, and not by mechanism or second causes.

In 1779 was published The Evidence of Reason in proof of the Immortality of the Soul, independent of the more abstruse Inquiry into the Nature of Matter and Spirit, from the MSS. of Baxter. Baxter prepared for the use of his pupils—*Matho*, sive Cosmotheoria, puerilis dialogus, Lond. 1740, which was published in English in an enlarged form in 1745, under the title of *Matho*, etc., wherein, from the phenomena of the material world, briefly explained, the principles of Natural and Revealed Religion are deduced and demonstrated.

§ 16. The principal works in these several controversies are the following:—

Richard Bentley. Matter and Motion cannot Think; or, A Confutation of Atheism from the Faculties of the Soul. London, 1692.

Henry Layton. Observations upon a Sermon, intituled, A Confutation of Atheism, etc. London, 1692.

Timothy Manlove. The Immortality of the Soul asserted and practically improved. London, 1697.

Henry Layton. Observations upon a short Treatise written by Mr. Timothy Manlove; intituled, The Immortality of the Soul asserted. London? 1697?

Richard Burthogge. Of the Soul of the World; and of Particular Souls. London, 1699.

Henry Layton. An Argument concerning the Human Soul's Separate Subsistence. London? 1699?

William Coward, M.D. Second Thoughts concerning Human Soul, etc. London, 1702.

Matthew Hole. An Antidote against Infidelity. In Answer to a Book entitled Second Thoughts, etc. London, 1702.

John Turner. A Brief Vindication of the Separable Existence and Immortality of the Soul, from a Late Author's Second Thoughts. Lond., 1702.

Henry Layton. Observations upon a Treatise intituled, A Vindication of the Separate Existence of the Soul, from a Late Author's Second Thoughts, by Mr. John Turner. London, 1702.

Vindiciæ Mentis. An Essay of the Being and Nature of Mind, etc. London, 1702.

Henry Layton. Observations upon a Treatise intituled Vindiciæ Mentis. Lond., 1703.

Benjamin Keach. The French Impostour Detected; or, Zach. Housel tryed by the Word of God and cast, etc. Lond., 1703.

Alethius Phylopsychis, (pseudon.) Ψυχολογια; or, Serious Thoughts on Second Thoughts. Written in opposition to a book by Dr. Wm. Coward. Lond.

Henry Layton. Arguments and Replies in a Dispute concerning the Nature of the Human Soul, etc. Lond., 1703.

John Broughton. Psychologia; or, An Account of the Nature of the Rational Soul. Lond., 1703.

William Coward. The Grand Essay; or, A Vindication of Reason and Religion against the Impostures of Philosophy; with an Epistolary Reply to Mr. Broughton's Psychologia. 1704.

Henry Layton. Observations upon a Treatise entitled Psychologia, etc. Lond., 1703.

William Coward, M.D. Farther Thoughts concerning Human Soul, in Defence of Second Thoughts, etc., etc. Lond., 1703.

John Turner. A Farther Vindication of the Soul's Separate Existence, etc. Lond., 1703.

Lawrence Smith, LL.D. The Evidence of Things not Seen, etc. Lond., 1701? '03.

F. Gregory. Impartial Thoughts upon the Nature of the Human Soul, etc., occasioned by a book entitled Second Thoughts. Lond., 1704.

Henry Layton. A Search after Souls, etc. Lond., 1706.

Henry Dodwell. An Epistolary Discourse, proving, from the Scriptures and the First Fathers, that the Soul is a Principle naturally mortal, etc. Lond., 1706.

Edmund Chishull. A Charge of Heresy, maintained against Mr. Dodwell's late Epistolary Discourse. Lond., 1706.

Samuel Clarke. A Letter to Mr. Dodwell, wherein all the Arguments in his Epistolary Discourse are particularly answered, etc. Lond., 1706.

John Turner. Justice done to Human Souls, in a Short View of Mr. Dodwell's late Book, entitled An Epistolary Discourse. Lond., 1706.

Human Souls Naturally Immortal. Translated from a Latin Manuscript, by S. E. Lond., 1707.

Thomas Milles. The Natural Immortality of the Soul asserted and proved from the Scriptures, etc., in answer to Mr. Dodwell's Epistolary Discourse, etc. Oxford, 1707.

Daniell Whitby. Reflections on some Assertions and Opinions of Mr. Dodwell, contained in a book intituled An Epistolary Discourse, etc. London, 1707.

Human Souls Naturally Immortal. Translated from a Latin Manuscript, by S. E. With a recommendatory preface. By Jeremy Collier, M. A. Lond., 1707. Of the preface to this work Mr. Norris makes honorable mention in his Letter to Mr. Dodwell, p. 107, commending especially the following remark against Mr. Locke: "For if the idea of matter be complete without thinking, if there is no such faculty to be found about it, if there must be a foreign power superadded before anything of thought can emerge, it follows evidently from Locke's concession that a being capable of thinking must be of a nobler and quite different kind from matter and motion." The sentence following represents the doctrine of the times: "Now, from the soul's being immaterial, its immortality follows of course: that which is immaterial has no principles of dissolution in it."

John Norris. A Philosophical Discourse concerning the Natural Immortality of the Soul. Occasioned by Mr. Dodwell's late Epistolary Discourse. Lond., 1708.

Henry Dodwell. A Preliminary Defence of the Epistolary Discourse, etc. Lond., 1707.

———— The Natural Mortality of Human Souls clearly demonstrated from the Holy Scriptures, etc. Being an Explication of a famous passage in the Dialogue of St. Justin Martyr with Tryphon. With an Appendix consisting of a Letter to Mr. John Norris. Lond., 1708.

John Norris. A Letter to Mr. Dodwell concerning the Immortality of the Soul of Man. In answer to one from him. Lond., 1709.

John or Joseph Pitts. Ἡ χάρις δοθεῖσα, 2 Tim. i. 9,—that is, The Holy Spirit, the Author of Immortality, etc. A Vindication of Mr. Dodwell's Epistolary Discourse, etc. London, 1708.

Edmund Chishull. Some testimonies of Justin Martyr set in a true and clear light as they relate to Mr. Dodwell's unhappy Question concerning the Immortality of the Soul. London, 1708.

John Pitts. A Defence of the Animadversions on Mr. Chishull's Charge of Heresie against Mr. Dodwell's Epistolary Discourse. A Reply to a late Tract, some Testimonies of Justin Martyr. Lond., 1708.

John or Joseph Pitts. Immortality Preternatural to Human Souls, etc. A Vindication of Mr. Dodwell against that Part of Mr. Clark's Answer which concerns the Fathers. Lond., 1708.

Henry Dodwell. The Scripture Account of the Eternal Rewards or Punishments of all that hear the Gospel, etc. Lond., 1708.

William Coward, M.D. The Just Scrutiny; or, A Serious Enquiry into the Modern Notions of the Soul. Lond., 1706, or later.

Benj. Bayly. Of the Immortality of the Soul, and its Distinction from the Body. 1707?

John Witty. The First Principles of Modern Deism Confuted. Lond., 1707.

Benjamin Hampton, a barrister. The Existence of the Human Soul after Death proved from Scripture, Reason, and Philosophy. 1711.

Robert Bragge. A Brief Essay concerning the Soul of Man. Lond., 1725.

Andrew Baxter. An Enquiry into the Nature of the Human Soul, etc. London, 1745.

———— An Appendix to the First Part of the Enquiry into the Nature of the Human Soul, wherein the Principles laid down there are cleared from some Objections, etc. Lond., 1750.

Samuel Colliber. Free Thoughts concerning Souls; in Four Essays. Lond., 1734.

John Jackson, of Leicester. A Dissertation on Matter and Spirit; with some Remarks on a Book (by A. Baxter) entitled An Enquiry into the Nature of the Human Soul. Lond., 1735.

William Windle. An Enquiry into the Immateriality of Thinking Substances, etc. Lond., 1738.

Vincent Perronet. Some Inquiries chiefly relating to Spiritual Beings, etc. Lond., 1740.

A Letter to the Author (A. Baxter) of a book intituled An Enquiry into the Nature of the Human Soul wherein the State of the Soul, in its Separate Existence, is particularly considered. Lond., 1741.

———— Man More than a Machine. Wherein, 1, The Immateriality of the Soul is demonstrated. Lond., 1752.

An Enquiry into the Nature of the Human Soul: its Origin, Properties, and Faculties. Lond., 1750.

J. Robinson, M.D. Philosophical and Scriptural Inquiries into the Nature and Constitution of Mankind, considered only as Rational Beings, etc. Lond., 1757.

Caleb Fleming. A Survey of the Search after Souls, by Dr. Coward, Dr. S. Clarke, Mr. Baxter, Dr. Sykes, Dr. Law, Mr. Peckard, and others. Lond., 1758.

Peter Peckard. Observations on Mr. Fleming's Survey, etc. Lond., 1759.

Caleb Fleming. A Defence of the Conscious Scheme against that of the Mortalist. Occasioned by Mr. Peter Peckard's Observations on Mr. Fleming's Survey, etc. Lond., 1759.

An Essay towards demonstrating the Immateriality and Free Agency of the Soul. In Answer to two Pamphlets, etc. Lond., 1760.

Thomas Broughton. A Defence of the commonly received Doctrine of the Human Soul, as an immaterial and naturally immortal Principle in Man, against the Objections of some Modern Writers, etc. Bristol, 1766.

A Warning against Popish Doctrines; or, Observations on the Rev. Mr. Thos. Broughton's Defence of an Immortality in Man, etc. Lond., 1767.

CHAPTER IV.—Philosophy in Connection with the Deistical Controversy.

§ 17. The philosophy of the so-called English Deists was more or less affected by the school of Locke; and the philosophical defenders of Christianity naturally adapted their arguments of defence to the arguments which were employed.

To a certain extent, both attack and defence tried and tested the new philosophy, as they developed its defects and weaknesses, and manifested its strength to resist and reply. Inasmuch as the arguments of the assailants of Christianity were largely philosophical, the same was true of the arguments of its defenders. Hobbes and Lord Herbert of Cherbury represented each his own philosophical tenets; the influence of neither was set aside by the Essay on the Human Understanding. Conspicuous among the philosophical assailants of Christianity subsequent to Locke, are John Toland, Antony Ashley Cooper third Earl of Shaftesbury, Matthew Tindal, Antony Collins, Thomas Morgan, Bernard de Mandeville, and David Hume. Among the philosophical defenders of Christianity we name Samuel Clarke, D.D., John Brown, George Berkeley, Joseph Butler, and George Campbell.

The courses of sermons preached at the Lectures instituted by Sir Robert Boyle, particularly the earlier courses, from 1691 to 1732, 3 vols. folio, Lond., 1739, contain profound discussions of philosophical subjects, and give the reader an insight into the speculative activity of the English mind at this period. John Ray, 1627–1704, published in 1691, "The wisdom of God manifested in the works of Creation," one of the first attempts in the language formally to illustrate the truths of Natural Religion by examples of design or final cause, as manifested in nature.

Cf. John Leland, 1691–1766. A View of the principal Deistical writers, etc., etc.; London, 1754–56, 3 vols. Philip Skelton, Deism Re-

vealed: 2 vols., London, 1749. G. Lechler: Geschichte des Englischen Deismus, 1841. A. S. Farrar, "A Critical History of Free Thought." London and New York, 1863. John Hunt, "History of Religious Thought in England," etc. Lond., vol. I., 1870; II., 1871.

PHILOSOPHICAL ASSAILANTS OF CHRISTIANITY.

John Toland,* 1669–1722: published in 1696, "Christianity not mysterious," the design of which was to show, that "there is nothing in the Gospels contrary to reason, nor above it; and that no Christian doctrine can properly be called a mystery." He explains the province of reason and the means of information which man has, both external and internal, and asserts that statements contradictory to reason cannot be received, and if above reason they cannot be understood. Moreover reason, being the only guide, is a safe guide. Last of all, Christianity does not claim to be mysterious.

It is worth noticing that Toland was the immediate occasion of the attack upon Locke by Stillingfleet. Locke resented with some spirit being associated with Toland as of "the new way of thinking."

Antony Collins, 1676–1729; Eton and King's Coll., Cambridge, published an Essay concerning the use of Reason in Theology, Lond., 1707. A Discourse on Freethinking, 1713. A Philosophical Inquiry concerning Human Liberty and Necessity, 1715. A Discourse of the Grounds and Reasons of the Christian Religion, 1724. Scheme of Literal Prophecy considered, etc., 1727.

The Essay on the use of Reason in Religion was designed as a reply to Archbishop King's sermon on Predestination, in which the philosophical principles of Bishop Peter Brown are applied to this theological doctrine. It is an able discussion of the grounds and limits of our knowledge of God.

The Discourse on Freethinking discusses the relation of Reason to the acceptance and the interpretation of Revelation, with great acuteness and ability, in a spirit not favorable to much of the current theology of the time. Richard Bentley assailed this treatise under the name of *Philentheros Lipsiensis*.

The Enquiry concerning Human Liberty attracted great attention in its time, and expounded with great dialectical skill the ruder and less completely developed doctrine of Hobbes, which had been in part sanctioned by Locke. The author denies Liberty, in a certain meaning of the word, but he contends for it when it signifies "a power in man to do as he wills or pleases." (2.) When he affirms necessity, he contends for "what is called *moral* necessity, meaning that man, who is an intelligent and sensible being, is determined by his reason and senses," in contrast with clocks and watches, which for want of sensation and intelligence are subject to an absolute physical or mechanical necessity.

3. He contends that his views are the sole foundation of morality, and rewards and punishments in society. His arguments are six, viz.: 1. From experience; 2. from the impossibility of Liberty; 3. from the imperfection of Liberty and the perfection of

* In 1693 the miscellaneous works of Charles Blount, 1654–1693, with papers by other writers, were published after his death, under the title of "Oracles of Reason." Locke's treatise on the "Reasonableness of Christianity" was published in 1693. In 1794, Charles Leslie published A Short and Easy Method with Deists. In 1697, Dr. John Cockburn published an Enquiry into the Nature, Necessity, and Evidence of the Christian Faith.

Necessity; 4. from the consideration of the Divine prescience; 5. from the nature and use of rewards and punishments; 6. from the nature of morality.

Six objections are answered, viz.: 1. That if men are necessary agents, punishments are unjust; 2. and are useless; 3. reasoning, entreaties, blame, and praise are useless; 4. also the use of any physical remedies is useless; 5. the reproaches of conscience are groundless; 6. the murder of Julius Cæsar could not possibly have been avoided.

The Enquiry may be said to exhaust the argument for Philosophical Necessity, by presenting all the considerations in its support in the briefest language, covering the most comprehensive import. The objections are disposed of with great skill and the answers are stated with conciseness and point. Though one of the shortest philosophical treatises in the English language, it is one of the ablest, the most characteristic, and the most influential. The attacks and criticisms of Collins upon the Christian system were exegetical chiefly, and therefore do not require notice here.

So formidable were his writings on Prophecy regarded, as to have received in all thirty-five answers. Among these are those of Bishop Edward Chandler, Dr. Samuel Clarke, and Arthur Ashley Sykes. Collins had been an intimate friend of Locke, and was distinguished for acumen and logical vigor and boldness, with a certain nobleness of nature which reminds us of Lessing. Critics differ as to what were his real opinions with respect to the Christian Revelation.

In 1729, after the death of Dr. Samuel Clarke, Collins published a vindication of his Inquiry, in a treatise "On Liberty and Necessity." This defence was answered by two Anglican divines; viz., John Jackson, 1686—1763, in a Defence of Human Liberty, in the 2d ed., 1720, and Dr. Phillips Gretton, in Remarks on Two Pamphlets, by A. C., Esq., 1730.

Antony Ashley Cooper, third Earl of Shaftesbury, 1671–1713, taught an elegant Platonism, with no special philosophic depth or exactness, and owed his influence chiefly to his ornate and popular diction, and his social position. His writings are, Characteristics of Men, Matters, Opinions, and Times, 1711–23, which is a collection of tracts published at different periods of his life; also, Letters, by a noble Lord to a Young Man at the University, 1716. He held the doctrine of innate ideas in decided opposition to Locke, and argued from it, in the manner of Herbert of Cherbury, that a supernatural revelation was not required. He urged moreover that such a revelation was not only useless but mischievous, as any influences derived from the consideration of reward or punishment must be mercenary, and therefore demoralizing. He defined virtue as "a conformity of our affections with our natural sense of the sublime and beautiful in things, or with the moral objects of right and wrong." The Inquiry concerning Virtue, according to Sir James Mackintosh's *Progress of Ethical Philosophy*, "contains more intimations of an original and important nature than perhaps any preceding work of modern times."

Shaftesbury contends for the existence of disinterested affections in man, as against Hobbes. Moral goodness consists in the prevalence of love for the general over private good. The sense of right or wrong is a reflex sense. In these doctrines he anticipates Hutcheson, and may be said to have originated the phrase, *the moral sense*. His demonstrations of the nobleness of virtue are eloquent and able. Even the relation of religion to morality, when stated without reference to Christianity, is beautifully and truly expressed.

Matthew Tindal, 1657–1733, published, 1732, Christianity as Old as the Creation, which attracted general attention, and deserves a special interest from the circumstance

"that it was this book to which, more than to any other single work, Bishop Butler's Analogy was designed as a reply." Tindal says that natural religion is complete and sufficient, and that consequently a revelation is unnecessary, and any obligation to accept it is impossible. All religion must have one aim, to achieve human perfection by a life according to human nature. The inculcation of positive as distinguished from moral duties is inconsistent with the good of man by creating an independent rule. Christianity can therefore be only a republication of the law of nature.

Thomas Morgan, d. 1743, published The Moral Philosopher in 1737. He makes moral excellence the only test of every system of religion, and argues that an historic revelation of positive duties is inadmissible. The Jewish and Christian systems when tried by this test are found wanting. This work was the immediate occasion of Bishop Warburton's Treatise On the Divine Legation of Moses; 1737–38.

Bernard de Mandeville, M.D., 1670–1733, was a native of Dort, Holland, but a resident in England. He was a prolific author on various subjects, and some of his works are notoriously indecent. The work by which he is best known in philosophy is The Fable of the Bees; or, Private Vices Public Benefits. 1714. Enlarged, 1723. 2d part, 1728; both parts, 1732–1795.

The ethical theory, if his theory may be called ethical, is indicated by the title of his notorious work: What is called a vice is in fact a public benefit. There is no distinction between the moral impulses or springs of action. Each in its place is natural and legitimate, and the general welfare is best promoted by giving indulgence to all. The restraints on human desires and passions by the magistrate and the priest are factitious and unnatural. While Hobbes contended that the ethical distinctions which are made by the community are in a sense necessary to the public good, Mandeville taught that any restraint upon private vices is simple usurpation.

The theory of Mandeville, like that of Hobbes, is chiefly of importance in the history of English speculation, because it aroused counter-theories and stimulated to profounder inquiries.

§ 18. David Hume, cf. pp. 130–4. To the text of Ueberweg we add the following in respect to this very able philosopher. Hume's Essay, Of Miracles, and his Dialogues concerning Natural Religion, deserve special notice. The Essay of Miracles aroused general attention and provoked active criticism. Its doctrine is, "that no testimony is sufficient to establish a miracle, unless the testimony would be more miraculous than the fact which it endeavors to establish; and in that case there is a mutual destruction of arguments, and the superior only gives us an assurance suitable to that degree of force which remains after deducting the inferior." In other words, it is not contrary to experience that men should be deceived or utter falsehood. It is contrary to experience that a miracle should be performed. Therefore it is rational, *i. e.*, according to experience, to reject any testimony rather than to credit any miracle. It may be questioned whether Hume had any right, according to the principles of his fundamental philosophy of causation, etc., to appeal to experience at all; experience being with him only customary or prevailing associations.

The Dialogues on Natural Religion are in a skeptical spirit. The personages in the dialogues do indeed represent almost every shade of opinion and method of argument; but the ablest and most elaborate argument offered is to this effect, that when we apply to the explanation of the origin of the universe any reasoning from effect to cause, or from designed effects to a designer, we transcend altogether the limits prescribed by experience. We are only justified in reasoning to either conclusion when we have observed causes like those with which we are familiar, to produce effects or designs which are similar. In other words, the causes and effects, the designers and the designs of experience are uniformly finite. We have no experience which warrants us in proceeding from a finite to an infinite. In like manner, experience does not warrant us in conceiving at all of an infinite and uncreated being. Moreover, we cannot, if we would, form any definite conception of such a being, or of his attributes. It follows that philosophy justifies neither the processes nor the results propounded in Natural Religion.

It is questioned by some of the critics of Hume (notably by Sir William Hamilton, cf. Hamilton's Reid, pp. 129, 444, 457, 489), whether his skeptical arguments are offered in a spirit of hostility to the processes of common sense and the truths of religion, and not rather in a spirit of hostility to philosophy itself, by representing the results of its analysis as equally probable in favor of and against two opposite directions of thought. The form of dialogue which is adopted by Hume in this discussion favors somewhat this construction; but it cannot be reconciled with the impression left upon the unbiassed mind, that Hume had no confidence in speculation of any kind when applied to super-sensual or spiritual beings and relations.

P. S. Henry St. John, Viscount Bolingbroke,—1678–1737,—has been sometimes counted among the philosophical assailants of Christianity of the eighteenth century, but unreasonably. Whatever other merits his writings on these subjects may have had, they scarcely deserve to be called philosophical.

Philosophical Defenders of Christianity.

Samuel Clarke and His School.

§ 19. Samuel Clarke, D. D., was born in Norwich, 1675, Caius Coll., Camb., Rector of St. James, Westminster, 1709; died, 1729. At the age of twenty he produced an improved translation of Rohault's Physics on the principles of Descartes, the received text-book in Physics at Cambridge. To this translation, published in 1697, he appended copious notes, which refuted the doctrines taught in the text and substituted for them those of Sir Isaac Newton. His contributions to Philosophy were, a Discourse concerning the Being and Attributes of God; the Obligations of Natural Religion and the Truth and Certainty of the Christian Revelation, etc. This treatise was originally composed as two series of sermons, and preached in 1704–5 at the Lecture instituted by the Hon. Robert Boyle. A letter to Mr. Dodwell about the Immortality of the Soul, etc., 1706. A Collection of Papers which passed between the late learned Mr. Leibnitz and Dr. Clarke in the years 1715 and 1716, relating to the principles of Natural Philosophy and Religion, to which are added Letters from Cambridge to Dr. Clarke, concerning Liberty and Necessity, with the Doctor's answers, 1717. Remarks upon a Book entitled A Philosophical Enquiry concerning Human Liberty, 1717. A letter to Mr. Benjamin Hoadly, F.R.S., occasioned by the controversy relating to the proportion of Velocity and Force in Bodies in Motion. Phil. Trans., No. 401. 1728.

In these treatises theological doctrines are more or less freely discussed and the theological applications of philosophical principles are prominently considered; yet there is taught a system of philosophy which in many particulars was distinct and independent of the principles and method inculcated by Locke, cf. p. 370.

In the discourse concerning the Being and Attributes of God he attempts an *à priori* demonstration, which comprehends the following Theses:

(1) Something has existed from eternity. This is true, whether eternity is or is not

conceivable. (2) This something is an immutable and independent Being, for it is impossible to conceive an eternal succession of dependent beings. (3) This Being must be self-existent, *i. e.*, necessarily existent, because to suppose such a being non-existent would involve a contradiction, chiefly because it would oblige us to believe in infinite space and infinite time without a substance of which these are modes. This being cannot be the material world, either in its matter or motion. Nor is it necessarily true that, according to Spinoza, the material world should be a part or a mode of the one substance of this writer. (4) The substance or essence of this self-existent substance is incomprehensible. Infinite space does not adequately set it forth. The definitions of the Schoolmen, *e. g.*, *Purus actus*, *mera forma*, signify nothing except the perfection of his attributes. (5) Many of his attributes, however, are demonstrable, *i. e.*, are involved in the nature of things: and first, he is eternal. (6) He is also infinitely omnipresent in his essence and attributes. (7) He is necessarily but one. (8) He is intelligent. This is not easily proved *à priori*, but demonstrable *à posteriori*, from the variety and degrees of perfection in things, and from the intelligence that belongs to created beings. Such intelligence is a distinct quality and cannot be a property of matter. Matter cannot think. This is further demonstrated from the beauty, order, and final cause of things. (9) This self-existent and intelligent agent is a being endued with liberty and choice; this follows from the preceding, as well as from the evidence from final causes and the finiteness of the creation. It is not refuted by Spinoza's argument for necessity in the activities of God. (10) The same has infinite power. This reaches to all things not involving a contradiction in thought or natural imperfection in the being who acts. It includes the power of creating matter and free spiritual beings who are capable of originating motion (as against Hobbes upon all these points). (11) He must be infinitely wise: proved *à priori*, and from the works of God. (12) He is a being of infinite goodness, justice and truth. These moral attributes are consistent with God's natural liberty, and with the eternal necessity of the grounds of all moral obligation.

The discourse concerning the eternal and unalterable obligations of natural religion and the truth and certainty of the Christian Revelation also contains Clarke's views of moral distinctions. These are as follows:—The eternal and necessary relations of things make it fit that both creatures and the creator should act in accordance with them, separately from any command of the Creator, or any foreseen advantage or disadvantage which may follow such actions. It is fit, however, that the Creator should enforce this fitness by his positive commands, and by rewards and punishments. Inasmuch as the original tendency of things to reward virtue and to punish vice has failed to be effectual in the present condition of human existence, there must be a future state of existence for men in order that this adjustment may be complete. Though men might discern this tendency of things, would they give their attention to it? Inasmuch as they do not, there is need of a special revelation. Though reformers have occasionally appeared who have resisted the tendencies to vice and sin, they have not been so successful as to dispense with the necessity that men should be divinely commissioned for this service. The Christian Revelation is the only one which is properly attested by its conformity to the truths of Natural Religion and its external evidences.

Appended to this volume are several letters to Dr. Clarke from a gentleman of Gloucestershire, relating to the argument for the Being and Attributes of God, with the answers thereto. The gentleman from Gloucestershire was Joseph Butler, then a student in a dissenting academy in Tewkesbury, afterwards Bishop of Durham, and

the author of the Analogy of Religion, Natural and Revealed, to the Constitution and Course of Nature. To these are added two letters to another critic of his argument. The letters written by Clarke and Butler have almost invariably been published in the Works of Butler.

The collected papers which passed between Leibnitz and Clarke were occasioned by a brief paper from Leibnitz reflecting on the alleged materialistic tendencies of the metaphysical philosophy of Locke, and the mathematical philosophy represented by Sir Isaac Newton. The counter-paper in reply by Clarke opened a discussion extending to five papers from each of the correspondents, in which the opinions of each were fully explained and defended in respect to space and time, the doctrine of the Sufficient Reason as involving the nature of Space and Time, the possibility of Liberty, the relation of the Creator to the universe, the connection of soul and body, etc. Dr. Clarke, though not a formal defender of the philosophy of Locke, never formally dissents from him. In his doctrine of Space and Time as attributes of the Creator he goes beyond him, and in his demonstration of the Existence of God by a formal application of the law of contradiction as a test for necessary truths, he reminds the reader of Wolf more than of Locke. He introduced into natural theology a broader metaphysical foundation than any which Locke provides, and employs an argument which is sanctioned neither by Locke's doctrine of the origin of ideas or his doctrine of necessary relations. His influence is to be traced in much of the subsequent speculation of English theologians.

Clarke's views of the Liberty of the Will are stated and defended in all his philosophical writings. They are the sole topic of his Remarks upon a book entitled A Philosophical Enquiry concerning Human Liberty (by Antony Collins), Lond., 1717, and in Letters to Dr. Clarke concerning Liberty and Necessity, from a gentleman of the University of Cambridge, with the Doctor's Answers to them, Lond., 1717. The principal points on which Clarke insisted in his defences of Liberty was that all proper action of the soul was *ipso facto* free action; that so far as the soul is acted upon, it is subject to necessity, whether the result is corporeal or intellectual; that the laws which determine the judgment of the understanding next preceding any activity are diverse from those which pertain to the production of the action itself. Brutes are free so far as they can act; their activity is spontaneous. When the activity of men is attended by a sense of right and wrong it becomes moral.

We have already observed that the discussions prosecuted by Clarke gave a new direction to speculation in England, and almost created a special school which swerved materially from the direction and limits which had been prescribed by Locke. The views which he advanced in respect to space and time, and their relation to the existence and attributes of the Deity, aroused not only sharp criticism, as we have seen, from the youthful Butler and the veteran Leibnitz, but set in motion a series of discussions from other able but less familiarly known writers. Among them were Edmund Law, Daniel Waterland, John Jackson, John Clarke, Joseph Clarke, Isaac Watts, and others.

§ 20. Among the writers who have a more or less intimate relation to the school of Clarke are the following:—

Edmund Law, D.D., 1703–1787, of St. John's College, Camb., translated into English Archbishop King's Essay on the Origin of Evil, with copious notes, 1731, 4to; with additions from the author's MSS., 1732; also published Inquiry into the Ideas of Space, Time, Immensity, and Eternity; as also the Self-Existence, Necessary Existence, and Unity of the Divine Nature, Camb., 1734. The Preliminary Dissertation, by

Rev. Mr. Gay, of Sidney College, Cambridge, concerning the fundamental principle of virtue or morality, is important in the history of ethics as containing an assertion of the principles of Richard Cumberland as against the ethical theory of Clarke. By a more distinct recognition of the relations of all active impulses to the desire of happiness, it prepared the way for the development of the Utilitarian theory. It is also significant for its recognition of the power of *association* in the formation of special moral standards, as also of all judgments whatever. In the notes to King's Essay, Law controverted the doctrines of Dr. Samuel Clarke in respect to Space and Time, contending that neither has any proper real existence. This attack aroused Dr. John Jackson to the defence of Clarke, in a treatise entitled The Existence and Unity of God proved from his Nature and Attributes, etc., Lond., 1734, which reasserted Clarke's doctrines in respect to Space and Time, etc. John Jackson was a divine of the school of Clarke, 1686–1763, entered Jesus Coll., Camb., 1702, and Rector of Rossington, 1710, Master of Wigton's Hospital, 1729. John Clarke, d. 1759, Dean of Sarum, wrote three treatises in defence of his brother, Dr. Samuel Clarke, besides sermons in 1719, for the Boylean Lecture, On the Cause and Origin of Evil. Joseph Clarke, Fellow of Magdalen Coll., Camb., replied in two treatises. The title of the first treatise, which was anonymous, was as follows: Dr. [S.] Clarke's Notions of Space Examined in Vindication of the Translator of Archbishop King's Origin of Evil. Being an answer to two late pamphlets, entitled, the one, A Defence of Dr. Clarke's Demonstration of the Being and Attributes of God, etc., Lond., 1733; the other, A Second Defence, etc. The title of the second was, A Farther Examination of Dr. Clarke's Notions of Space; with some considerations on the Possibility of Eternal Creation, in reply to Mr. John Clarke's Third Defence of Dr. Samuel Clarke's Demonstration, etc. To which are added, Some Remarks on Mr. Jackson's Exceptions to Dr. Clarke's Notion of Space Examined, in his Existence and Unity of God, etc. By Joseph Clarke, M.A., Camb., 1734. In the same fruitful year Dr. Isaac Watts published the 2d edition (1st edition, 1733) of his Philosophical Essays on Various Subjects, viz., Space, Substance, Body, Spirit, the Operations of the Soul in Union with the Body, Innate Ideas, Perpetual Consciousness, Place and Motion of Spirits, the Departing Soul, the Resurrection of the Body, the Production and Operation of Plants and Animals: with some Remarks on Mr. Locke's Essay on the Human Understanding. To which is subjoined a brief scheme of Ontology, etc. Dr. Watts, 1674–1748, hymn writer and divine, also published a much-used Treatise on Logic, with a Supplement well known under the title of Improvement of the Mind. Watts dissents from Samuel Clarke's Ontology and Locke's Essay in some important particulars, and did much for the maintenance and the wise direction of an interest in speculative thinking in England.

Intimately connected with Isaac Watts is Philip Doddridge, 1702–1751, a distinguished preacher and theologian. He was for many years at the head of a theological academy. The Lectures on Pneumatology, Ethics, and Divinity, which were delivered to his pupils, were published after his death in 1763, and subsequently, with many references to authors, by Rev. Andrew Kippis, in 1794. These lectures present a very instructive exhibition of the methods and results of philosophical inquiry and instruction in the middle of the last century.

William Wollaston, 1659–1724, may almost be considered as a disciple of Samuel Clarke. He published, in 1722, Religion of Nature Delineated, of which, in 1738, 10,000 copies had been sold. It is in the main a popular rather than a scientific treatise upon the principal topics in Ethics and Natural Theology. The characteristic of this treatise is that it makes virtue to consist in acting according to the truth. Examinations of this treatise were published by Thomas Bott, 1725, John Clarke, also by S. Colliber, 2 vols., 1731–35.

John Balguy, 1686–1748, St. John's Coll., Camb., published, in 1728, The Foundation of Moral Goodness; or, A Further Inquiry into the Original of our Ideas of Virtue, in answer to Hutcheson's Inquiry, etc. Thomas Rutherforth, D.D., or Rutherford, 1712–1771, St. John's Coll., Camb., Prof. of Divinity, etc., published, 1744, Lond., An Essay on the Nature and Obligations of Virtue, in which he combats the doctrines of Clarke and Wollaston and expounds and defends those of Bp. Cumberland; also, Institutes of Natural Law, Lond., 1754–56. George Turnbull, Principles of Moral Philosophy, Lond., 1840, Daniel Whitby, 1638–1726, well known for many theological treatises, also John Taylor, 1694–1761, another prolific and able theologian, contributed to the philosophical activity and productions of their times, particularly in the application of philosophy to theology.

Other Defenders of Christianity.

§ 21. John Brown, D.D., 1715–1766, St. John's Coll., Cambridge, published Essays on Shaftesbury's Characteristics, London, 1751. 5th edition, 1764: also, Estimate of the Manners and Principles of the Times, London, 1757, which went through seven editions the first year after its appearance.

The "Essays on the Characteristics" were written at the suggestion of Warburton. These are three: (1.) On Ridicule as a Test of Truth; (2.) On the Motives to Virtue; (3.) On Revealed Religion. The second of these Essays is the only one of philosophical importance, and discusses the much vexed question of the relation of Virtue to Happiness, as against the implied insinuations and the direct attacks of Shaftesbury, that Christianity was mercenary in its motives and selfish in its spirit. For its ability and its acuteness it deserves attention in the history of English Ethics.

George Berkeley, cf. p. 88; not only deserves the brief notice which he has already received for his well-known theory of the non-existence of matter, but also for the special application which he made of this theory in the refutation of the skepticism and free-thinking of his time. He contends that the belief in the existence of matter necessarily involves Atheism as its necessary attendant and logical consequent. In his Alciphron, or the Minute Philosopher, 1732, written during his sojourn of two years in America, near Newport, R. I., he gives an extended philosophical argument for the existence of God, in which the material universe is conceived and set forth by him as a system of symbols or language through which the Deity makes his being and his attributes known to man. In illustrating the possibility of this he avails himself of the illustrations derived from our natural judgments concerning the sensible qualities of matter, which he had explained at length in the *Theory of Vision*. The Essay on this topic, originally published in 1709, when he was 23 years old, is one of the most important contributions to the analysis of sense-perception in the English language, and most important as reviving Idealism in Great Britain. In 1733 he published *A Vindication of the Theory of Vision*. Cf. Samuel Bailey, *Review of Berkeley's Theory of Vision*, London, 1842; also T. K. Abbot's *Sight and Touch: An attempt to disprove the received theory of vision*. London, 1864. The careful analysis of the processes of vision by Berkeley gave color and plausibility to his Idealism, and opened the way for the still more exact analysis of the later philosophers who attempted to refute him. In 1710 he published *The Principles of Human Knowledge*, and in 1713 *Three Dialogues* between Hylas and Philonous. In these two treatises he exhibits his ideal system,

which teaches that ideas are whatever is perceived, and these are the only realities; that these realities exist only so far as they are perceived—that our higher knowledge of these ideas or realities only respects their relations to one another or what they signify. The possibility of any permanent relations or signification in these ideas is provided by supposing that God is the permanent upholder of these ideas. What seems, or is taken to be, the material universe is simply the manifested ideas of God. In 1712 Berkeley published *Three Sermons in Favor of Passive Obedience and Non-Resistance*, which are of some significance in the history of ethical and political philosophy. In 1735 he published *The Analyst*, the design of which was to show that the higher mathematics involve mysteries as truly as the doctrines of Christianity. This was followed in 1735 by a second Tract, entitled, *A Defence of Freethinking in Mathematics*. *The Querist*, published in 1735, propounds not a few ingenious and suggestive topics in philosophy. *Siris*, 1744, begins with the merits of tar-water as a remedy in disease, and carries the reader along the ascending scale of philosophical and theological speculation till he reaches the idea of the Infinite. The acuteness of Berkeley's analysis, the vigor of his reasoning from assumed premises, and the transparency of his style give him a high place among English philosophers.

The Theological Idealism of Berkeley suggests the name of Arthur Collier, who deserves some additional notice.

He was born at Langford Magna, where he was subsequently rector, 1680, and died 1732. He was a near neighbor of John Norris, of Bemerton, who died in 1711. In 1713 he published *Clavis Universalis*, etc., being a Demonstration of the Non-Existence or Impossibility of an External World. In 1730 Sarum,—he published a Specimen of True Philosophy; republished as Nos. I., II. of Metaphysical Tracts, by English Philosophers of the Eighteenth Century. Edited by Samuel Parr, D.D., London: Edward Lumley, 1837; also 1732, *Logology*, A Treatise on the Logos, etc.,

The arguments of Collier are unlike those of Berkeley, whose treatises seem not to have been known by him or to have exerted any influence over his speculations. He does not reject a sensible world—he emphasizes rather the proposition that the sensible world exists, but argues that a sensible world must in part depend on the senses of the percipient. We perceive the world to be external, but it is made to be external by our own act of perceiving it. After this analysis of what this world is, as it is given to our senses and in fact created by them, he proceeds to demonstrate by nine arguments that the ordinary conception of the external world is involved in inextricable contradictions.

The other works of Collier set forth the Logos as the original principle of all material and all created existence—all things having their being in him. God is to be distinguished as God *absolute* and God *respective*, expressed by the Father and the Son in the New Testament.

§ 22. Joseph Butler, 1692–1752, was born at Wantage. He studied first at a Dissenting academy in Tewkesbury, and afterwards as commoner at Oriel College, Oxford; 1718–1726 preacher at the Rolls Chapel in London; also, 1722–1733, rector at Haughton and Stanhope; 1736, "clerk of the closet" to the Queen; 1738, bishop of Bristol; 1750, bishop of Durham. At nineteen he addressed a series of letters to Dr. Samuel Clarke, criticising some of the arguments in his Demonstration of the Being and Attributes of God. In 1726 he published fifteen sermons preached at the Rolls Chapel; in 1736, The Analogy of Religion to the Constitution and Course of Nature. The Sermons, with an Essay on the Nature of Virtue, Diss. 2, Appendix to the Analogy, contain the elements of his Ethical and Religious philosophy. These doctrines are practical rather than speculative in form, but are positive and well-argued propositions in opposition to Hobbes, Mandeville, Shaftesbury, and other free-thinkers. 1. Man is capable of disinterested affections. 2. Man is a social as truly as he is an individual being in his relations and susceptibilities. 3. Man is possessed of conscience, which by its very nature is endowed with authority, and in this particular differs from the other impulses and springs of action. This authority he defines still further as that obligation which is implied in the very idea of reflex approbation. 4. Virtue is activity according to nature, when nature is thus interpreted as enforcing the natural supremacy of certain principles of action. 5. Conscience is a complex endowment, "including" both "a sentiment of the understanding" and "a perception of the heart." 6. Virtue, or a life according to nature or reason, does not consist solely of benevolence, but respects also our duties to ourselves; also the duties to others of truth, and gratitude, and justice. 7. As there is a natural sentiment of interest in, or compassion for, others, so there is a natural tendency to resentment against those who injure us, called by Butler *sudden resentment*, which is provided to defend us against injury; when this is excessive or misdirected it is called *deliberate resentment*. 8. Man is capable of love to God, *i. e.*, of the several affections of reverence, gratitude, etc., which a good man would naturally exercise towards a moral person of infinite moral excellence.

The Analogy of Religion to the Constitution and Course of Nature was directed against the Free-thinkers of Butler's time, whose positions he briefly describes in the advertisement and introduction. Its leading doctrine is, that we find the same difficulties in the Scriptures which we find in the operations of nature, and this should lead us not only to reject all arguments against the Scriptures which are founded on these difficulties, but to infer that probably both proceed from the same Author. It is divided into two parts. The first treats of Natural Religion, and the second of Revealed Religion. In the first the following topics are treated, viz.: A Future Life. The Government of God by Rewards and Punishments, and particularly by the last. The Moral Government of God. A State of Probation as implying Trial, Difficulties, and Danger; also as intended for Moral Discipline and Improvement. The Doctrine of Necessity considered as influencing Practice. The incomprehensibleness of the Government of God, considered as a scheme or constitution. In the second part the following topics are treated: The importance of Christianity. The supposed presumption against a Revelation, considered as miraculous. Our incapacity to judge of what is to be expected in a revelation, and the credibility from Analogy that it must contain things appearing liable to objections. Christianity as a scheme is imperfectly comprehended. The appointment of a Mediator. The want of universality and supposed deficiency in the proof of Revelation. The particular evidence for Christianity. The Objections against arguing from the Analogy of Nature to Religion, being the conclusion of both parts, and the application of the argument in both. A dissertation on personal identity is appended to the Analogy, which criticizes the doctrines of Locke upon this point.

The influence of Butler upon Ethical and Religious philosophy has been powerful wherever the English language is spoken and read, and probably surpasses that of any other single writer. This is not owing to the originality of his doctrines so much as to the compact form in which he has presented the reflections which had been suggested to many minds, and to the cautious and reverent spirit in which he mediates between the claims of independent thought and a revealed communication of Truth. His Analogy has been extensively studied and read as a text-book in all the seminaries

of higher learning, and has largely served to shape and strengthen the religious convictions of the English people. The Sermons, though less generally read or studied, have exerted a pervading influence upon ethical philosophy. The Analogy and Sermons have also been efficient in introducing into Christian theology the ethical element, which sometimes it has greatly needed.

George Campbell, D.D., 1719–1796, of Marischal College, Aberdeen, principal of the same 1756, published a Dissertation on Miracles in reply to Hume, Edin., 1762, many editions; also translated into French, Dutch, and German. Also Philosophy of Rhetoric, Lond., 1776, also in many editions; besides several able and well-known theological treatises.

The Dissertation on Miracles controverted the philosophical positions taken by Hume in respect to the relative force of the evidence from experience and the evidence from testimony. It necessarily involved an examination into the grounds of all knowledge and the principles of belief. Some of these positions have been more or less extensively controverted. They are not unlike those accepted by the philosophers of the Scottish school. In the Philosophy of Rhetoric the author discusses the various descriptions of evidence, and especially the doctrine of the Syllogism, with great acuteness, taking the positions adverse to this form of reasoning and its rules which have been advanced by Locke and the Scottish philosophers, and have been extensively current among English writers. The doctrines and arguments of Campbell have uniformly attracted attention and commanded respect.

CHAPTER V.—THE ASSOCIATIONAL PSYCHOLOGY.

§ 23. THE Association or Associational Psychology is a type of philosophical thinking which very early took a definite form in England. The successive writers by whom it was developed in the last century are Hobbes, Locke, 4th ? edition of the Essay, cf. p. 363; Rev. Mr. Gay, cf. p. 382; David Hartley, Joseph Priestley, Erasmus Darwin and Abraham Tucker.

David Hartley, 1705–1757, was scholar and fellow of Jesus College, Cambridge; a physician at Newark Priory, St. Edmunds, London and Bath. In 1749, Lond., 2 vols. 8vo, he published Observations on Man, his Frame, his Duties, his Expectations. It was republished by his son, 1791, with Notes and Additions, from the German of H. A. Pistorius, Rector of Poseritz, Island of Rügen. Again, with additions, by Dr. Joseph Priestley, 1801, 3 vols. 8vo.

An Essay in Latin, with the title Conjecturæ Quædam de Sensu, Motu et Idearum Generatione, David Hartley auctore, was prepared for the press by Dr. Samuel Parr, with other works, under the title, Metaphysical Tracts by English Philosophers of the eighteenth century. London, Edward Lumley, 1837.

In the same collection of Tracts is also republished an anonymous Essay, with the following title: "An Enquiry into the Origin of the Human Appetites and Affections, showing how each arises from Association, with an account of the Entrance of Moral Evil into the world. To which are added some remarks on the Independent Scheme, which deduces all obligation on God's part and Man's from certain Abstract Relations, Truth, etc. Written for the use of the young gentlemen at the Universities. Lincoln, 1747." This was published anonymously, and republished in 1758. Even Dr. Parr did not know the name of the author. Edward Tagart (Locke's Writings and Philosophy, 1855) pertinently inquires whether it could have been the modest Mr. Gay, the author of the dissertation attached to Law's Translation of King, on the Origin of Evil, 1733, and which incited Hartley to the researches which resulted in his theory.

The system which Hartley developed in this treatise includes three positions: that there are vibrations within the substance of the brain, that there is action of association in the soul, and that the last is dependent on the first. Certain passages from the Optics and Principia of Sir Isaac Newton was the occasion of the first, and the Essay of Rev. Mr. Gay preliminary to King on the Origin of Evil directed his thoughts to the second. The two being independently established are naturally connected with one another.

Hartley's doctrine of vibrations is summed up as follows:—The white medullary substance of the brain, spinal marrow and nerves, is the material instrument of sensation and motion. That of the brain is the immediate instrument by which ideas are presented to the mind; external objects as impressed on the nerves and brain occasion vibrations of infinitesimal medullary particles. These vibrations are excited, propagated and sustained partly by an ether within this substance and partly by the uniformity, continuity and active powers of the medullary substance. The phenomena of pleasure and pain are congruous to the doctrine of vibrations, and also those of sleep.

Sensations by being repeated leave vestiges, types or images of themselves, which are *simple ideas* of sensation. Sensory vibrations by being repeated beget in the medullary substance a disposition to diminutive vibratiuncles corresponding to themselves respectively. Any sensations, A, B, C, by being associated with one another, get such a power over the corresponding *ideas*, *a*, *b*, *c*, that any one, as A, can excite *b*, *c*, *d*, etc. Any vibrations, A, B, C, by association get such power over the *vibratiuncles*, *a*, *b*, *c*, *d*, that any one can excite *b*, *c*, *d*. Simple ideas run into complex ones by means of association. In such cases the simple miniature vibrations run into the correspondent complex miniature vibrations. Some of the complex vibrations attendant on complex ideas may be as vivid as any of the sensory vibrations excited by the direct action of objects.

Muscular motion, in the two forms of automatic and voluntary, is explained by the joint action of vibrations and associations. The phenomena of the special senses are explained in like manner by these agencies, and by the varieties of the external structure of the several organs. The involuntary motions involved in respiration and the action of the heart are accounted for in the same way.

The meaning of words and the use of words are explained by similar laws.

Propositions also, and *assent* are explained by inveterate associations, and by means of vibrations, and this whether the assent is *rational* or *practical;* the first pertaining to ideas associated with ideas, or ideas associated with sensations; and the second involving the association of a tendency to action with either an idea or a sensation.

The passions and affections are explained by the several associations of ideas of pleasure and pain with sensations or ideas.

Memory is simply the action of the associative power concerning past sensations and ideas.

Brutes are inferior to men, for *five* reasons:—

1. Their brains are relatively smaller.

2. The matter of the brain is less refined and less fitted to receive miniatures and construe them.

3. They have no words.
4. Their constructive powers are different from those of men.
5. The impressions which they receive from external objects are also different.

The affections towards God, and the phenomena of the so-called moral sense, are the products of manifold associations, arising from the nature of man and the circumstances of his existence and development. Indeed, in respect to these and all the other phenomena of human nature, the comprehensive doctrine of the author may be summed up in his own words: "Some associations are formed so early, repeated so often, riveted so strong, and have so close a connection with the common nature of man, and the events of life which happen to all, as, in a popular way of speaking, to claim the appellation of original and natural dispositions; and to appear like instincts when compared with dispositions evidently factitious; also like axioms and intuitive propositions eternally true, according to the usual phrase, when compared with moral reasonings of a compound kind. But I have endeavored to show in these papers that all reasoning, as well as affection, is the mere result of association."

Hartley clearly distinguished the *synchronous* and *successive* cases or forms of association. He also noticed that the strength of associations is twofold, depending on the vividness of the feelings or ideas associated, and the frequency with which any association is repeated. He shows that as ideas become complex, so they become decomplex by association. Indeed, it would be difficult to find any distinction or principle of the more recent forms of the associational psychology which was not anticipated by Hartley. The more recent discoveries in physiology and in the comparative sciences of nature are more largely used by the later writers, as Bain and H. Spencer, but always in the interest of the principles common to themselves and Hartley.

The author concludes the theoretical part of his treatise by giving his doctrine of the mechanism of the human mind; in other words, his theory of the will, which is the same in principle, and almost in method, with that of Antony Collins, except that Hartley avails himself of his special doctrine of vibrations and associations to explain particular phenomena of voluntary action.

In the second part of his treatise Dr. Hartley discusses ethical and theological questions.

It is to be noticed that Dr. Hartley contends earnestly against being considered a materialist, and against the materialistic conclusions which were supposed to be necessarily derived from his theory of vibrations.

Joseph Priestley.

§ 24. Hartley's successor and disciple was Joseph Priestley, LL. D., 1733–1804, Theologian, Philosopher, Physicist and Publicist. In 1774 he published an Examination of Dr. Reid's Inquiry into the Human Mind on the Principles of Common Sense, Dr. Beattie's Essay on Truth, and Dr. Oswald's Appeal to Common Sense in behalf of Religion. In this work the doctrine of Intuitive or Original Beliefs is attacked and criticized. In 1775 he published Hartley's Theory of the Human Mind on the principle of the Association of Ideas, with Essays relating to the subjects which it discusses, in which he labors to show that Hartley was a materialist like himself. In 1777 he published Disquisitions relating to Matter and Spirit (2d edition, 1782); also the Doctrine of Philosophical Necessity, being an appendix to the Disquisitions.

Dr. Priestley followed Hartley in accepting the doctrines of Vibrations, the Association of Ideas and Philosophical Necessity. He differed from him in holding that the soul is material. He does not, however, accept the commonly received definition of matter, but resolves its solidity or impenetrability into its attraction and repulsion. "In consequence of taking away attraction, solidity vanishes." Matter, with its powers, is not self-existent, but depends on a superior being for its essential powers. The mental and spiritual powers depend on and are probably functions of the brain, for the reason that thought depends on the senses and is vigorous or feeble as the brain is strong or weak. Ideas, moreover, are extended, and many of our affections are capable of melioration and depravation. Priestley attempts to reconcile these views of the Soul with the Christian doctrine of its future existence, by resorting to the doctrine of the resurrection of the body, as promised in the Christian Scriptures.

The influence of these doctrines was wide-spread, partly in consequence of Priestley's well-deserved reputation in Physics and Chemistry, and partly for his decided sympathy with liberal political opinions.

The following are some of the works elicited by Dr. Priestley's philosophical doctrines:—

Joseph Priestley. Disquisitions relating to Matter and Spirit; to which is added the History of the Philosophical Doctrine concerning the Origin of the Soul and the Nature of Matter; with its influence on Christianity. Lond., 1777.

Joseph Priestley. A Free Discussion of the Doctrines of Materialism and Philosophical Necessity; in a correspondence between Dr. Price and Dr. Priestley. Lond., 1778.

Joseph Benson. Remarks on Dr. J. Priestley's System of Materialism and Necessity. Hull, 177—?

Caulfield. An Essay on the Immateriality and Immortality of the Soul, etc. With an Appendix in Answer to Dr. Priestley's Disquisitions on Matter and Spirit. Lond., 1778.

John Whitehead. Answer to Priestley's Disquisitions, 1778.

Reflections on Materialism, addressed to Dr. Priestley, by Philalethes Rusticanus. 1779.

Matthew Dawes. Philosophical Considerations, or a Free Enquiry into the Merits of the Controversy between Dr. Priestley and Dr. Price, on Matter, etc. Lond., 1780.

Miscellaneous Observations on some Points of the Controversy between the Materialists and their Opponents. Lond., 1780.

A Slight Sketch of the Controversy between Dr. Priestley and his Opponents, on the Subject of his Disquisitions on Matter and Spirit. Lond., 1780.

Richard Gifford. Outlines of an Answer to Dr. Priestley's Disquisitions relating to Matter and Spirit. Lond., 1781.

Observations on Priestley's Doctrine. 1787.

Thomas Cooper. Sketch of the Controversy on Materialism. 1789.

R. C. Sims. An Essay on the Nature and Constitution of Man, etc. Lond., 1793.

John Ferriar. An Argument against the Doctrines of Materialism (in the Memoirs of the Lit. and Phil. Soc. of Manchester, 1793).

James Purves. Observations on Dr. Priestley's Doctrines of Philosophical Necessity and Materialism. Philadelphia, 1797.

Erasmus Darwin.

§ 25. Closely allied to Hartley and Priestley was Erasmus Darwin, M.D., 1731–1802, of St. John's College, Cambridge, and Edinburgh University; physician at Northampton, Lichfield, and Derby; botanist, philosopher, and poet. He published Zoonomia, or the Laws of Organic Life, Lond., 1794–96, 2 vols. 4to; 3d ed., 1801, 4 vols. 8vo; 1st Am. ed. 1802; 4th, 1818. The positions laid down in this work are as follows:—Nature is made up of two substances, spirit and matter; the first produces motion, the second receives and communicates it. Of the motions of matter there are three; those of gravitation, chemistry, and life. The last includes the motions of the animal and vegetable world, and those of the organs of sense, *which are ideas.* An

idea is "a contraction or motion or configuration of the fibres, which constitute the immediate organ of sense." "Perception includes the action of the organ of sense in consequence of the impact of external objects and our attention to that action; that is, it expresses both the motion of the organ of sense, or idea, and the pain or pleasure that succeeds or accompanies it." Association is variously applied. When fibrous contractions succeed other fibrous contractions the connection is termed *association;* when fibrous contractions succeed sensorial motions the connection is termed *causation;* when fibrous and sensorial motions reciprocally introduce each other in progressive traces it is termed *catenation.*"

Ideas are received by us in tribes or companies—never alone. In like manner they are excited in larger or smaller companies: those that are more complex than as given in nature are *compounded ideas;* those that are less complex are *abstract ideas.* Ideas highly abstracted are simple. All ideas are derived from perception; consequently, there are no ideas of reflection. Ideas of memory and imagination differ in this, that ideas recalled in the order in which they were received constitute memory; ideas received in any other order constitute imagination.

Perceptions are those ideas which are preceded by irritation and succeeded by pleasure or pain. "Reasoning is that operation of the sensorium by which we excite two or many tribes of ideas, and these re-excite the ideas in which they differ or correspond. If we determine the difference it is called judgment." "If we re-excite the ideas in which they differ it is called distinguishing. If we re-excite those in which they correspond it is called comparing." "We are conscious when we excite abstracted ideas of our principal pleasures and pains, etc., or of the figure, solidity, etc., of our bodies, and call that act of the sensorium a consciousness of our existence." "Our identity is known by our acquired habits or catenated trains of ideas and muscular motions."

The spirit or principle of animation has four different modes of action: *irritation*, *sensation*, *volition*, and *association*.

Abraham Tucker and William Paley.

§ 27. We may not omit to notice, in connection with the school of Hartley, the name and the writings of Abraham Tucker, 1705–1774, of Merton College, Oxford. He is best known by the "Light of Nature Pursued," by Edward Search (a pseudonym), of which parts 1–5 were published 1768, and parts 6–9 were published after his death, 1778. The entire work has often been republished in England and America. The author published excerpts of the same, under the title of "Free-will, Foreknowledge and Fate, a Fragment," 1763; also, "Man in Quest of Himself; or, a Defence of the Individuality of the Human Mind, or Self," etc., etc., by Cuthbert Comment, Gent., 1763. The whole work was abridged by the author of "An Essay on the Principles of Human Action" (William Hazlitt), 1807.

Tucker is connected with Hartley and the Associationalists by the prominence which he gives to the phenomena of association. But he does not follow them in the wide application which they make of this single law. In fact, he agrees more nearly with the school of Reid than with that of Hartley. His diffuseness of style and superabundance of practical illustrations, and his want of exactness in statement and of method and closeness in reasoning, have made him a popular writer with the masses, but less influential with philosophers than his merits would justify. Paley says of him: "I have found in this writer more original thinking and observations upon the

several subjects that he has taken in hand than in any other, not to say than in all others put together." This remark, when coupled with the almost undisputed sway which was held by Paley's Moral Philosophy in England for nearly 50 years, may justify us in taking Tucker as one of the best representatives of the style of thinking on subjects of this kind among Englishmen, and especially of the English universities and the English Church during the last quarter of the last and the first quarter of the present century. Although Paley was not in form an adherent of the associational school, he sympathized with it in the tendency to explain the moral sentiments by circumstances. He was not eminent for philosophical analysis, and his tastes were the opposite of metaphysical. But his Moral and Political Philosophy was so long an accepted text-book in the Universities and higher schools of learning, and was so long acknowledged as the ultimate authority in ethical and political science, as to deserve careful attention by the historian.

William Paley, 1743–1805; grad. 1763 at Christ's, Camb.; Fellow, 1766; Preb. Carlisle, 1780; Archd., 1782; Rector of Bishop Wearmouth, 1795 till death; published Principles of Moral and Political Philosophy, 1785; with Dissert. and Notes by Alex. Bain, 1853; Annot. by Richd. Whately, 1859. He defines moral philosophy as "the science which teaches men their duty and the reasons of it." Such a science required to supplement the ordinary standards, viz., the Law of Honor, the Law of the Land, and the Scriptures. There is no moral sense because there are no moral judgments which are *uniform*, and if there were, such uniformity could be accounted for without the theory of a moral sense. Moreover, all moral rules bend to circumstances. A Moral Instinct would bring ideas with itself, but instincts alone have no authority. Happiness is the excess of pleasure over pain. Pleasures differ only in continuance and intensity, not in kind; one is not higher in quality than another. "Virtue is the doing good to mankind in obedience to the will of God and for the sake of everlasting happiness." "Obligation is a violent motive, resulting from the command of another." In answer to the question, "Why am I obliged to keep my word?" he answers, private happiness is the motive, the will of God is the rule. In discussing *utility* he distinguishes between the particular and general consequences of action, and enforces the necessity of *General Rules.* The *utile* stands for the immediate consequences, the *honestum* for the remote.

Paley does not provide for the will and voluntary action, nor for any disinterested emotion, though he recognizes pity as an instinct indicating the divine intention and our duty. But Paley is anything but rigid and systematic.

Although Paley's treatise was for half a century the text-book on morals, it did not escape frequent criticism and earnest protests. Conf. Dugald Stewart in Elements, etc., Vol. II.; and in his Philosophy of the Active and Moral Powers. Gisborne, Principles of Moral Philosophy, 1789. Edward Pearson, Remarks on the Theory of Morals, 1800. Mackintosh, Prelim. Dissertation, 1832. Dymond's Essays on Morality, 1829. Robert Hall, Sermon on Modern Infidelity. Adam Sedgwick, Discourse on the Studies of the University of Cambridge, 1834. Francis Wayland, Elements of Moral Philosophy, 1836. T. Dwight, Sermon 99, and many others. On the other hand, Paley has been defended by Rev. Latham Wainwright, in "A Vindication of Dr. Paley's Theory of Morals," etc., etc., 1830; and by most of the Utilitarians of the later school of Jeremy Bentham, with many divergencies from special doctrines.

CHAPTER V.—The Scottish School.

Francis Hutcheson; Adam Smith, and Thomas Reid. James Oswald. James Beattie.

§ 27.—The Scottish School of Metaphysics began, in the judgment of Sir William Hamilton,* with Gerschom Carmichael, Professor of Moral Philosophy in Glasgow, immediately before Hutcheson. He published about 1720 an edition of Puffendorf, de Officio Hominis et Civis, with comments. The first well-known writer of this school is Francis Hutcheson, 1694–1747, born in the north of Ireland and educated at the University of Glasgow, a licentiate of divinity, and many years a popular teacher in Dublin. In 1729 he was elected Professor of Moral Philosophy in the University of Glasgow. His works are: An Inquiry into the original of our ideas of Beauty, Lond., 1725. An Essay on the Passions and Affections, Lond., 1728. Metaphysicæ Synopsis, etc., etc., 1742. System of Moral Philosophy, with Life, etc., Glasgow, 1755. Letters on Virtue, 1772.

Hutcheson is best known by his assertion of the doctrine that moral distinctions are apprehended directly by means or as the consequence of a special capacity of the soul, designated as the moral sense. "Moral goodness denotes an idea of some quality apprehended in actions which procures approbation and love toward the actor from those who receive no advantage by the action." "Moral evil, our idea of a contrary quality, which excites aversion and dislike towards the actor, even from persons unconcerned in its natural tendency."

As the bodily senses give us their appropriate "sensitive perceptions," and furnish the mind with the simple ideas proper to each, so there is a capacity for that idea called Beauty, and another for the idea called Harmony. These are properly called internal senses, and also reflex and secondary senses, because they presuppose objects furnished by the external senses. These superior powers of perception are also called senses, because the pleasure does not arise from any knowledge of principles, proportions, causes, or the usefulness of the object, but is directly imparted. In addition to the Sense of Society, we have a moral sense to direct our actions and to give us nobler pleasures. This moral sense does not suppose any innate ideas, knowledge, or practical proposition, but is only a "determination of our minds to receive amiable or disagreeable ideas of actions, antecedent to any opinion of advantage or loss to redound to ourselves from them." The universal quality or characteristic of the actions which are agreeable to the moral sense is benevolent intention, i. e. all the actions which are approved by the moral sense as virtuous are disinterestedly benevolent actions.

The metaphysical doctrines which connect Hutcheson with the so-called Scottish school, and which justify his being considered the precursor of Reid, are the circumstance that he anticipated Reid in his dissent from Locke, and used the term *suggestion* in the same import in which Reid employs it in his Inquiry, etc. Vide Met. Syn. P. I. c. 1, *quæ omnia perspecta suggerunt, rationis aut habitudinis quæ inter res intercedit, notionem.* His dissent from Locke's account of the origin of our ideas is as decided as is that of Reid. Essay on the Origin, etc., etc., II. c. 12. "Every sensation is *accompanied* with the idea of duration, and yet duration is not a sensible idea, since it also accompanies ideas of internal consciousness or reflection." "Extension, figure, motion or rest seem therefore to be more properly called ideas *accompanying* the sensations of sight and touch, than the sensations of either of these senses." Vide also Essay on the Passions, Sec. I., note. Mor. Phil., B. I. c. i. § 3. "These latter for distinction we may call *concomitant* ideas of sensation," etc. "But none therefore imagines that it is reason, and not sense, which discovers these *concomitant ideas*, or *primary qualities*." Illus. of Moral Sense, Sec. 4. The merit and relative originality of Hutcheson are acknowledged by Dr. Price. Review, ch. p. 56, ed. 1. Phil. Essays I. ch. III. Cf. also Sir W. Hamilton, Works of Reid, p. 124, n. Royer Collard, Œuvres de Reid, Tom. iii. p. 430.

Hutcheson also shows his independence of Locke in his doctrines of axioms. Met. P. I. c. iii. of Consciousness; Met. P. II. c. i., as well as in his doctrine of the secondary or reflex senses of Beauty and Moral qualities. He contends that in a proper sense of the term, though not in that rejected by Locke, certain ideas are innate, and holds that we accept them not on grounds of experience, but by an independent power, which is *menti congenita intelligendi vis*

* Hamilton's Life of T. Reid, p. 30.

§ 28. Adam Smith, 1723–1790, was born at Kirkaldy, Scotland; studied at the University of Glasgow, 1737–40, and at Balliol College, Oxford, 1740–1747. Lecturer at Edinburgh, 1748–57. Professor of Logic in the University of Glasgow, 1751–2, and Professor of Moral Philosophy, 1752–1763. Travelled on the continent, 1764–1766. Composed his "Wealth of Nations" at Kirkaldy, 1766–78. Resided at London, 1776–78. Commissioner of Customs at Edinburgh, 1776–1790. In 1787, Rector of the University of Glasgow.

Adam Smith is best known by his "Wealth of Nations," Lond., 1776. Additions and corrections to first and second editions, 1784. Third edition, with additions and corrections, 1784, and many subsequent editions in England and America. The Theory of Moral Sentiments, 1792, was his most important contribution to Ethical Philosophy, and is characterized by consummate ingenuity in its analyses of ethical phenomena, and by the affluence of its interesting illustrations, and the elegance of its somewhat elaborate diction. The theory of Smith is an offshoot of the theory of Hume.

David Hume, in his Enquiry concerning the Principles of Morals, had agreed with Hutcheson—in this differing from Hobbes, with whom he affiliates in so many particulars—in holding that man is capable of a disinterested regard for others. He had also discriminated in ethical experiences between the functions of *reason* and *sentiment*—in this making an important advance upon Hutcheson, who did not assign to reason a distinct and special office. He emphasized with great earnestness the doctrine that utility is the fundamental characteristic of virtuous actions. Hume had also insisted, almost in the spirit of paradox, that virtue and vice, merit and demerit, are as properly affirmed of the operations of the understanding, and even of any pleasing or displeasing corporeal or personal qualities, as of the sentiments or acts in which there is a voluntary element. That which leads us to approve or disapprove

moral excellences and defects he calls Benevolence in the *Enquiry*, and Sympathy in the *Treatise* of *Human Nature*.

The doctrine of sympathy, which Hume had suggested, was accepted by Smith, then established a fundamental and all-comprehensive principle, and expanded into an elaborate theory. The Theory of Moral Sentiments is devoted especially to the analyses of those ethical experiences which are subjective, rather than to the definition of the objective conceptions which are the material of moral science. The sense of Propriety, of Merit and Demerit, and the sense of Approbation and Disapprobation, are the prominent topics of discussion in the first three parts of the Essay. All these are resolved into an original capacity in man to sympathize with the real or supposed sentiments of his fellow-men. To sympathize with the feelings of another, in the view of Adam Smith, is to approve them. All those actions with which we entirely sympathize we judge to be morally proper. As we must alternately lower or elevate our feelings to the tone of those which we suppose to be entertained by our fellow-men, we have the feeling of the morally beautiful and the morally sublime. This sympathy is sometimes divided between two classes of actions which conflict. In the benevolent affections there is a double motive, in our sympathy with those who feel these affections and with those who are the objectives of these affections.

Merit and demerit arise from our sympathy with the supposed gratitude of those who are benefited, and the resentment of those who are injured. The sentiment is compound, being made up of a direct sympathy with the sentiments of the agent, and an indirect sympathy with the gratitude of the recipient. Our sentiments of moral approbation and disapprobation depend on our sympathy with the supposed approbation of our fellow-men in general. "We suppose ourselves the spectators of our own behavior, and endeavor to imagine what effect it would in this light produce in us." Man could no more originate nor apply the conception of the law of duty, except in society, than he could judge of his own face without the aid of a mirror. The rules of morality are all derived from, and constituted by, these supposed opinions of society. They coincide with what Locke calls the philosophical law of right and wrong, or the law of opinion or reputation. Essay, B. II., c. xxviii., § 10.

Other elements which are secondary come in subsequently to modify and enforce the sentiments which originate in sympathy. "When we approve of any character or action, our sentiments are derived from four sources: *first*, we sympathize with the motives of the agent; *secondly*, we enter into the gratitude of those who have been benefited by his actions; *thirdly*, we observe that his conduct has been agreeable to the general rules by which these two sympathies generally act; and, last of all, when we consider such actions as forming parts of a system of behavior which tends to promote the happiness of the individual or of society, they appear to derive a beauty from this utility not unlike that which we ascribe to any well-contrived machine."

It hardly need be added that Smith agrees with Hume in attaching great importance to custom, *i. e.*, in impliedly recognizing the operation of association as supreme. His theory in its fundamental assumptions in a certain sense brings him back to this as the principle which is formative of the entire structure of our moral judgments and emotions.

§ 29. Thomas Reid, D.D., 1710–1796, was a native of Strachan, Scotland; Student and subsequently Librarian of Marischal College, Aberdeen, in 1737; Pastor of New Machar, 1752; Professor of King's College, Aberdeen, in 1763; Professor of Moral Philosophy in the University of Glasgow, as successor of Adam Smith, from which he retired in 1787.

Dr. Reid was effectually aroused to philosophical activity, as Kant was somewhat later, by the speculations of Berkeley and Hume. Both had assumed and carried to their logical conclusions the scholastic doctrine of Representative Perception, or perception by means of intermediate ideas, so far as it was sanctioned by Locke, and Locke's definition of Knowledge, as the agreement of two ideas with one another, or an idea with its object.

Berkeley had shown that these assumptions involved the reduction of matter to ideas, and the universe of matter to a universe of ideas, permanently existing in the divine mind, and occasionally discerned by the finite mind. Hume had as logically concluded that the mind itself is no more than a bundle of ideas, and its phenomena are but a series of impressions.

Besides reducing matter to sensations and mind or spirit to ideas, Hume had resolved the connections between both into custom or subjective habits of experience. Custom he had explained by association. He had also formally called in question the *universality* of the relation of causation by making it dependent solely on experience, and had denied impliedly its *necessity à priori*. He had challenged the customary methods of reasoning to the existence and attributes of God from the evidences of design in the universe. He had also formally called in question the trustworthiness of all philosophical speculations whatever, by arguments in support of philosophical skepticism as the only possible position which reason could accept. Singularly enough, he had used positive arguments against the trustworthiness of the Christian miracles and the credibility of the Christian history, which were founded on the very doctrine of causation which he had resolved into customary associations, and on the experience which his philosophical skepticism would compel him to distrust.

Reid was first aroused by these apparently legitimate conclusions from the received philosophy to reconsider the fundamental principles from which they were derived.

Against the special principles and inferences of Berkeley and Hume, and against the pronounced skepticism of Hume, he protested in the name of *Common Sense*. Many of the arguments of both he subjected to a critical revision. His conception of common-sense

was indefinite and inconsistently conceived, and his criticisms were applied with unequal acuteness and varied success. Common-sense was at one time conceived and appealed to as the power of knowledge in general, as it is possessed and employed by a man of ordinary development and opportunities. At another it was treated as the Faculty of Reason—or the Source of Principles, the *Light of Nature*, etc., etc. Perception was at one time defined as the power to know the external world and its relations, on occasion of some of the bodily senses; at another it was resolved into the capacity to suggest (following in this the language of Berkeley and Hutcheson) an existing world of matter as the cause of some or all of these sensations. Reid's analysis of the processes of sensation is, however, sometimes very acute, and his Enquiry into the Human Mind is a valuable contribution to this much vexed subject. He successfully exposed the groundlessness, inconsistency and contradictions of the ancient and modern theories of representative perception. He contended that the mind is active in sense-perception—that every act of sense-perception is an act of judgment. In his later writings, he attempted a more accurate statement of the nature of common sense, and its functions in philosophical speculation, as Buffier in his *Premières Verités* had done before him, and not a few other philosophers *—making common sense a capacity for certain original and intuitive judgments which may be used as the foundations of deductive reasoning. These first principles he divided into the two classes of contingent and necessary truths. He cited twelve examples of the first, and divided the latter into grammatical, logical, mathematical, æsthetical, ethical, and metaphysical. Of the last he made three—the principle of inherence, of causation, and design. He also asserted that the freedom of the will and the consequent responsibility of the individual soul are discerned by intuition.

In 1748 he published an Essay on Quantity, in which he combated the application by Hutcheson of mathematic to morals. In 1763, Lond. 8vo, he published an Inquiry into the Human Mind on the principles of Common Sense. In 1773, an Analysis of Aristotle's Logic, as an Appendix to Lord Kames' Sketches of Man; also, an Examination of Priestley's Opinions concerning Matter and Mind, and other papers. In 1785, Edin., 4to, Essays on the Intellectual Powers of Man, and in 1788, 4to, Essays on the Active Powers of Man. The two together in Dublin, 1790, 3 vols. 8vo. The Inquiry has been published, Lond., 1763, 8vo; 1769, 8vo; 1785, 4th ed. 8vo; 1801 ed. 1804, Glasgow, 1817, 8vo; 1818, ed. 8vo; 1819, ed. 8vo; 1821, 8vo; 1853, Lond. 8vo.

The Essays on the Intellectual Powers were published separately, 1827, Lond., 8vo; 1843, 8vo. (Abridged by Prof. J. Walker, Cambridge, Mass., 1850.) 1853, ed. 8vo; 1865, Lond., cr., 8vo. Essays on the Active Powers, separately, with Essay on Quantity, etc., Lond., 1843, 8vo. Essays on Intellectual and Active Powers,

* This treatise was translated into English and published in 1781, under the title, "First Truths and the origin of our opinions explained; with an Enquiry into the sentiments of Moral Philosophers relative to our primary notions of things. To which is prefixed, a detection of the plagiarism, concealment and ingratitude of Doctors Reid, Beattie and Oswald."

How unjust these insinuations of the translator are, may be learned from Hamilton's Works of Reid, pp. 778–9.

etc. 1803, ed. 8vo; 3 vols., 1808, do. 1812, do. 1813 do. 1819 do. 1820 do. 1822 do. 1843, Lond. 2 vols. Œuvres Complètes de Thomas Reid, par M. Th. Jouffroy, avec des Fragments de M. Royer Collard, Paris, 1828-9. 6 tomes.

The works of Thomas Reid, D.D., now fully collected, with selections from his unpublished letters. Preface, Notes and Supplementary Dissertations, by Sir William Hamilton, Bart., etc., etc., ending abruptly at p. 914. 1847, 5th ed. 1858. The supplementary part was published in 1863, and with the earlier portion was published as 6th edition in 2 vols.

§ 30. The first published work of Reid's was the brief Essay on Quantity, 1748, in the Transactions of the Royal Society of London. It was designed as a Protest against the application of mathematical relations to ethical conceptions, such as had been made by Hutcheson in his Ethical Treatises, as the ground of determining the excellence and merit of a virtuous action. It consists of a brief statement of the kind of objects to which mathematical relations are applicable. Mathematics is defined as the science of measure. It is applicable to Quantity, or that which is measurable. Quantity is subdivided into the proper and the improper. Proper Quantity is that which is measured by its own kind. Improper is that which cannot be measured by its kind. Proper Quantity is of four species: Extension, Duration, Number and Proportion. Improper Quantity includes Velocity, Quantity of Motion, Density, Elasticity, vis insita et impressa, centripetal forces of all kinds, and the different orders of fluxions. Every kind of improper Quantity which is admitted into mathemathics must first admit of degrees of greater and less, and second, must be associated with or related to something which has proper quantity, so that the one must be increased and diminished with the other. It follows that intellectual and moral activities, not being capable of being thus associated, or of being associated with that which is measurable, do not admit the relations of quantity.

§ 31. The *Inquiry into the Human Mind on the principles of Common Sense* was published in 1763. It was designed, as appears from the dedication, to set aside the hypothesis that nothing is perceived but what is in the mind which perceives it, with the inference that we do not perceive things that are external, but only certain images of them imprinted upon the mind, which are called impressions and ideas. The introduction treats (1) of the importance of the subject and the means of prosecuting it; (2) of the impediments to our knowledge of the mind; (3) of the present state of this part of philosophy, etc., etc., in which R. ascribes the skepticism of the times to the *ideal* system of Descartes. He proceeds to the analysis of the special sensations, beginning with smell, which he finds to be a pure subjective sensation, not involving the relations of figure or extension, and only known as proceeding from some cause other than the subject of it. In this connection he explains the difference between a sensation, and the remembrance and imagination of an object; the one being a knowledge of the present existence of a real object; the second, of its past excitence; and the third, a simple apprehension of it without belief. He next interposes the position that judgment or belief may occur without a preceding simple apprehension, in this dissenting from Locke's definition of knowledge as an agreement between ideas. He next attacks the doctrine of Hume that there can be a sensation without a sentient. He adds that the conception or belief of a sentient being is *suggested* by our constitution as one of the axioms of commons-ense,—a doctrine which had been in a sense already taught by Berkeley and Hutcheson, though not in the same application which Reid makes of it when he says, that it is a power "to which we owe many of our simple notions," "as well as many original principles of belief." He next discusses the point whether the mind is active or only passive in sensation, and insists that it is active, as against the learned philosophers. In discussing Touch, he returns again to his doctrine

of *suggestion*, under the head *natural signs*, and distinguishes the quality as of hardness in the body from the corresponding sensation by making the one to be interpreted or suggested by the other as its natural sign. In the same way extension is suggested by most of the tactual sensations; and the reality of the external world is made known to the mind as a first principle of common-sense. In discussing vision, he contends that color is not the name of a sensation, but of a secondary quality, and proceeds to argue, as against Locke, that none of our sensations are resemblances of the qualities of bodies. Following Berkeley, Reid distinguishes visible figure and extension from tangible figure and extension, and presents an ingenious discussion of what he calls the geometry of visibles, *i.e.* a system of geometry such as might be constructed by the eye only if it were unaided by touch. After a careful statement of the physiological conditions of vision as known in his time, he proceeds to distinguish sensation from perception, describing the one as a state of feeling and the other as an act of knowing, and distinguishing perception as original and acquired, the first being determined by the constitution or capacity of man, and the second being an act of judgment by signs. He proceeds next to trace the analogy between our confidence in the operations of the two kinds of perception and our confidence in human testimony, there being an original tendency or necessity to an enlargement and improvement by experience. It is worthy of notice that he introduces here another principle of common-sense as necessary to the acquired perceptions of natural powers, viz.: a confidence in the honesty of nature analogous to a similar confidence in the testimony of men, called by Reid "*the inductive principle.*"

In 1774 Dr. Reid published, in the appendix to Lord Kames' Sketches of Man, a brief account of Aristotle's Logic. It was designed to abate what the author conceived to be an excessive estimate of the logical process as a source of knowledge, and to emphasize the importance of other sources of knowledge. It contains many superficial and incorrect representations of Aristotle's real opinions, although it rendered an important service at the time when it was originally composed. It has been subjected to philosophical and critical annotations by the eminent Aristotelian Sir William Hamilton, in his edition of Reid's works.

Cf. George Campbell, Philosophy of Rhetoric, B. I., Ch. 6.

§ 32. *The Essays on the Intellectual Powers of Man*, published in 1785, contain the substance of the lectures which Reid had delivered for more than twenty years. We find in them substantially the same principles which were more briefly stated in the *Inquiry*. The Preliminary Chapter in Essay I. contains a series of definitions or explanations of terms which give a transcript of the philosophical views which were held in his time. Chapter II. gives the principles taken for granted. These are the existence of a subject of psychical operations—the existence of any present psychical state of which we are conscious—the agency of attention—the identity of the subject of our mental states—the reality of inherence or the relation of substance and attribute—the distinction of subject and object in mental operations—the truth of those principles in which there is common agreement of competent judges in all generations—the trustworthiness of the faculties of sane men. Chapter VII. treats of the division of the Powers of the Mind. Reid follows the prevalent twofold division into powers of the understanding, and powers of the will. He criticises and sets aside the division in books of logic of the intellectual powers into simple apprehension, judgment and reasoning, and proposes, as an incomplete division, the Powers we have by the External Senses—Memory—Conception—Abstraction—Judgment—Reasoning—Taste—Moral Perception and Consciousness. To these he subjoins the Social operations of the mind. In treating of the External

Senses, he sharply distinguishes the impressions on the brain and nerves from the perceptions of which they are the condition—more sharply than from the sensations; he analyzes the act of perception into the attaining or having a notion of the object, and an irresistible belief of its present existence, which is also independent of reasoning, *i.e.*, is immediate. After an extended statement and criticism of the theories of representative perception he treats of sensation in chapter XVI., asserting that sensations and perceptions are known by the same names, and yet are distinguishable in thought. The sensations are confined to the soul, are painful, pleasant, or indifferent, and are distinguishable from the desires. In this analysis, however, sensations are confounded by Reid with emotions. The primary and secondary qualities are distinguished thus: of the first we have a direct notion, of the second a relative and obscure notion. Neither the primary nor the secondary resemble any sensation, as Locke asserted of the primary qualities. Passing next to matter, he teaches that the existence of a material substance, in addition to the sensible qualities, is directly discerned by the mind, though its relation to its qualities can only be obscurely apprehended. The infinite divisibility of matter must also be received as an axiom, and there are other axioms concerning its relations to space which cannot be perceived by the senses. *Space* and its relations, with the axioms concerning its existence and its relations, are known directly in connection with the senses of touch and sight, but not as objects of these senses. Returning to the evidence of sense, and the belief which rests upon it, he distinguishes it from the evidence of reasoning and from the evidence of what are technically called axioms, though it is analogous to the latter.

The senses can be improved in respect to the acuteness of the sensations and the range and variety of the perceptions. The sensations as such are not fallacious, but only the acquired perceptions and other conclusions arising from rashness, or ignorance of the laws of nature.

Memory Reid treats as an original faculty, which involves a belief of past duration and an immediate knowledge of the actual existence of objects in the past. The knowledge of limited duration involves the belief of a duration which is unlimited, just as limited extension involves unlimited space. Both time and space are objects *sui generis*. They are not things, but rather the *receptacles* of things, without which these could not possibly have existed. Memory involves a belief of past identity as well as of past duration, and identity is known directly. Identity has different senses as applied to different objects. The discussion of *time*, *space*, etc., introduces an extended criticism of Locke's account of the origin of these notions by means of sensation and reflection, in which Reid implies that he considers these two sources of knowledge, as they are defined by Mr. Locke, to be inadequate.

Conception, Reid calls also *simple apprehension*, in this confounding the representation of individual and general ideas or notions, and this confusion runs through the entire discussion of the subject. Our conceptions are of three kinds: of individual things, of the meaning of general words and the creations of our own imagination. The term imagination, when distinguished from conception, he limits to mental pictures of visible objects. The relation of conceptions to their originals leads Reid to discuss again the falseness of the theory of representative ideas. A chapter on mistakes concerning conception strikingly illustrates the confused and equivocal senses in which the author uses the term. The power and laws of association he adverts to under the title of the train of thoughts in the mind, but professes to add nothing to what Hume and Lord Kames had written, to whom he refers for a full exposition of the subject.

In Essay V., Of Abstraction, Reid treats first of General Words, in which he notices and explains their *extension* and *comprehension* and the relation of the one to the other. He next discusses general conceptions, and shows that such are possible of the attributes of things and the genera and species of things. In treating Chapter III., of Abstraction and Generalization, he observes that the general conceptions which are formed by compounding objects do not become simple by blending their constituents into one. In other words, the compounds of nature and those formed by the mind are strikingly contrasted. In the formation and application of these universals we impliedly assume the orderly procedure and arrangements of nature. Of the nature of universals, as discussed by Nominalists, Conceptualists, and Realists, Reid expresses the following opinion:—Universals have no real existence except in the mind. They are not objects of the imagination proper. Locke, who represents the Conceptualists, and Berkeley and Hume, who represent the Nominalists, divide the truth between themselves.

Of Judgment, in Essay VI., Reid's doctrine is summed in the three propositions: 1. It is an act specifically distinct from simple apprehension. 2. There are notions which should be referred to the faculty of judgment as their source, as those of affirmation, negation, truth, falsehood, knowledge and belief, indeed of relations of every kind. 3. In mature persons, judgment accompanies sensation, consciousness and memory; as also in the formation of abstract and general conceptions. Judgment, so far from supposing simple apprehension or ideas as the material with which it operates, is necessary to provide ideas and simple apprehensions. This is true of the natural judgments of sensation, consciousness, as well as of the relations which are involved in the act of judgment itself. That *Common* sense is a particular description of judgment, is obvious from the use of the term by many writers. It follows from this corrected conception of the nature of judgment, that all knowledge is not limited to the agreement or disagreement of ideas. Immediate knowledge cannot be thus defined. Some judgments are, in the proper sense of the word, intuitions. Such are termed *axioms, first principles, principles of common sense, self-evident truths.* All knowledge obtained by reasoning must be built upon first principles. Some of these are certain, others are probable only. It is important and practicable to determine these principles—for, first, every man is a competent judge of them; second, opinions which contradict first principles are not merely false, they are also absurd. The consent of men of all ages and conditions is of great authority in establishing them. Opinions that appear very early and are absolutely necessary in the conduct of life are to be received as first principles. These first principles are of two classes: the first principles of contingent truths, and the first principles of necessary truths. Reid enumerates *twelve* of the first class, viz.: Everything exists of which we are conscious. The thoughts of which I am conscious are the thoughts of a being called myself, etc. The things which I remember did really happen. We may be certain of our identity as far as we remember. The things which we perceive exist, and are what we perceive them to be. We have some power over our actions and the determinations of our wills. The natural faculties by which we discriminate truth from error are not fallacious. There is life and intelligence in our fellow-men. Certain features and gestures indicate certain thoughts and dispositions of the mind. Human testimony naturally awakens confidence. In respect to events depending on human volition, there is a self-evident probability, greater or less. In the phenomena of nature, what is to be will probably be like to what has been in similar circumstances. Necessary truths are grammatical, logical, mathematical, maxims of taste, first principles of morals and metaphysical truths. Of the last, three are conspicuous. (1) The qualities which we perceive belong to a subject which we call body; those of which we are conscious belong to a subject which we call mind. (2) Whatever begins to exist must have a cause which produced it. (3) Design and intelligence in the cause may be inferred with certainty from the marks or signs of it in the effect. Next follows a brief statement of criticism of the received doctrines in respect to first principles; also a chapter on prejudices and the causes of error.

Essay IV. is of Reasoning, which is allied to judgment and is divided into probable and demonstrative, the first being limited to truths which are probable, and the second, to those which are necessary. So far as in morality there are truths which are necessary or intuitive, so far is morality capable of demonstration. The skeptical distrust of Reason can only apply to Reasoning, but the belief in first principles is not an act of the reasoning power. Hume is in error in asserting that our reasonings of causes and effects are derived from custom, and are acts of the sensitive rather than the cogitative part of our nature.

Of Taste, Essay VIII., Reid's doctrine is that, like one of the senses, it is founded on an internal capacity to be pleased or displeased, coupled with the power of judgment. The qualities in objects which affect this sensibility are grouped under novelty, grandeur and beauty. Each of these are illustrated at length.

§ 34. The Essays on the Active Powers of Man commence with an Essay on Active Power in general. The conception of power, like other original conceptions, cannot be defined, but we may assert that power is not an object of sense or consciousness, as Locke contends and Hume denies. We have only a relative notion of it. It requires a subject in which it inheres. Power may exist and not be exerted. The notion of power has no contrary. After criticizing Locke's and Hume's explanation of the notion and of our belief in it, Reid contends that power *probably* belongs only to beings possessed of understanding and will; all that the science of nature investigates is the laws of nature. The powers of man are limited.

The will is appropriate to the power and act of determining. It should be distinguished from the sensations, affections and desires. Every act of will must have an object. It must concern itself immediately with some act of a man's own, believed to be within our power. The will affects the acts of the understanding in Attention, Deliberation, and Resolution or Purpose. Some acts of will are transient and others permanent. Nothing is virtuous or immoral which is not voluntary. Virtue in habit consists in the purpose.

Principles of action are whatever excites to action. They are threefold: mechanical, animal and rational. The mechanical principles are twofold: instincts and habits. Besides the commonly accepted instincts there are instincts of belief, as in testimony, and the uniformity of the laws of nature. Habit is a facility acquired by repetition. The animal principles are the appetites which are corporeal in their occasion and are neither social nor selfish—the desires, of which there are three: the desire of esteem, of power and of knowledge, all which are social; the benevolent affections, general and special, the last comprising the domestic, the grateful, the pitiful, the respectful, the friendly and the sexual, and public spirit. Of the malevolent affections, there are two: emulation and resentment. All these become passions when excessively excited. Disposition describes a permanent subjective tendency to the excitement of certain of these principles.

The Rational Principles of action are such as imply judgment. There are two: a regard for our good upon the whole, and a regard to duty. The last of these is grounded on the possession of an original power of the mind, which we call the Moral

Faculty, by which we distinguish actions as right and wrong, and discern the First Principles of Morals, attendant upon which are the feelings of moral approbation and disapprobation. Conscience comes into maturity by gradual growth. It is peculiar to man; it is intended as a guide; it is both an active and an intellectual power.

The liberty of a moral agent is a power over the determinations of the will. It supposes some *practical judgment* or Reason. Necessity is the want of such moral liberty. Liberty is used in three senses: 1, of confinement of the body; 2, of obligation from law; 3, as opposed to necessity as defined. This is conceivable because every man knows that he possesses it. The words cause and effect, action and active power, are used in more than one meaning, and hence are used ambiguously when applied to material and spiritual agents.

Necessity is not proved by the influence of motives, unless it can be proved that the existence of motives compels to a particular determination. The arguments for the fact of Liberty are: (1) We are naturally convinced that we act freely. (2) The fact of moral responsibility implies it. (3) Liberty is essential to the deliberate choice and execution of plans *that are deliberately chosen*. Against Liberty it is urged, A, that liberty of determination is impossible, because, (1) there must be a sufficient reason for every existence and every event; and (2) because it would imply that an event may occur without a cause. B. It would be hurtful to man. C. Man has no such liberty, because every human action is foreseen. But the foreknowledge of God does not involve necessity. It should be granted that foreknowledge of contingent events is impossible for man, but it is not for this reason impossible for God. On the other hand, upon the scheme of necessity God is made the author of sin.

The first Principles of Morals relate, A, to virtue in general. B, to the different branches of virtue. C, to the comparison of virtues. The first are, some things in human conduct merit approbation and praise, others blame and punishment. That which is involuntary deserves neither. What is necessary cannot be the object of praise or blame. Men are culpable for omitting as well as for performing acts. We ought to use the best means to learn our duty. We ought to fortify ourselves against temptation. The second are, we ought to prefer a greater to a less good. We should follow the intuitions of nature. No man is born for himself only. We ought to act towards another as we should wish him to act towards us. Veneration and submission to God are obligatory on all. Of the third class are, unmerited generosity should be secondary to gratitude, and both to justice. Unmerited beneficence should yield to compassion to the miserable. External acts of piety to works of mercy. An act deserving moral approbation must be believed by the agent to be morally good. Justice and its obligations are naturally approved as morally good—and are not the results of artificial arrangements. These positions are against Hume. Moral approbation is an act of judgment as well as of feeling.

P. S. Associated with Reid's name and influence were James Oswald and James Beattie. The writings of both were popular rather than philosophical, but they attracted much attention as against the religious and philosophical skepticism of the times.

James Oswald, D.D., was born in Dunnet, Scotland, where he was established as a clergyman in 1727. Removed to Methven, in Perthshire, 1750. Died in 1793. He published An Appeal to Common Sense in behalf of Religion—2d ed. 1768, and also some theological works.

James Beattie, LL.D., 1735–1803. Marisch. Coll., Aberdeen, 1760, Professor of Moral Philosophy and Logic. 1770, published Essay on Truth, which was immensely

popular, going through four editions in five years. In 1790, Elements of Moral Science, Vol. I., and 1793, Vol. II. of the same.

The Essay on Truth was written with great spirit, not to say with some asperity of criticism. It is directed chiefly to the defence of a Moral Faculty. It fails in the highest accuracy of discrimination and statement. Both Beattie and Oswald were associated with Reid in Priestley's "Examination of Dr. Reid's Inquiry into the Human Mind on the Principles of Common Sense, Dr. Beattie's Essay on Truth, and Dr. Oswald's Appeal to Common Sense in behalf of Religion. Lond., 1774."

We should not omit to notice two English writers who expressed their decided dissent from the principles of Locke, viz.: Richard Price and James Harris. Richard Price, D.D., 1723–1791, was theologian, publicist, and metaphysician, and in each of these capacities was a man of distinguished ability and commanding influence. He published, in 1758, A Review of the Principal Questions and Difficulties in Morals, in which he reviews the intellectual or intuitional theory of moral obligation, and in so doing expressed his positive dissent from the fundamental position of Locke, as it was understood at that time, viz., that all our ideas are derived from sensation and reflection. In this he anticipates Reid and Kant. His correspondence with Dr. Priestley on Materialism and Philosophical Necessity was published in 1778, and is in every respect significant.

James Harris, 1709–1780. A nephew of Lord Shaftesbury, Wad. Coll., Oxford, Lord of the Admiralty and Lord of the Treasury, also Secretary of the Queen, published several treatises, and in 1750, Hermes; or, a Philosophical Inquiry concerning Language and Universal Grammar, in which the most decided dissent is expressed from the fundamental axioms of Locke. This treatise passed through several editions—1751, '71, '75, 1806. Harris' collected works were published in 1801, 2 vols. 4to; 1803, 5 vols. 8vo.

We should not wholly overlook James Burnet, Lord Monboddo, 1714–1799, King's College, Aberdeen, and Groningen, in Holland; published Ancient Metaphysics or the Science of Universals, with an examination of Sir Isaac Newton's Philosophy. Edin., 1779–99, 6 vols. 4to, which found only here and there a reader.

With Burnet may be connected also Thomas Taylor, "the Platonist," 1758–1835, who translated the works of Aristotle and Plato and other philosophers so painfully for himself and his readers.

CHAPTER VI.—The Scottish School, Continued.

Dugald Stewart, Thomas Brown, and Sir James Mackintosh.

§ 35. Dugald Stewart, son of Rev. Matthew Stewart, Professor of Mathematics, University of Edinburgh, born November 22, 1753; educated at University of Edinburgh, also at Glasgow, 1771–2; elected successor to his father, 1785, also Professor of Moral Philosophy as successor to Adam Ferguson;* in 1810 relinquished active duties; died June 11, 1828.

* Prof. Adam Ferguson, 1724–1816. Professor Moral Philosophy in Edinburgh, 1764; Author of An Essay on the History of Civil Society, Edinburgh, 1767—several editions. Institutes of Moral Philosophy, Edinburgh, 1769. History of the Roman Republic, 1783.

Dugald Stewart followed Reid very closely in his methods of analysis and his accumulation of the discriminated facts of experience, but went far beyond him in the exactness and reach of his philosophical principles and method. He illustrated his opinions from a very wide range of reading, which, if it was not in the eminent sense learned and profound, was careful and comprehensive, and never failed to set them forth in an elaborate and elegant diction. In his lectures he is said to have been eminently attractive and eloquent. These lectures attracted many pupils from the Continent and America, and excited an enthusiastic interest in philosophical investigations, and did much to awaken nobler ideals and a more spiritual and ethical faith in the young men of his time. The reaction which was awakened in France by the influence of Reid upon Royer-Collard was furthered by the influence of Stewart's writings upon Prevost and Jouffroy. Indeed, we may confidently assert that the so-called eclectic school of Cousin rests upon the elements and influences which were largely furnished by the Scottish philosophers. Says Lord Cockburn: "Dugald Stewart was one of the greatest of didactic orators. Had he lived in ancient times, his memory would have descended to us as that of one of the finest of the old eloquent sages. Flourishing in an age which required all the dignity of morals to counteract the tendencies of physical pursuits and political convulsions, he has exalted the character of his country and generation. No intelligent pupil of his ever ceased to respect philosophy or was ever false to his principles without feeling the crime aggravated by the recollection of the morality which Stewart taught him."

Prof. Veitch says of him: "Among Scottish philosophers Mr. Stewart stands pre-eminently out as a psychological observer. On questions properly metaphysical he has left little which can be regarded as essentially his own. The field within which he labored was that of the phenomena of the mind, intellectual, moral, and æsthetical, as these appear under the modifications imposed on them by the general circumstances of human life—education and society. In careful, delicate, and original observations within this sphere he has seldom been equalled."

Stewart's contributions to psychology are abundant and various, and they give the principal charm and value to his writings. The value and extent of his contributions of this description is less obvious, from the circumstance that his psychological writings appear more frequently in the form of comments on the opinions of others than as his own observations and conclusions.

He recognizes the influence of the laws of Association far more distinctly than Reid had done, and goes so far as to resolve our belief in the extension of colored *visibilia* into "an inseparable association." In this he prepares the way for the more extended application of the associational power to the solution of psychical phenomena which was adopted by his successor, Dr. Thomas Brown.

In metaphysics, while Stewart followed Reid in general, he substituted for the phrases, "the Principles of Common Sense," and "Metaphysical Axioms;" "the Fundamental Laws of Human Belief," and "the Principles of Human Knowledge." Among the primary qualities of material bodies he distinguishes (Phil. Essays) the "mathematical affections," and recognizes the truth that these imply the existence of space and time.

In respect to causation and the principle of causality it is to be observed, however, that in respect to the nature of this relation or notion, he agrees with Hume, though he dissents from the conclusions which Hume derives from this definition. In this he prepares the way for the more explicit adoption of the views of Hume by Dr. Brown, cf. pp. 409–411, below. (The views of Stewart may be found in Elements, vol. I., ch. 1, § 2, and Note c. Vol II., ch. 4, § 1, and Note o. Also App., p. 417, sqq. Vol. III. of Collected Works. Compare in contrast the views of Reid, Active Powers, Essay iv., chap. ix.)

As an historian of philosophy Stewart is elegant rather than erudite, although his Dissertation on the Progress of Metaphysical Philosophy contains many just observations and much curious knowledge. He barely recognized the existence of the School of Kant, the terminology of which offended his taste, if it did not somewhat perplex his understanding.

§ 36. In 1792 Stewart published Elements of Philosophy of the Human Mind, vol. 1; vol. 2, in 1814; both in several editions; vol. 3, with additions to vol. 1, in 1827; Edinburgh and London. In 1793 he published Outlines of Moral Philosophy, and in many editions, in 1795, Dr. Adam Smith's Essays, with account of his life and writings; in 1801, Account of Life and Writings of William Robertson, D.D.; in 1803, Life and Writings of Thomas Reid, D.D.; in 1805, A Short Statement of Some Important Facts relative to the late Election of a Mathematical Professor [Leslie], etc.; in 1806, Postscript to the same; in 1810, Philosophical Essays; in 1812, Some Account of a Boy Born Blind; in 1815, Part I. of A General View of the Progress of Metaphysical, Ethical, and Political Philosophy, since the Revival of Letters in Europe; (Part II., 1821), prefixed to the supplement to the 4th and 5th edition of the Ency-

clopedia Britannica, also separately, Edin. 1821, Bost. 1822; in 1828, The Philosophy of the Active and Moral Powers of Man, 2 vols., 8vo, Edin., Bost., 1828, 2 vols. in French, by Dr. L. Simon, 1834. Complete works, Cambridge, Mass., in 7 vols., 1829, also 1831. The collected works with additions and memoir by Sir Willam Hamilton, 10 vols. 11th in preparation. 1854–58, Edin.

The Elements of the Human Mind, Vols. 1, 2, 3 (II., III., IV., Collected works)—published respectively in 1792, 1814, 1827—contain Stewart's most important psychological observations, and to a large extent his ablest metaphysical disquisitions. As these volumes appeared at intervals somewhat remote from one another, they also furnish much instructive information in respect to the progress of psychology and philosophy during Stewart's lifetime. The Introduction, Vol. I., discusses philosophy in general, from the Baconian stand-point, and vindicates the application of the experimental or inductive method to the phenomena of the human mind. It might properly be called an apology for philosophical and psychological studies, from the charge of being necessarily metaphysical. Stewart contends that our knowledge of matter and mind is relative only and limited to their so-called attributes, while yet a reflective examination of the processes and principles which are fundamental to all inductive inquiries must be of eminent service in studying the laws of spirit. His treatment of "External Perception" is limited to a few comments upon the errors which have prevailed among philosophers and the explanation of these errors. His own doctrine is stated almost within a single page, and seems to suppose the reader to be acquainted with the analyses of Reid, which Stewart implies that he accepts as altogether satisfactory. Attention is assumed to be a familiar experience without being explained, and its relations to memory only are discussed. The possibility that voluntary actions should become automatic is explained by the law of association, and the doctrine is advanced that we can attend to no more than one object at a time. Conception is employed by Stewart to designate the object of the representative power or phantasy, and Stewart maintains that there never can be such an object without the momentary belief of its real existence. Under Abstraction, Stewart treats of the formation and nature of general conceptions, which are often called by him *ideas*, and treated as the equivalent to the ideas of the ancient schools. Stewart is himself a conceptionalist. In Chapter V. of the Association of Ideas, Stewart goes far beyond Reid, finding in Hume the ablest expounder of the laws of association, but notices that our associations are not confined to the three relations recognized by Hume, but rest upon every possible relation. He discusses the power which the mind has over its trains of association, and then proceeds to explain, by means of prevalent association, the phenomena of wit, rhyming, poetical fancy, invention, dreaming, and adds an extended discussion of the influence of habits of association upon speculative conclusions, judgments of taste, and morality. Memory and imagination are both treated with great fulness of practical illustration. The second volume of the Elements treats of three principal topics: Reason and the Fundamental Laws of Human Belief, Reasoning and Deductive Evidence, and The Experimental or Inductive Logic. In these discussions Stewart proves himself to be an able and acute metaphysician in spite of himself, treating as he does, of the *à priori* elements or conditions of all scientific knowledge. The views expressed are in general the same as those of Reid, but with greater exactness of statement and nicety of discrimination. The essential differences between several classes of the so-called principles of common sense, the ambiguity and consequent infelicity of the appellation, and the great variety of distinct processes which are indiscriminately huddled together, not only by popular writers, but by the most careful philosophers, under the designations

of reason and reasoning, these are all commented on with no little acuteness, making the volume a valuable contribution to philosophy. One serious defect in it is not to be disguised or overlooked: Stewart had not the courage of his opinions. He had not the confidence in the distinctions which he made, and in the principles on which he proposed to build them up into a consistent system, nor did he follow them out in their minute and ramified applications. He was characteristically cautious of what he considered excessive refinement and broad generalizations. For a metaphysical philosopher he was afraid of what he styled the subtleties of metaphysics when stated into forms too refined to be readily apprehended by men of general culture in the scholastic language of abstract terminology. He preferred to concern himself with the application of his principles to special cases, and the illustration of them by concrete examples. The third volume of the Elements consists of a disquisition upon language in general, and its relations to thought, upon the Principle or Law of Sympathetic Imitation, and upon the several varieties of intellectual character as exemplified in the metaphysician, the mathematician, the poet, and the sexes; also a comparison between the faculties of man and those of the lower animals, with a very curious and valuable Appendix concerning James Mitchell, a boy born deaf and blind.

§ 37. The Philosophical Essays, originally published in 1810, 4to, afterwards 1816, 1818, 8vo, are by far the most important contributions of Stewart to philosophy proper. The Preliminary Dissertation treats of prevalent errors in respect to the philosophy of the mind, among which he criticises the physiological theories of Hartley, Bentham, Priestley, and Darwin (the elder), and vindicates for the Philosophy of the Mind a place among investigations properly philosophical. The first essay, Part I., treats with great critical ability of the defects in Locke's account of the origin of knowledge, showing that the applications made of his theory by Berkeley and Hume were entirely legitimate and logical. The second essay treats with equal ability of the Idealism of Berkeley and our belief in the existence of the material world. In this essay Stewart introduces his view of the mathematical affections of matter. In the third he treats of the actual influence of Locke's authority upon the French illuminati and encyclopedists. In the fourth he discusses the theories of Hartley, Priestley and Darwin; and in the fifth he treats of the argument for materialism supposed by Horne Tooke to be furnished from the etymological significations of many words. Part II. contains four essays relative to matters of taste: 1. On the beautiful; 2. On the sublime; 3. On the [faculty or habit] of taste; 4. On the culture of certain intellectual habits connected with the first elements of taste. These essays in respect to principle and illustrations follow in the line of Burke, Price and Alison, the last of whom explains the æsthethic emotions by the operation of the associative power.

§ 38. The Philosophy of the Active and Moral Powers of Man, first published in 1828, contains a psychological analysis of the emotions, Stewart's theory of the moral faculty and of the will, with some contributions to natural theology. He follows the views of Reid very closely upon all these topics, although his analysis is more refined and exact, and his critical and philosophical discussions of metaphysical questions are more various and learned. The treatise deserves greater consideration because there are so few treatises in the English language that treat of the emotions. It is characterized by the defect that is universal in the writings of Stewart, rather discoursing of the opinions of others than defining and defending his own. It abounds in interesting matter, and is one of the most attractive of Stewart's works. The Dissertation on the Progress of Metaphysical, Ethical and Political Philosophy since the Revival of Letters in Europe, Part I., 1815—Part II., 1821—is very incomplete and unequal. The portion

most thoroughly elaborated is that on Locke and Leibnitz. His remarks on the Scottish school of metaphysicians are acute and valuable. His notice of Kant's philosophy is chiefly instructive as it shows how inadequately the reach and import of the critical philosophy was appreciated by one of the ablest philosophers and critics of Great Britain. The Lectures on Political Economy were published for the first time in 1855 in the Collected Works by Sir William Hamilton. They were printed from the earlier MS. notes of the author, with additions from the notes of those of his pupils. They fill two volumes and follow in general the topics and modes of discussion of the school of Adam Smith. The Elements of the Philosophy of the Human Mind and The Philosophy of the Active and Moral Powers have been extensively used as text-books in their original and abridged forms in Great Britain and America.

P. S.—A critic of Stewart in particular, and of the other Scottish philosophers in general, deserves to be named—John Fearn, resident in London for some years, and a man of much acuteness and originality, though his life remains to be written. His works are as follows: An Essay on Human Consciousness, 1811, 4to; An Essay on Immortality, 1814; A Review of the First Principles of Berkeley, Reid, and Stewart, 1813, 4to; An Essay on the Philosophy of Faith, 1815; On Primary Vision, 1815, 8vo; A Letter to Professor Stewart on the Objects of General Terms, 1817; First Lines of the Human Mind, 1820, 8vo, cf. Monthly Review, Feb., 1822; Rationale of Laws of Cerebral Vision, with supplements, 1830, '32.

§ 39. Thomas Brown, M.D., born at Kirkmabreck, Scotland, 1778. Student of Law, then of Medicine, Edinburgh. M.D., 1803. Associate Professor with Dugald Stewart in Moral Philosophy, 1810. Died 1820.

He was distinguished as an author in other departments than philosophy. At the age of 18 he published an able criticism, or "Observations on the Zoonomia of E. Darwin," and at different periods of his life various poetical compositions. In 1804, Edinburgh, he gave to the public An Inquiry into the Relation of Cause and Effect. 2d ed., 1806. 3d, with additions, 1818. After his death, Lectures on the Philosophy of the Human Mind. 1820, 4 vols. 8vo, Edinburgh. Compare Accounts of the Life and Writings of Thomas Brown, M.D., by David Welch, Edinburgh, 1825.

Dr. Brown was distinguished for acute and subtle analysis and eloquent exposition. His "Inquiry," etc., was his most elaborate work, and is written in an eloquent but sober diction. His Lectures were published after his death, in the form in which they were delivered to his classes. They were designed for a somewhat miscellaneous and susceptible audience, which was ready to respond to brilliant rhetorical exhibitions. Being composed by a writer distinguished for a luxuriant imagination no less than for philosophical acuteness, it is not surprising that their diction should be diffuse and ornate, and that

they abound in original passages of splendid declamation as well as in copious extracts from eminent writers. The effect of these lectures during the lifetime of their author was very decided, and the influence upon the course of subsequent speculation of some of the doctrines which he set forth so impressively has been most manifest. Brown retains the doctrine insisted on by Reid and Stewart, that there are certain original intuitions which in a system of knowledge take the place of unproved first principles. Such are the belief in causation and "the irresistible feeling of identity" of the self, or soul. He contends that the Scottish philosophers extended far too widely the number of their first principles, and he followed the example of Stewart, of resolving into frequent and inseparable associations many beliefs which had been considered as original and incapable of analysis. He rejects the doctrine of consciousness which had been accepted by Reid and Stewart, and in this was followed by Hamilton, at least in part. He contemplates the phenomena of the soul as *successive states*, which he usually designates as feelings, and by introducing this appellation he practically set aside the distinction between knowledge and belief on the one hand, and sensation and emotion on the other. The term suggestion, which had been used by Berkeley and Reid in a special metaphysical meaning of *à priori* affirmation, as well as in the ordinary sense of association, he first limits to the last in what he calls *simple suggestion*, and then enlarges it as relative suggestion, so as to include all the processes in which comparison or judgment is involved, and thus provides, in a way of his own, for the suggestion—*i. e.*, the *relative suggestion, of being, self, space, and time.* But comparison and all the forms of relative suggestion are still *feelings* of likeness and unlikeness, etc., etc. Brown's analysis of the processes of sense-perception is acute and subtle; and he attaches great importance to the *muscular sense*, not only for the special sensations which it gives, but also for its supposed significance in the generation of the relations of externality and of extension. His views of the generation or origination of the relations of space by the means of relations of time, and of externality as the joint products of the muscular sensations and causality—*i. e.*, of uniform succession—are not unlike those of the school of Herbart. and have been reproduced in part by John Stuart Mill.

In respect to *causation*, he agrees with Hume, that the relation itself is resolved into invariable succession, but resists entirely his resolution of our belief in its universal presence into customary asso-

ciations, contending that the belief is a first truth or intuitive belief. In his analyses of psychological phenomena, he makes a more liberal use than Stewart of the associative power; and the influence of Brown's terminology and of his methods and conclusions has been potent in the formation and consolidation of the Associational Psychology—represented by J. Mill, J. S. Mill, Alexander Bain, and Herbert Spencer.

Brown's philosophy is characterized by Sir J. Mackintosh as "an open revolt against the authority of Reid." He openly disputed the merit of Reid as to his supposed exposure and refutation of the ideal theories of sense-perception; he limited the number and importance of the principles of common sense, and greatly extended the sphere of association, in evolving apparently simple and indecomposable products from manifold elements of experience and feeling. In these particulars, his teachings and influence differ from those of Reid—cf. Hamilton's Discussions, etc., II., Philosophy of Perception, also *Edinburgh Review*, Vol. 53, No. 103.

§ 40. The Inquiry into the Relation of Cause and Effect appears in its modified and completed form in the third edition in 1818. The first edition, 1804, was limited to an examination into the theory of Hume. The second, 1806, entered into the discussion of the correct theory and its applications. The third edition is divided into 4 Parts: 1st, On the Real Import of the Relation of Cause and Effect, in which a cause is defined as "that which immediately precedes any change, and which existing at any time in similar circumstances has been always, and will be always, immediately followed by a similar change." Brown justifies this definition by considering all the classes of events to which the appellation is applied, whether these events are bodily or mental. Among the latter, special importance has been attached to the volitions, and Brown in analyzing the volitions is led to resolve them into permanent and prevailing desires consequent upon deliberation. Part 2d treats of the sources of delusion with respect to this relation. The author first asserts that substances are nothing diverse from their qualities, although we are tempted to regard the two as diverse. Language by its metaphors increases the illusion, as when we speak of the *bond of connection* between cause and effect. The conception of power as latent is next noticed. The exercise of power is, in fact, only a name for the presence of certain antecedent circumstances. Our senses are so imperfect as to fail to reveal many of these circumstances. Part 3 discusses the circumstances, in which the belief of the relation arises. Experience is the first named, the author contending that only after the experience of an antecedence and succession of two events does the belief occur—that one event is the cause of another. This belief is not the result of reasoning, nor does it proceed from the *à priori* axiom of the *sufficient reason* or any other axiom which expresses independent certainty concerning the physical forces. Part 4 is devoted to Mr. Hume's theory of our belief of this relation. He notices first the relation of Hume's special theory of causation to his general theory of the relation of ideas to impressions. He next inquires why frequent experiences seem to be necessary to ground the belief in a special connection of two events as cause and effect. To this question

he replies that they are necessary only to enable us to separate the events from all superfluous circumstances; and that customary occurrence, which Hume contends is the only explanation of the belief, is only necessary to enable us to effect this separation. But the way in which this customary occurrence contributes to this belief is not by effecting a ready transition from one idea to another, as Hume contends.

Next, Dr. Brown seeks to show that Dr. Reid errs in accepting Hume's idea of power, viz., that of invariable antecedence; while Dr. Reid is right in ascribing the belief in this necessary connection to an intuitive principle. He concludes with an argument and with notes, to show that his own doctrine of causation is entirely consistent with that belief in God and the possibility of miraculous events, both of which Hume denies.

§ 41. The Lectures on the Philosophy of the Mind contain Dr. Brown's psychological analyses, as given in the lecture-room. Dr. Brown was a physician, and he contemplated writing a treatise on the physiology of the mind. He devotes several preliminary lectures to the consideration of the methods appropriate to physical inquiry. He then proceeds to inquire how far the same methods are applicable to the mind. To this question he answers: Of mind and matter our knowledge is only relative—*i.e.*, we know only the phenomena of either; of the essence and possible capacities of either we know nothing. "Of the essence of the mind we know nothing but in relation to the states or feelings that form or have formed our momentary consciousness." But yet "it is the same individual mind which in intellectual investigation is at once the object and the observer." "But the noble endowment of memory with which the Creator has blessed us solves all the mystery of this singular paradox." By this faculty philosophy is possible; the mind, though simple, is extended and multiplied, the relation of thought to thought becomes possible, and we class the phenomena of spirit as we do the phenomena of matter. In Lecture 10, the author observes, that by the constitution of our nature we ascribe the phenomena of matter and of mind to one permanent subject. Our business is to analyze the phenomena of mind, as we analyze the phenomena of matter; but there is a difference, in that what we call a complex phenomenon of the mind is in itself indivisible. In Lecture 12 he treats of consciousness as equivalent "to the whole series of states of the mind, whatever the individual momentary states may be," and denies that there is a power by which the mind knows its own states, or that to this power the name of consciousness is applied, as is implicitly held by Locke and explicitly by Reid and Stewart. The direct experience of any mental state again does not imply the self as its subject. This comes only after the remembrance of several states "by that irresistible law of our nature which impresses us with the conviction of our identity." This belief in mental identity is defended against objections, and in this connection the doctrine of first truths, or truths of intuition generally, is distinctly emphasized. Lecture 16 he devotes to the classification of mental phenomena. After considering and criticising that commonly received, viz., the intellectual and active powers of understanding and will, he proposes a division into *external and internal affections*, *i.e.*, the affections occasioned by external agents and those which spring from the minds over activity. The internal affections he again subdivides into the intellectual states and the emotions. The external affections also include those which are commonly termed *sensations*. These sensations he subjects to a special analysis, more extended and apparently more subtle than any to be found in any previous English psychology. He begins with smell, which gives sensation only, or at the utmost, a sensation, with the suggestion of *a cause*, but nothing further—neither externality nor extension. The same is

true of hearing and taste. The belief of the external and the extended world he limits to touch only. In analyzing the phenomena of this sense, he groups its affections into the two classes of resistance and extension.

The experience of resistance he ascribes, not to the tactual experiences, but to those of the muscular sense. But even these would be regarded as purely subjective, did they not occur in a different causal (*i.e.*, time) order. Such a different order of cause and effects might be conceived in the act of stretching the arm, with or without pressure against a resisting object, and this would suggest the existence of an object differing from the mind itself—*i.e.*, as external. Extension is analyzed by a resort to the relations of time—*i.e.*, to the successive experiences of the muscular and other sensations. In connection with this analysis he considers—Lectures 26, 7,—Reid's supposed confutation of the Ideal system in which he charges him with ignorance of the system as originally held and with ignorance that it had been abandoned. (Cf. Hamilton's refutation of this critique. *Ed. Review*, vol. 52, No. 103. Discussions, II.) Lectures 27–8 are devoted to an analysis of the Feelings ascribed to Vision, in which Brown denies that the experience of visual sensations necessarily suggests extension in any of its relations, but contends that the internal and apparently inseparable connection of the two is to be explained by the process of association.

The Internal Intellectual states of the mind, Brown holds, are "all referable to two generic susceptibilities—those of simple suggestion and relative suggestion." Simple suggestion is equivalent to association as usually conceded. Relative suggestion occurs on the perception of two objects, when we have a feeling of any relation between them. The laws of simple suggestion are of two classes, primary and secondary. The primary laws are three, viz., Resemblance, Contrast, and nearness of Place and Time. The secondary laws are those which respect the circumstances which modify the action of the simple laws. Of these there are nine, as the original feelings are (1) of longer or shorter continuance, (2) more or less lively, (3) more or less often present, (4) more or less recent, (5) more or less pure from mixture, (6) variable with original constitution, 7 do. with temporary emotion, 8 do. with changes in the body, 9 do. with previous habits. To simple suggestion are reduced certain supposed Faculties of the mind, as Conception, Memory, Imagination, and Habit.

The feelings of *Relative Suggestion* are excited by objects which are coexisting and successive. Objects are really co-existent as those which are material, and seemingly such as the mental. To both belong the relations of position, resemblance, or difference, proportion, degree, and comprehension. The relation of resemblance explains the possibility of general notions, and of classification, the exercise of judgment, and Reasoning. Brown professes to be himself a Conceptualist, though he prefers the appellations Notionist or Relationist, and charges against the Nominalist that he overlooks the relation of resemblance. The syllogistic method he criticises as setting up what is a form of successful proof to others as the method of universal investigation. Reasoning is but a succession of judgments. The process is but a series of relative suggestions, of which the subjects are mutually related. We reason from particulars to particulars, when these mutual relations are discerned, as truly as from generals to particulars.

The Relations of succession, when they are invariable, comprehend all that we usually recognize as the relations of causes and effects. They provide for all the judgments of causality. The exclusive occupation of the mind with certain relative suggestions, is the same with the process usually called *abstraction*.

The next class of internal states of mind are *the emotions*. These differ from the intellectual feelings "by that peculiar vividness of feeling which every one understands, but which it is impossible to express by any verbal definition," etc. The Emotions are classed as Immediate, Retrospective, and Prospective. The immediate emotions are subdivided into those which do not, and those which do, involve moral affections. Under the first are Cheerfulness and Melancholy, Wonder at what is strange, Languor at what is tedious, Beauty and Deformity, Sublimity, Ludicrousness. Under the second are feelings distinctive of Vice and Virtue, Love and Hate, Sympathy, Pride, and Humility. The Retrospective Emotions having relations to others are Anger and Gratitude. The Retrospective Emotions which have reference to ourselves are Regret and its opposite, and Remorse and its opposite.

The Prospective Emotions comprehend the desire for Continued Existence, the desire of Pleasure, the desire of Action, the desire of Society, the desire of Knowledge, the desire of Power in the two forms of Ambition and of Power, the desire of the Affection of others, the desire of Glory, the desire of the Happiness of others, the desire of Evil to others.

The ethical theory of Brown starts with the principle that moral distinctions are original—*i.e.*, that there are certain feelings which are followed by approbation and the opposite. The foresight of certain actions not yet performed as respectively approvable and the contrary explains the sense of obligation; when we think of such actions as already past, we conceive of them as having merit.

The system of Dr. Brown, including his original classification of the powers of the mind, has had extensive currency in Great Britain and America. George Payne's Elements of Mental and Moral Science, etc., London, 1828, follows Brown very closely. John Young, LL.D., Prof. Mor. Phil, in Belfast (now Queens) College, in lectures on Intellectual Philosophy, Glasgow, 1835, conforms somewhat to Brown's classification and method with frequent dissent. Brown's lectures at one time were very extensively employed as a text-book in the United States, in an extended and an abridged form (by Prof. Levi Hodge of Harvard University. Bost., 1827). Prof. Thomas C. Upham, Elements of Mental Philosophy, etc., Portland, 1839, and many subsequent editions follow in part Brown's classification. The influence of Brown has been again revived in the Associational School, as has been already noticed.

Sir James Mackintosh, 1765–1832, was distinguished as a publicist, legislator, statesman, historian, critic, essayist, as well as philosopher. In philosophy, he published a Dissertation on the Progress of Ethical Philosophy chiefly during the 17th and 18th centuries—first in Encyc. Brit., 1830, and subsequently in a separate volume. Am. ed., Phil., 1832. Also Discourse on the Law of Nature and Nations, 1799. Also, two papers in the *Edinburgh Review*, vols. 27 and 36, on Stewart's Preliminary Dissertation in Encyc. Brit.

In general, Mackintosh adopts the principles and accepts the analyses of the Scottish school. In his ethical theory, however, he was largely influenced by the school of Hartley. Unlike Hartley, however, and all the Utilitarians, he emphasizes the will as a necessary condition of all that is peculiar in the moral sentiments, and ascribes the universality and authority of these sentiments to the circumstance that these sentiments are in immediate contact with the will, or the voluntary dispositions and desires. With this as a datum, he proceeds to build up the conscience as a natural and necessary product of the development of man's nature as trained in society, and as capable of forming associations so inseparable that the elements united should give no trace of their origin or presence in the new formation. He insists on the authority of conscience with the emphasis of Butler and of Kant. He contends that Benevolence

is the universal characteristic of human virtue, and that the tendency to happiness is the foundation of its excellence, although not in all cases the criterion by which we may judge of particular actions.

The name of Sir James Mackintosh suggests that of the inimitable Samuel Parr, D.D., 1747–1825, whose Spital Sermon, to which are added Notes—1804, 4to—is of some speculative and critical interest in the history of ethics. Dr. Parr also prepared for the press Metaphysical Tracts by English Philosophers of the last Century, which were published in 1837.

CHAPTER VII.—Scottish Philosophy Still Further Modified.

SIR WILLIAM HAMILTON. JAMES FREDERICK FERRIER.

§ 43. Sir William Hamilton, Bart., born at Glasgow, 1788. Ed. at Glasgow and Oxford. Called to the Bar 1813. Professor of Universal History in Edinburgh, 1821—of Logic and Metaphysics, 1836. Died in 1856. Published Essays in *Edinburgh Review* on Philosophy, viz.: On the Philosophy of the Unconditioned, October, 1829, vol. 50. On the Philosophy of Perception, October, 1830, vol. 53. On Logic, recent English Treatises, October 1832, vol. 56. On the Deaf and Dumb, July, 1835, vol. 61; On Idealism, Arthur Collier, April, 1839, vol. 68. As Articles on Literature and Education, collected with notes and appendixes, 1852, 2d ed. 1853. Many of these essays have been translated into French, with biographical and critical introduction by W. Peisse; also into Italian by S. Lo Gatto. A selection from these discussions was republished in America, with introduction by Robert Turnbull, D.D., New York, 1855. From the discussions and the notes, etc., attached to the works of Reid, O. W. Wight edited a volume, The Philosophy of Sir William Hamilton; New York, 1853; 3d ed. 1855. In 1846—London and Edinburgh—Hamilton published the works of Thomas Reid, D.D., fully collected, with abundant notes and supplementary dissertations—edition not finished till after his death—and in part from his papers, 1853. Also, in 1854, he began to edit the works of Dugald Stewart in eleven volumes (edition not complete at his death). Hamilton's Lectures on Metaphysics and Logic were edited after his death by Rev. H. L. Mansel, of Oxford, since Dean of St. Paul's, and John Veitch, since Professor in Glasgow, London, and Edinburgh, 1859–60, also Boston, 1859–60.

These works have been abridged and edited for schools, viz.:—The Metaphysics, by Prof. Francis Bowen, Cambridge, 1861. The Logic, by Prof. Henry N. Day, Cincinnati. 1863. An Outline of Sir William's Philosophy: a text-book for students, was prepared by Prof. J. Clark Murray, Boston, 1870.

Cf. Memoir of Sir William Hamilton, Bart., Professor of Logic and Metaphysics in the University of Edinburghe. By John Veitch, M.A., Professor of Logic and Rhetoric in the University of Glasgow. William Blackwood & Sons, 1869.

Sir William Hamilton is the most conspicuous figure in the history of English Philosophy within the present century. His influence has been more efficient than that of any other person in arousing the attention of his countrymen to a fresh interest in the profoundest problems of philosophy, and in the careful study of its erudition and history. He was confessedly the most learned student of his time. No writer had so completely mastered the works of the Aristotelian commentators, of the schoolmen and their successors. His erudition was more than a dry accumulation of the principles and doctrines of past thinkers. He uniformly studied the philosophies of the past in the light of the discussions of the present, and saw with clear and comprehensive insight the relations of the one to the other. The dissertations appended to his edition of the collected works of Reid are eminent examples of his comprehensive and sagacious learning. He was also an acute critic. The critical reviews, published as discussions, etc., as well as the foot-notes upon Reid, are examples of his critical sagacity. But he was pre-eminently a logician, delighting in the forms of the syllogism and in the history of all logical doctrines. He was also interested in psychological observations and in metaphysical analysis, and pre-eminently able in both.

§ 44. In Logic, Hamilton introduced what he called the Quantification of the Predicate, the design of which was to dispense altogether with the necessity of the conversion of propositions. This change involved an entirely new scheme of logical notation, which was perfected by Hamilton, and has been introduced or noticed in many subsequent treatises on Formal Logic. George Boole, Mathematical Analysis of Logic; Cambridge, 1847; also Investigation of the Laws of Thought, etc. London and Cambridge, 1854. Also, An Outline of the Necessary Laws of Thought, etc., etc. By William Thomson, Fellow and Tutor, afterwards Provost of Queen's College, Oxford—now Archbishop of York, 1842–1849–1853, etc., etc.; also T. Spencer Bayne's New Analytic.

In 1846, Professor Augustus De Morgan, author of Formal Logic, etc., published a statement in answer to an assertion made by Sir William Hamilton, in respect to his own (Sir William's) originality in this respect—to which Hamilton published a letter in reply. See articles in *The Atheneum* for 1847, also in *Contemp. Review* for April, 1873.

In Psychology, Hamilton follows in general the method and the terminology of Reid.

He was, however, in respect to some points, very largely influenced by Kant. Kant's influence over him, however, varied in different periods of his life, and occasioned some apparent inconsistencies of opinion in his works.

The phenomena of the soul were divided by him into the phenomena of Knowledge, the phenomena of Feeling, and the phenomena of Conation, which included those of will and desire. The cognitive Faculties he divided into the Presentative, the Conservative, the Reproductive, the Representative, the Elaborative, and the Regulative. Consciousness is defined as the recognition by the thinking subject of its own acts and affections. As such, it is actual and not potential knowledge, it is immediate and not mediate, it implies contrast, judgment and memory. But Hamilton agrees with Brown, and differs from Reid and Stewart, in holding that there is no faculty of consciousness coördinate with the other intellectual powers. He however divides the Presentative Faculty into External Perception and Internal Perception or Self-consciousness. The office of self-consciousness is limited to the apprehension of the phenomena of spirit. These phenomena it apprehends under the forms of Time and of Self.

Although Hamilton uses the term self-consciousness, he denies in the most explicit terms that we have any direct consciousness of the ego or self. Our knowledge of mind, as of matter, is limited to its phenomena. The reality—a being to which these pertain—would be "suggested," in the language of Reid, Stewart, and Brown, by these phenomena, and Hamilton would seem to agree with them in thought, if not in terminology.

By External Perception we apprehend the phenomena of the external world, or of the non-ego under the form of Space. External Perception consists of two elements, viz., Sensation and Perception proper, which are contrasted with one another respectively as feeling and knowledge, and which coexist and energize in an inverse ratio to each other. By the first, we are aware of certain special affections of the soul as an animated organism—by the second, of general relations under which this organism exists as material. The direct objects of perception proper are the phenomena and relations of the material organism. These are subdivided into the three classes of qualities or attributes of matter, viz., the primary, the secundo-primary, and the secondary; the first being percepts proper, the second being percepts proper and sensations proper, the third being sensations proper. By the first, we apprehend matter as occupying space and contained in space, involving divisibility, size and shape, mobility and place. The second class are contained under the category of resistance or pressure, and include gravity, cohesion, the compressible elastic, and relatively movable or immovable. The third are the powers to produce sensations in us.

Of this Non-ego we have a direct, and not a representative knowledge. The doctrine of Representative Perception is the special subject of criticism and refutation by Hamilton. The various forms in which this theory has been held were collected by him with exhaustive erudition and arranged in a subtle and comprehensive classification. Cf. *Ed. Review*, No. 103—Art. on the Philosophy of Perception, also Discussions, etc. Works of Reid, Dissertation C, Appendix, also Lectures on Metaphysics, Lectures 21–26. As to what this Non-ego is, whether it consists of phenomena with their relations, giving the so-called Qualities of matter only, or whether it also includes matter as a Being, there is a difference of opinion among the followers, interpreters, and critics of Hamilton. His most friendly interpreters must confess that his language has been more or less influenced by the principles of Kant, and usually teaches that matter is in itself unknown, and that, so far as it is perceived, it is perceived only in its relations to the sentient and percipient mind. See Discussions, App. I. B. Phil. of Perception. Metaphysics, Lectures 8–25. Works of Reid, Dissertation, 3., II., p. 866. Cf. Fichte Zeitschrift, vol. 27, pp. 59–97. Cf. Burton Scoto-Oxonian Philosophy.

The Conservative faculty, or the faculty of retention, is treated by Hamilton as a special faculty, for the reason that it, as he asserts, is governed by laws of its own, and is exerted by different individuals with differing energy. Its activity is out of consciousness, and may be analogous to other latent modifications of the soul's energy, such as must be assumed to explain the sense-perceptions. These modifications do not, however, pertain to any physical or physiological organ of memory. The reproductive or resuscitative faculty is the power by which one thought suggests another under what are called the laws of association. These laws are subjected by Hamilton to special historical research and scientific criticism. Works of Reid, Note D** and D*** Met. Lecs. 31–32. All these laws are reduced to a single law or principle, viz., the law of redintegration, according to which parts of the same mental state tend to recall one another. To this law Hamilton, in the Dissertations, adds certain relations of similarity and contrast as not covered by the law of redintegration. The Representative power is not clearly defined as a third generic faculty, but is treated under that special modification usually recognized as the Imagination, the creative function of which is limited to the capacity of selection and combination, and the dignity of which is made dependent on the presence and interfusion of the thought-power, or the faculty of relations. Of the representative power, pure and simple, he treats only in hazarding the remark that to every representation of a sense-percept the activity of the appropriate sense organ is required as a condition.

The Elaborative Faculty is called by Hamilton the Faculty of Relations, the Faculty of Comparison, the Discursive Faculty, and the Faculty of Thought. It begins with comparison, involving a judgment of existence, of discrimination, of similarity, and a collection of several like attributes; upon this, classification is superinduced, giving two kinds of notions, the collective and the abstract, the last involving two relations, viz., of extension and comprehension. The product is the Concept. In respect to the nature of this product Hamilton ranks himself against the Realists and the extreme Conceptualists and with the moderate Nominalists, such as Berkeley. Judgment enters into all the cognitive faculties, but, as proper to the Elaborative faculty, it involves the comparison of a partial with a total conception and may be in the line of extension or comprehension. Reasoning is a double comparison, in which two parts and wholes mutually related are compared. It is either from the whole to the parts or from the parts to the whole, and is respectively Deduction and Induction. It may be in the line of either comprehension or extension. The only Induction which Hamilton recognizes is what he calls purely logical. That which is ordinarily so called he rejects as illogical.

The Regulative Faculty is the faculty of *à priori* principles or relations. It is called a faculty by courtesy, not as "a proximate cause of a definite energy, but as the source of necessary cognitions." It is designated by various names, among others by the appellation *common sense*. To the justification of the use of this term and to the vindication of common sense as an authority in Philosophy, Hamilton devotes one of the ablest and the most learned of his dissertations in the Appendix to the works of Reid—A. The essential characters of the original cognitions are Incomprehensibility, Simplicity, Necessity, and absolute Universality and comparative Evidence and Certainty. The characteristics of all positive knowledge moreover are two—Non-contradiction and Relativity. By this last it appears that the mind can conceive only the limited and the conditionally limited. We cannot therefore conceive an absolute whole nor an ab-

solute part: neither an infinite whole nor an infinite part. The conditioned is the mean between two extremes, both unconditioned, neither of which can be conceived as possible, and yet one must be assumed as necessary. Relativity is not a law of things, but a law of thought. So far as the relations of existence are concerned they are intrinsic or extrinsic. The intrinsic relations are those of substance and quality involving one another, but neither thinkable apart. The Extrinsic are the relations of time, space, and degree. These three are absolutely inconceivable and but relatively conceivable. Things in time and space and degree are likewise conceivable relatively to one another.

Causation is subjected by Hamilton to a special analysis. Eight theories in respect to the origin of this relation and of our belief in it are proposed and criticized—4 *à posteriori* and 4 *à priori*. *Met. Lec.* 39, 40. Subsequently causation is explained as a special application of the law of the conditioned as follows:—The mind is unable to conceive of anything except under the forms of existence and of time. Whenever a phenomenon is apprehended as a fact, it cannot be conceived as non-existent, but it can be conceived as existing at another time under another form. The same being necessarily conceived as existing in two forms at different times is reciprocally cause or causes and effect. We believe this relation not in the exercise of a power or positive capacity of our nature, but under the constraint of a powerlessness of our nature to think otherwise. The same is true of our belief in God and Free-Will. We cannot conceive of an uncaused or self-existent Being, but we can believe that such a Being exists. Similarly, we cannot conceive of a free act, *i.e.*, an absolute commencement, but we are compelled to believe it. We rise above the autonomies that must necessarily attend the effort to conceive Time, Space, Freedom, and God, and affirm that all these in some sense are. In a letter to Mr. H. Calderwood, Met. App. No. V., Hamilton asserts: "When I deny that the Infinite can by us be known, I am far from denying that by us it is, must, and ought to be believed." For a fuller explanation of Hamilton's philosophy of the Conditioned, see Ed. Rev., Oct., 1829, Discussions Art. in which Cousin and Schelling are especially criticized; also Met. Lectures, 39-40; also Appendix, IV., V., VI. Hamilton's influence has been more efficient in exciting an interest in, and a taste for, Philosophical researches than in founding a school or giving currency to a system. His vast erudition, acute criticism, catholic spirit, and his devotion to truth, have brought blessings to the English-speaking people which they will be slow to forget.

§ 45. Among the disciples and adherents of Hamilton the most conspicuous is Henry Longueville Mansel, 1820–1871, Fell. St. John's Coll., Oxford, 1842; Wayneflete Prof. in Magdalen, 1859; 1867, Prof. of Eccles. History; 1868, Dean of St. Paul's; Edited Aldrich's Logic, 1849; Prolegomena Logica, 1851; Philosophy of Kant, 1856; Metaphysics, for Encyc. Brit., 1857, published separately in 1860; Limits of Religious Thought, Bampton Lecture, 1858; Examination of Maurice's Strictures, etc., 1859; Philosophy of the Conditioned, 1866. Miscellaneous Essays and Papers, 1873.

The principles of Mansel's system are exhibited in the Prolegomena Logica and Metaphysics. He sharply distinguishes Thought from the other and lower kinds of knowledge. He insists on an immediate knowledge of the ego, or the spiritual substance, in contradistinction from Kant and Hamilton. Mansel also dissents altogether from Hamilton's explanation of the nature of causation and the grounds of our belief in its universal applicability. He makes the ultimate test of conditioned in the concept and judgment to be the possible combination of the elements of each in a single presentative object. He makes the unit of knowledge to be an act of judgment. He contends that thought knowledge and presentative knowledge are both limited to conditioned, *i.e.*, to finite objects. When we attempt to apply them to the unconditioned we fall into contradiction of both thought and language. The unconditioned we cannot know by positive thinking, but only by that which is negative. We can only know it by "negative thinking," which negative thinking is an exercise of activity to which we are compelled, but the products of which we cannot bring under the limits of positive knowledge. This is true not only of the so-called natural attributes of the Infinite and Absolute, but it is true of his moral attributes as well. As we cannot measure the first by any capacities of ours to limit or define them, so we may not test the latter by any standard derived from human morality. These applications of his principles to theology are drawn out in detail and with abundant confidence in the Limits of Religious Thought. The Bampton Lectures, with this title, excited very general attention at the time when they were delivered, and have been the occasion of active discussion between those who accepted and those who rejected their teachings. The adherents of Mansel contend that these principles furnish the only solid and tenable basis for rational belief in Theism and a revealed Theology, and also the only relief from the philosophical and ethical difficulties which are found in the Scriptures. Vigorous replies were written to these Lectures. Prominent among these are the following: What is Revelation? Cambridge, 1859; Sequel to the inquiry, What is Revelation? Cambridge, 1860; to which Mansel replied in the Examination of Maurice's Strictures, already noticed; by Rev. C. P. Chretien, A Letter to the Rev. F. D. Maurice, etc., etc.; by Prof. Goldwin Smith, in Rational Religion, etc., 1861; by John Stuart Mill, Examination of Sir William Hamilton's Philosophy, etc., 1864, Chapter VII., to which Mansel replied in The Philosophy of the Conditioned, 1866; by John Young, Reason and Faith; by Henry Calderwood, Philosophy of the Infinite, 1854, 2d ed. 1861; by James McCosh, Intuitions of the Mind, 1860; also, The Supernatural in relation to the Natural, 1862; Defence of Fundamental Truth, 1866. Last of all, we name Herbert Spencer, First Principles, etc., who maintains that we are compelled by the necessities of finite and conditioned thinking to assume an Absolute and Infinite, and also compelled to form some definite notions of the same, although these of necessity are only approximative and therefore doomed to be set aside by those which shall be subsequently evolved.

Among these criticisms, those of Henry Calderwood, since Prof. of Mor. Phil., Univ. of Edin., are especially significant, if for no other reason, because they were published in the lifetime of Hamilton, and received a brief notice in a letter subsequently published in the Appendix to the Lectures on Metaphysics, Appendix V. (*d*). This letter was written on occasion of the publication of the first edition of Calderwood's treatise, with title, The Philosophy of the Infinite, with special reference to the theories of Sir William Hamilton and M. Cousin, by Henry Calderwood, Edinburgh, 1854. The second edition is greatly enlarged, and was published under the following title: Philosophy of the Infinite: A Treatise on Man's Knowledge of the Infinite Being, in answer to Sir William Hamilton and Dr. Mansel. By Rev. Henry Calderwood. Cambridge and London, 1861. In the appendix to this edition, Calderwood replies to Hamilton's letter. In this review Calderwood controverts every one of the peculiar positions of Hamilton's doctrines respecting the Infinite, including those peculiar to Mansel. His standpoint is that of positive Theism as a necessary condition of the knowledge of the finite, and therefore in all which it involves as possible human knowledge; Faith, in Calderwood's theory, being not opposed to knowledge. In this respect his position is clearly distinguishable from the positions taken by John Stuart Mill and Herbert Spencer.

§ 46. James Frederick Ferrier, 1808–1864; born in Edinburgh; University of Edinburgh and Baliol Coll., Oxford, 1825–1831; Professor of Civil History, Edin., 1842; Prof. of Moral Philosophy and Political Economy, St. Andrews, 1845, contributed various articles in Blackwood's Magazine: *e.g.*, 38–9 a series under the title of "An Introduction to the Philosophy of Consciousness;" in 1847, Reid and The Philosophy of Common Sense. In 1854, he published Institutes of Metaphysics, The Theory of Knowing and Being, 2d ed. 1856, which provoked sharp replies, *viz.*: "An Examination of Professor Ferrier's Theory of Knowing and Being," by Rev. John Cairns. "An Examination of Cairns' Examination of Professor Ferrier's Theory of Knowing and Being," by Rev. J. Smith. "The Scottish Philosophy, a Vindication and Reply," by Rev. J. Cairns. "Scottish Philosophy, the Old and New," by Prof. Ferrier.

After the author's death his Remains were published, viz. "Lectures on Greek Philosophy and other Philosophical Remains of James Frederick Ferrier," etc., etc. Edited by Sir Alexander Grant, Bart., LL.D., and E. L. Lushington, M. A. 2 vols. 1866. These Remains consist of the Introduction to the Philosophy of Consciousness, and other philosophical articles from Blackwood's Magazine, and some other controversial and explanatory papers.

§ 47. Ferrier took from the first a critical and polemic attitude with respect to the current philosophy of Reid and the school of common sense, not merely in many points of detail, but in respect of its fundamental peculiarity, as he viewed it, of absorbing philosophy into psychology. It would seem, indeed, from his starting-point in the analysis of the phenomena and fact of consciousness, that he was only an expounder of psychology. But he insisted that he was unfolding a "theory of knowing and being;" that he did not confine himself to the observation of facts, but provided for a statement of the fundamental conceptions of philosophy and the deduction of authorized conclusions, or what he calls "a reasoned philosophy." The distinctive peculiarity of his system is that he begins with the fact of consciousness as involving the Ego which is conscious of itself and its acts, and which recognizes itself as present and necessarily entering into all its products, so that we can neither conceive of matter, or the *not me*, except as made up also of the *me* as perpetually present, and a necessary constituent of the conception of matter, both as a whole and in its separate portions. In Ferrier's own language: "The only material world which truly exists is one which either actually is or may possibly be known. But the only material world which either actually is or may possibly be known, is one along with which intelligence is and must be also known. Therefore, the only material world which truly exists, is one along with which intelligence also exists. Therefore the *mere* material world has no real and absolute existence. But neither is it a nonentity (I am no idealist), for there is no nonentity any more than there is entity out of relation to intelligence." Remains, Vol. I., p. 397.

'The speculation is threefold. *First*, the theory of knowing (epistemology); *secondly*, the theory of ignorance (agnoiology); thirdly, the theory of being (ontology). The theory of ignorance is that which merits most attention, if not on its own account, at any rate on account of its consequences. It seems to me to be an entire *novelty* in philosophy."

There are two kinds of ignorance, but only one of them is ignorance properly so called. There is, *first*, an ignorance which is incident to some minds as compared with others, but not necessarily incident to all minds."

Secondly, there is an ignorance or nescience which is of necessity incident to *all* intelligence by *its very nature*, and which is no defect or imperfection or limitation, but rather a perfection." "No man can be ignorant that two and two *make five;* for this is a thing not to be known on any terms or by any mind. This fixes the law of ignorance, which is, that we can be ignorant only of what can (possibly) be known," or in barbarous locution, "the knowable alone is the ignorable."

What then is the knowable alone, the only possibly knowable * * * The Epistemology answers this question, and fixes *thing mecum*, *object plus subject*, *matter plus mind*, as the only knowable.

But what becomes of "Thing *minus me*" "Object *by itself*," "Matter *per se*," Kant's "Ding an sich." "It is," says Kant, "that of which we are ignorant" * * It is *not* that of which we are ignorant, because it is not that which can possibly be known by any intelligence on any terms. To know thing *per se* or *sine me*, is as impossible and contradictory as it is to know two straight lines enclosing a space; because mind by its very law and nature must know the thing *cum alio*, *i.e.*, along with *itself* knowing it. Therefore it is just as impossible for us to be ignorant of matter *per se*, thing *minus me*, '*Ding an sich*,' as it is impossible for us to know this."

"Now for a glimpse of Ontology. * * In answer to the question, What is real and absolute Being? we must either reply, It is that which we know, in which case it will be *object plus subject*, because this is the only knowable; or we must reply, It is that which we are ignorant of, in which case, also, it will be *object plus subject*." Remains, I., pp. 483, '4, '5.

Ferrier reminds us of the earlier philosophy of J. G. Fichte, in his method of reasoning. Among all English writers he has a rare pre-eminence for the clearness and liveliness, the elegance and force of his style. He has called attention to many single principles which are often overlooked; but his system has found few if any disciples.

CHAPTER VIII.—The Revived Associational Psychology and Philosophy.

§ 48. The Associational Pyschology or Philosophy, as held by Hartley and Priestley and Dr. Darwin, seemed to have exhausted its resources as an independent and self-sufficing system. As we have seen, it left a distinct and definite impress upon the teachings of Dugald Stewart, and one that was more decided upon those of Dr. Thomas Brown. It was made the basis of a theory of taste by Archibald Alison, 1757–1839, in his Essays on the Nature and Principles of Taste, 1790. It

was accepted by Sir James Mackintosh, 1765–1832, as largely modifying our ethical judgments and emotions. Dissertation exhibiting a general view of the Progress of Ethical Philosophy, etc. Encyc. Brit. and published separately 1830. By none of these writers, however, was the principle of association made the sole explanation of psychical phenomena. It was reserved for James Mill to reassert this in a form more decided, if possible, than it was propounded by Hartley, stripped, however, of the materialistic adjuncts which Hartley attached to it. He was followed by his son, John Stuart Mill, who accepted the system of his father with filial fondness and devotion, although with concessions and criticisms, which often threaten its integrity and consistency. Alexander Bain has also illustrated it in the main, with a large accession of phenomena purely physiological, and some independent suggestions. George Grote, the illustrious historian in the fields of general and philosophical history, has criticized the philosophies of Plato and Aristotle from the same point of view. George Henry Lewes has written a General History of Philosophy from the same standpoint, in the metaphysical spirit of Comte, which is shared by all the Associationalists. The doctrine that psychical states are developed by inveterate and inseparable, association prepared some of this school to accept the more general doctrine of the evolution of species in the sphere of animal and vegetable life, which was suggested by Lamarck and subsequently revived by the author of The Vestiges of the Natural History of Creation, on grounds of analogy drawn from the Nebular Hypothesis on the one hand, and the supposed successful experiments of producing organic germs from inorganic matter on the other, and has been reinforced by the observations and speculations of Charles Darwin, and the undecided and doubtful allegiance of Richard Huxley the physiologist. The doctrine of the Correlation of Forces has been used as furnishing decisive analogies in the same direction. Representing all these tendencies and doctrines, Herbert Spencer has aimed to widen the psychological principles of the Associational psychology into a universal doctrine of Evolution, which should not only provide for the evolution of all forms of Being, material and spiritual, but should also provide for the evolution of the fundamental principles of philosophy itself.

One characteristic of the revived Associational school is deserving of notice, viz., that it has sensibly felt the influence of the new Scottish and German systems, and has in consequence been modified in important

particulars by its new expounders. Under the pressure of new discussions of old questions, its advocates have extended the range of their inquiries and made concessions which, in the opinion of their antagonists, are fatal to the consistency and exclusiveness of their own theories. In the hands of its various expounders the Associational psychology has, in the opinion of its critics, changed some of its fundamental positions, and has constantly widened the range of its inquiries. No two writers teach the same doctrines, although they all agree in the spirit and attitude with which they approach the problems of philosophy, and hold a common relation to ethics and theology.

These views have been earnestly controverted by many writers, the most or all of whom are known to a larger or smaller number of readers.

§ 49. James Mill, 1773–1836, born in Montrose, Scotland. Educated at the University of Edinburgh for the ministry, but abandoned the clerical profession and devoted himself to literature. After writing his History of British India, appointed, in 1819, Second Examiner for the East India Company. In 1831, Chief Examiner of the East India Correspondence. Published History of British India in 1818; Elements of Political Economy in 1821; Essays on Government, etc., etc., 1828; Analysis of the Phenomena of the Human Mind, 1829; Fragment on Mackintosh, 1st ed., (*anon.*), 1835, 2d ed., 1870. Mr. Mill exerted great influence in his lifetime as a publicist and politician. He was the founder of the Liberal party in politics and sociology, which has become so influential as represented by his son, John Stuart Mill, and many other able men. His principal contribution to philosophy was the Analysis of the Phenomena of the Human Mind, 1829; a new edition, 1869, with notes illustrative and critical, by Alexander Bain, Andrew Findlater, and George Grote, with additional notes by John Stuart Mill.

The doctrines of James Mill are largely a compound of the doctrines of Hartley and of Hume. *Sensations* are a kind of feeling. Of these there are the ordinary five classes—those of the muscles, of the alimentary canal, and such as attend disorganization. *Ideas* are what remains after the sensations are gone. As we use *sensation* to designate the general faculty of sensations, so we may use *ideation* to designate the faculty or capacity for ideas.

As our sensations occur either in the synchronous or successive order, so our ideas present themselves in either of the two. The preceding is called the suggesting, the succeeding is called the suggested idea. The antecedent may be either a sensation or an idea, the consequent is always an *idea*. The causes of strength in an association are vividness and frequency of repetition. When two ideas are repeated and the association is very strong, the two spring up in such close combination as not to be distinguishable. "Some cases of sensation are analogous. For example, when a wheel, on the seven parts of which the seven prismatic colors are respectively painted, is made to revolve rapidly, it appears not of seven colors, but of one uniform color, white. . . . Ideas, also, which have been so often conjoined that whenever one exists in the mind the others immediately exist along with it, seem to run into one another—to coalesce, as it were, and out of many to form one idea, which idea, however in reality complex,

appears to be no less simple than any one of those of which it is compounded." This is the announcement of the doctrine of "inseparable association" which is claimed to have been originated by James Mill, and which has been applied with such confidence by his son to the solution of so many philosophical problems.

Consciousness is a generic term for all mental states. We feel—we do not also know that we feel; for to feel and to be conscious that I feel expresses the same conception. Consciousness is applied to both sensations and ideas—conception to ideas only—but each is an abstract term for collective states. A general term is "a word calling up an indefinite number of ideas by association." The idea may call up the name, or the name the idea. Resemblance is casually recognized by Mill as that principle of association "which is mainly concerned in classification, and by which we are rendered capable of that mighty operation on which, as its basis, the whole of our intellectual structure is reared." "Similarity, or resemblance, we must regard as an idea familiar and sufficiently understood for the illustration at present required." Under abstraction, the author distinguishes terms as *notative* when they suggest certain sensations only, and *connotative* when they also suggest such clusters of ideas as are associated with these sensations. *Black notes* a sensation, and *connotes* the clusters of ideas, such as are called *man*, *horse*, respectively; when the connotation is dropped, *i.e.*, when the term notes no connotation, we add *ness*, etc., and have black*ness*, bread*th*, etc.

Memory implies an idea called up by a sensation, or an idea representing a sensation called up by an idea. But the calling up the idea is not all. It must be believed to have been witnessed or experienced by myself. This involves two elements—the idea of my present self, *i.e.*, the remembering self, and the idea of my past self, or the remembered self. But the last implies a *belief* in what is remembered. What then is belief? Belief of every kind; *e.g.*, 1. Belief in events, *i.e.*, real existences; 2. Belief in testimony; 3. Belief in the truth of propositions—including belief in cause and effect, *i.e.*, of antecedence and consequence, in substance, and in personal identity—is resolved into some form of inseparable association. The same is true of ratiocination.

In the chapter on Relative Terms the author gives us the elements of his metaphysical theory. To know that we have a sensation is the same as to have the sensation; to know that two sensations are different is the same as to have two sensations in succession; to know that the two are alike is to have two that are very slightly unlike; "for undoubtedly the distinguishing differences and similarities is the same thing; a similarity being nothing but a slight difference." By the relative terms *same*, *different*, *like*, and *unlike*, we name the sensations in pairs. The same is true of ideas. In applying these names, "there is nothing whatsoever but having the sensations, having the ideas, and making marks for them."

Antecedent and consequent are thus applied: When sensation A precedes B we mean that when B is present as a *sensation* A is suggested as an *idea*, and so on through a long series, in the *same order* in which the sensations occurred, the last being a sensation, but the *synchronous* order involves the relations of space. The synchronous order is much more complex than the successive. The successive order is all, as it were, in *one direction*, but the synchronous is in every possible direction. Take a single particle of matter as a centre, and let other particles of matter be aggregated to it in the line of every possible radius. "Every one of the particles in this aggregate has *a certain order*; first with respect to the centre particle, next with respect to every other particle. *This order is also called the position of the particle.*" "As after certain repetitions of a particular sensation of sight, a particular sensation of smell, or a particular sensation of touch, and so on, is received in *a certain order*, I give to the combined ideas of them the name rose, the name apple, the name fire, and the like; in the same manner, after certain repetitions of particular tactual sensations, and particular muscular sensations, received in a certain order, I give to the combined idea of them the name line. But when I have got my idea of a line, I have also got my idea of extension. For what is extension but lines in every direction?—physical lines if real, tactual extension; mathematical lines if mathematical, that is, abstract, extension."

Successions are of two classes—successions which are fortuitous, and successions which are constant. These last are usually known as cause and effect.

Relations of *quantity* are resolved into the different sensations of touch and muscular resistance which we experience in tracing a line, in stopping or continuing the act, etc., etc.; so of a plane, which is made up of lines; so of mass or bulk; so of pressure or resistance and motion.

The relations of *quality* are thus explained: "The qualities of an object are the whole of the object. What is there beside the qualities? In fact, they are convertible terms; the qualities are the object, and the object is the qualities. But then what are the qualities? Why, sensations, with the association of the object or the cause. And what is the association of the object or the cause? Why, the association of other sensations as antecedent."

Infinite space is thus explained: "We know no infinite line, but we know a longer and a longer. A line is lengthened, as number is increased by continual additions, etc." "In the process, then, by which we conceive the increase of a line, the idea of one portion more is continually associated with the preceding length, and to what extent soever it is carried, the association of one portion more is equally close and irresistible. This is what we call the idea of infinite extension, and what some people call the *necessary* idea." The idea of a portion more, adhering by indissoluble association to the idea of every increase in any or in all directions, is the idea of "infinitely extended," and the idea of "infinitely extended," with the connotation dropped, is the idea of Infinite Space."

Of motion we have the following explanation: "The ideas of the sensations on account of which he calls it [the hand] moved are easily raised, easily form themselves into combination, and easily associate themselves with the object, Hand." "When he [one] has become familiar with the application of moved, as a connotative term, to various objects, it is easy in this as in other cases to drop the connotation; and then he has the abstract *motion*."

A desire is the *idea* of a pleasure associated with the future: an aversion, the *idea* of a pain associated with the future. "When a pleasurable sensation is contemplated as future, but not certainly, the state of consciousness is called hope. When a painful sensation is contemplated as future, but not certainly, the state of consciousness is called fear." The causes of sensations can be contemplated as past and future, as truly as the sensations themselves. The idea of a cause of our pleasures enters as a main ingredient into three states of consciousness, viz.: "(1) The mere contemplation of it as a cause, past or future, which is called the AFFECTION; (2) The association of an act of ours as the cause of the cause, which is called the MOTIVE; (3) A readiness to obey this motive, which is called the DISPOSITION."

The *moral sentiments* begin with associating the pleasure to ourselves [or pain] which is connected with certain acts—with the ideas of such acts. To this we add the pleasure [or pain] which comes from being praised by others [or dispraise]. Finally, by a secondary association, we reach the idea of praise and blameworthiness. These last,

in their nature and origin, are strikingly analogous "to the love of posthumous praise and the dread of posthumous blame."

Voluntary states of mind are thus accounted for. Actions are in some instances preceded by mere sensations; in others by ideas. In all cases in which the action is said to be willed, it is desired as a means to an end; "or, in more accurate language, is associated as cause with pleasure as effect." "The power over our associations, when fully analyzed, means nothing more than the power of certain interesting ideas, originating in interesting sensations, and formed into strength by association."

§ 50. Intimately connected with James Mill was Jeremy Bentham, the distinguished advocate of Political and Legal Reform, and the acknowledged founder of the so-called modern Utilitarian school in Ethics. He was born 1747, and died 1832. His system of Morals and Legislation was published in 1780, and Deontology, or the Science of Morality, as arranged from his MSS. by Sir John Bowring, in 1834. The phrase, the Greatest Happiness principle,* originated with Bentham, and was made the foundation of his system.

Bentham defines utility as the tendency of actions to promote the happiness, and to prevent the misery, of the party under consideration, which party is usually the community. The two other principles supposable are *ascetism*, or the approval of an action on account of its tendency to diminish happiness, or, again, *sympathy* and *antipathy*, or the unreasoning approbation and disapprobation of the individual. There are four sanctions that stimulate men to act rightly: *physical*, *political*, *moral*, *i.e.*, public opinion—and *religious*. In estimating actions as right or wrong we should consider *the act*, *the circumstances*, *the intention*, and *the consciousness*. Of *motives* to action, *Benevolence*, or Good-will, taken in a general view, is surest to coincide with utility. Next in order is *Love of Reputation*; next is the desire of *Amity*, or of close personal affections; and next, the *Dictates of Religion*. Ethics is the art of directing men's actions to the production of the greatest possible quantity of happiness, on the part of those whose interest is in view. *Prudence* is the discharge of one's duties to himself. *Probity* and *Beneficence* are the discharge of one's duties to others, in the two forms of forbearing to diminish it and studying to increase it.

Bentham distinguishes actions as *voluntary* and *free*, only so far as these terms are opposed to the compulsion of the law.

John Austin, 1790–1859, published in 1832, "The Province of Jurisprudence Determined," in which he developed and applied the principles of Bentham to the definitions and maxims of that science. The work is esteemed as one of the profoundest treatises in all English literature on the principles of justice and law.

§ 51. John Stuart Mill, born 1806—1873, son of James Mill, distinguished as a publicist and political leader; clerk in the India House, 1823; chief examiner of East India correspondence, 1856; joint editor of the *Westminster Review*, 1835–1840; copious contributor to many journals of articles on political and philosophical topics. Published System of Logic, Ratiocinative and Inductive, being a Connected View of the principles of Evidence and the methods of Scientific Investiga-

* J. S. Mill asserts that he has reason for believing himself to be the first person who brought the word "utilitarian" into use. *Utilitarianism*, chap. II., note.

tion. 2 vols. 8vo, 1843. Eighth edition (1873), First American edition, 1846, 1 vol. 8vo. Essays on some Unsettled Questions of Political Economy, 1844. Principles of Political Economy, with some of their Applications to Social Philosophy, 1848. 2 vols. 8vo. Am. ed., 2 vols. 8vo, 1848. Essay on Liberty, 1859. Considerations on Representative Government. 2d ed., 1861. An Examination of Sir William Hamilton's Philosophy and of the principal Philosophical Questions discussed in his writings, 1865. 3d ed., 1867. Am. ed., 2 vols., 1865. The Subjection of Woman. 2d ed., 1869. Utilitarianism, 1863. Auguste Comte and Positivism. 2d ed., 1867. Am. ed., 1867.

A collection of Dissertations and Discussions was published in 1859, and republished in America with the tract on Utilitarianism and a few additional papers, in 3 volumes, 1864, to which was added a fourth volume of other papers, Boston, 1867.

The works by which J. S. Mill is known as a philosopher are: the System of Logic; the Examination of Sir William Hamilton's Philosophy, and his Editorial corrections and comments on James Mill's Analysis of the Human Mind. The psychological foundation on which he builds is the system of James Mill modified by that of Dr. Thomas Brown. He carefully insists, however, that he neither accepts nor inculcates any system of metaphysics. But the system of metaphysics which he usually applies is substantially that of Hobbes, Hume, and Comte. He does not rigidly adhere, however, either to the psychology or the philosophy which characterize and control his conclusions. He differs from his father in holding the act of belief to be something more than an inseparable association of one object with another (cf. James Mill's Analysis, 2d ed., chap. xi., note); that causation is a term which it is indispensable we should use in our analysis of the conceptions of matter and mind; and that certain axioms are the necessary foundations of mathematical and physical sciences, but are themselves the products of induction (cf. Logic, *passim*).

After a long and laborious analysis, he reaches the conclusion that matter must be defined as "a permanent possibility of sensation," and that "mind is resolved into a series of feelings with a background of possibilities of feeling." He concedes that in adhering to this definition "we are reduced to the alternative of believing that the mind, or ego, is something different from any series of feelings or possibilities of them, or of accepting the paradox that something which, *ex hypothesi*,

is but a series of feelings can be aware of itself as a series." In respect to the belief in the real existence of the external world, he concedes that it cannot be proved philosophically, and can only be justified by the consideration that "the world of possible sensations, succeeding one another according to laws, is as much in other beings as it is in me; it has therefore an existence outside me; it is an external world" (cf. Exam. of Sir W. Hamilton's Philosophy, Chaps. 11, 12, 13.)

§ 51. The System of Logic is the most elaborate treatise in the English language on the theory and methods of Induction. In the illustration of these methods, the author avails himself of a familiar acquaintance with the history of modern discoveries in physics. The Third book, which treats of Induction, is indispensable to every philosophical student of physical science; and the Fourth, on operations subsidiary to Induction, ranks with the Third Book of Locke's Essay for its masterly treatment of Language.

The First Book, on Names and Propositions, gives the author's theory of generalization and classification, and of the concept, and also, notwithstanding his caveat, occasional intimations of his metaphysical system. In Chapter II. of Names, he follows closely the terminology and the doctrines of James Mill's Analysis; in Chapter III., on Things Denoted by Names, he groups all these under five heads: (1) Feelings or states of consciousness. Feeling is generic, including sensation, emotion, and thought—thought and sensation being contrasted as are idea and sensation by James Mill. There is no distinction between sensation and perception, each being properly a state of consciousness; the belief that there is a cause of such states belonging to the higher or transcendental metaphysics; (2) Substances, bodily and mental. Of the first, all we know is the sensations which they give us and the order of the occurrence of these sensations, *i. e.*, it is the hidden cause of our sensations. Of the second, that it is the unknown recipient of them. (3) Attributes, which, so far as matter is concerned, are simply the same as groups of sensations. (4) Relations are attributes "grounded upon some fact into which the object enters jointly with some other object." "There is no part of what the names expressive of the relation imply that is not resolvable into states of consciousness." Relations of resemblance are peculiar. No doubt they are states of consciousness, but whether they are two similar states of consciousness, or involve a third feeling, subsequent to the two which are experienced by the mind, is undetermined. (5) Quantity is a relation of a peculiar kind of likeness or unlikeness which is ultimate, but in the last analysis is a matter of sensations. As the result of this analysis, we have the following four categories:—(1) Feelings or states of consciousness. (2) The minds which experience them. (3) The bodies which excite them, with their qualities, although it is unphilosophical to recognize the latter. (4) The successions and coexistences, the likenesses and unlikenesses between feelings or states of consciousness.

In Chapter V., on the Import of Propositions, he concludes that all possible propositions must assert or deny one of these five, viz.: Existence, coexistence, sequence, causation, resemblance. Causation is subsequently explained by Mill, as uniform antecedence. Book Second is on Reasoning, and first that which is deductive. The conclusions of the author in respect to the functions or logical value of the syllogism are thus

stated: "All inference is from particulars to particulars; general propositions are merely registers of such inferences already made, etc. The major premise of a syllogism, consequently, is a formula of this description, etc., the real logical antecedent or premise being the particular facts from which the general proposition was collected by induction." Chapter V. treats of Necessary Truths. The definitions of geometry do not correspond to anything which we observe in nature, nor to anything which we can conceive in our mind, but to *a part* of what we experience. They are the results of generalization. The same is true of the axioms. "They are experimental truths—generalizations from observation." "The proposition, two straight lines cannot inclose a space, ... is an induction from the evidence of our senses." The same is held to be true of the definitions and axioms of number.

In the Third Book, of Induction, Chap. III., he says: "The proposition that the course of nature is uniform is the fundamental principle or general axiom of induction. It would be a great error to offer this large generalization as any explanation of the inductive process. On the contrary, I hold it to be itself an instance of induction." Chap. III., he gives the reason why, believing with Comte as he does, that "the constant relations of succession or similarity" are all that we know concerning phenomena, he yet uses the term *causation*, which is: That he desires a word to express the *unconditional* relations of succession. In Chapter XXI., he contends that the evidence of universal causation has only been furnished gradually to man, and is the product of the slow growth of human experience. But as this experience is limited in its range, the reasons for relying upon this law "do not hold in circumstances unknown to us and beyond the possible range of our experience. In distant parts of the stellar regions, where the phenomena may be entirely unlike those with which we are acquainted, it would be folly to affirm that this general law prevails," etc., etc.

In Book Sixth, on the Logic of the Moral Sciences, the author expounds his doctrine of Liberty and Necessity, which is: "That the law of causality applies in the same strict sense to human actions as to other phenomena." He distinguishes between the doctrine of Fatalism and that of Necessity thus: Fatalism supposes a desire for a change of character to exist, against which man is impotent to struggle, and which he cannot overcome. Necessity does not conceive such an antagonism to be conceivable or possible, inasmuch as the presence of the desire is one of the conditions which secures its own fulfilment. The existence of such a desire can only be accounted for by the existence of ample precedent occasions. It is not necessary, however, that the motives which immediately determine the action should be the anticipation of pleasure or pain. By the influence of association we form habits, and act from the force of our habit after its original occasion has ceased to exist and to act. "A habit of willing is commonly called a purpose;" and "among the causes of our volitions, and of the actions which flow from them, must be reckoned not only our likings and aversions, but also purposes."

J. S. Mill's Ethical principles may be found in the treatise entitled, "Utilitarianism," and a Review of Dr. Whewell on Moral Philosophy, Discus., Vols. II. III., Am. ed. They do not differ materially from those of James Mill and Bentham. They are presented with great skill and plausibility, and argued at great length against objections.

Happiness, according to him, differs in quality as well as in quantity, and the capacities for its several kinds are higher and lower.

Moral judgments and feelings are the products of association. The innate or ultimate emotion which may be allowed to exist, if there is any, is "that of regard to

the pleasures and pains of others," or "the desire to be in unity with our fellow-creatures." But moral feelings are no less natural if they are acquired. "The utilitarian theory admits the external sanctions to morality, as the hope of favor and the fear of displeasure from our fellow-creatures, or from the Ruler of the universe, along with whatever we may have of sympathy or affection for them, or of love and awe of Him." "The internal sanction of duty is a feeling in our mind, which, when disinterested and connecting itself with the pure idea of duty, is the essence of conscience." This sentiment is, however, of external origin, and a secondary growth from circumstances. In like manner, its transference to the disposition and the feelings, and the recognition of the feelings and character as subject to it are the products of association.

The examination of Sir William Hamilton's Philosophy is important for two reasons: It illustrates the strength and weakness of certain of Mill's own positions and those of Hamilton, and contains important concessions which are fatal to some of his own doctrines. For these other reasons it may be regarded as one of the most valuable and instructive of recent contributions to English Philosophy.

Cf. Mill, Examination, etc., by H. B. Smith, *Am. Theol. Rev.*, 1866, No. 1; also Mr. Mill and His Critics, by Francis Bowen, *Ibid.*, 1869, Nos. 2 and 3; also, The Philosophy of the Conditioned, etc., by H. L. Mansel. An Examination of Mr. John Stuart Mill's Doctrine of Causation in Relation to Moral Freedom, by Patrick P. Alexander, M.A. The Battle of the Two Philosophies, by an Inquirer. An Examination of Mr. J. S. Mill's Philosophy; being a defence of Fundamental Truth, by James McCosh, D.D. Moral Causation, or Notes on Mr. Mill's Notes to the Chapter on Freedom in the Third Edition of his Examination of Sir William Hamilton's Philosophy, by Patrick P. Alexander, M.A. Two Letters on Causation and Freedom in Willing, addressed to John Stuart Mill, etc., etc., by Rowland G. Hazard. Bost., 1869. Exploratio Philosophica, Rough Notes on Modern Intellectual Science, Part I., by John Grote. Camb., 1865. An Examination of the Utilitarian Philosophy, by the late John Grote, B.D., etc., etc. Camb., 1870. Four Phases of Morals: Socrates, Aristotle, Christianity, Utilitarianism. By John Stuart Blackie. Edin., 1871. New York, 1872.

§ 52. Alexander Bain, Professor of the University of Aberdeen, published The Senses and the Intellect, 1854, 2d ed. 1864; The Emotions and the Will, 2d ed. 1865; also Mental and Moral Science, a Compendium of Psychology and Ethics, Lond., 1868; New York, 2 vols. Logic, Deductive and Inductive, 2 parts, Lond. 1870, N. Y.

These treatises are an elaborate re-treatment of the mental phenomena on the theory of Hartley and James Mill, with this difference, that Bain makes much of the discoveries and analyses of modern Physiology, and applies them with great skill in the analysis of all the phenomena of sense and perception. He does not deny the existence of a spiritual principle in man independently of a cerebral organization, nor does he positively affirm it. He concedes that the peculiarity of the intellectual functions consists in its capacity for ideas and for the experiences of discrimination and of similarity, but in the explanation of psychical experiences he professedly and in fact avails himself of the power of association alone. Though not an avowed Materialist, his explanations all rest upon materialistic analogies. Though not by avowal exclusively an

Associationalist, he accepts and propounds no solution from any other power or law in man.

"There is no possible knowledge of the external world except in reference to our minds. Knowledge means a state of mind; the notion of material things is a mental thing. We are incapable of discussing the existence of an independent material world; the very act is a contradiction." "Solidity, extension and space—the foundation proper of the material world—mean certain movements and energies of our own body, and exist in our minds in the shape of feelings of force allied with visible and tactile and other sensible impressions. The sense of the external is the consciousness of particular energies and activities of our own." "Belief in external reality is the anticipation of a given effect to a given antecedent, and the effects and causes are our own various sensations and movements."

"The collective 'I' or 'Self' can be nothing different from the Feelings, Actions and Intelligence of the individual; unless, indeed, the threefold classification of the mind be incomplete. But so long as human conduct can be accounted for by assigning certain sensibilities to pleasure and pain, an active machinery, and an Intelligence, we need not assume anything else to make up the 'I' or 'Self.' When 'I' walk the fields, there is nothing but a certain motive, founded in my feelings, operating upon my active organs; the sequence of these two portions of self gives the whole fact."

Belief is thus analyzed: "(1) The mental state termed Belief, while involving the intellect and feelings, is in its essential import related to activity or the will." "(2) The second source of Belief is Intellectual Association." "(3) The third source or foundation of Belief is the Feelings."

The Will, according to Bain, is a collective term for all the impulses to motion or action. It is absurd to ask whether such a power is free.

"The peculiarity of the moral sentiment or conscience is identified with our education under government or authority." Remorse and self-approbation are by association transferred from the experience of the punishment and reward which accompany actions, to the corresponding dispositions or wishes within. The reasons given are: "1. It is a fact that human beings living in society are placed under discipline accompanied by punishment. 2. When moral training is omitted or greatly neglected, there is an absence of security for virtuous conduct. 3. Whenever an action is associated with disapprobation and punishment, there grows up, in reference to it, a state of mind undistinguishable from moral sentiment."

§ 53. Herbert Spencer, born 1820, began life as an essayist and writer for journals, but of late has given himself to the work of constructing a General System of Philosophy. He first published Social Statics, Lond., 1850; Am. Edition 1865. In 1855, Principles of Psychology; Am. edition, enlarged and rewritten, vol. I., in parts, 1869–70–71–72; Vol. II., 1873; Essays Scientific and Speculative, First Series 1857; Second Series, 1863—published in America with a different arrangement, as Illustrations of Universal Progress, 1864; Essays, Moral, Political and Æsthetic, 1865; also in America, 1861, Education: Intellectual, Moral and Physical. "The System of Philosophy," which in 1860 he announced his intention to complete, in-

cludes the following subjects: (1.) First Principles; (2.) Principles of Biology; (3.) Principles of Psychology; (4.) Principles of Sociology; (5.) Principles of Morality. The works published in the prosecution of this plan are: I. First Principles of a New System of Philosophy, Lond., issued in parts, 1860–61–62, and New York 1864; 2d ed., rewritten in part, 1867; New York, 1872. II. Principles of Biology, 2 vols., issued in parts; New York, Vol. I., 1866; Vol. II., 1867. III. Principles of Psychology (rewritten), Vol. I., New York, 1872; Vol. II., 1873. In 1864 Spencer published The Classification of the Sciences, in which he explains the relations of his system to that of A. Comte.

The starting-point and the characteristic of Spencer's system is the doctrine of evolution. Though accepting the associational psychology, he has not limited himself to its principles, but has sought to apply the broader law, of which he conceives association to be but a special example, to the explanation of the existence of all types of being, whether material or spiritual, of the activities of all, as well as of the relations necessary to the knowledge of all and of any. Association is development, but association is not the whole of development; hence the transition from the one to the other. "The truth which Harvey's embryological inquiries first dimly indicated, which was more clearly indicated by Wolff and Goethe, and which was put into a definite shape by Von Baer,—the truth that all organic development is a change from homogeneity to heterogeneity,—this it is from which very many of the conclusions which I now hold have indirectly resulted." This law of evolution, although assumed as universal, is not, however, self-evident. It is accepted as a principle only because it receives such ample and varied verification from experience. Moreover, the belief in it is itself a product of the law itself, as are all the other necessary axioms of science, including the belief in time and space. 'These all have arisen from the organized and consolidated experiences of all antecedent individuals who bequeathed their slowly-developed nervous organizations, till they practically became forms of thought apparently independent of experience.' The question whether they are more than subjective forms of thought—whether they have objective reality—is answered thus: They exist as states of consciousness perpetually recurring or constantly persistent, and this is what we mean by reality. Sometimes other language is used, viz., that of common life; *i.e.* they are spoken of as the products of area clause.

As to what matter and mind are, he replies sometimes that we can know it, because a being is required to manifest phenomena, sometimes because persistence in consciousness supposes correspondence in permanent forces, sometimes because the two conceptions are the same, sometimes that matter and mind are simply bundles or series of phenomena, and nothing besides. Sometimes he reasons as though causality were a direct and self-evident relation, and sometimes as though this relation were nothing more than an order of sensations, and our belief in it were the growth of inseparable associations.

The persistence of force is assumed to be a universal and necessary axiom, but it is applied indiscriminately to the persistence of phenomenal force, of which the quantum is assumed to be necessarily the same, and to the unknown and unknowable being or

force which is behind all phenomena. That there is such a being or something is evident from the result of the generalizations which are necessary to science. Science and religion, so far from being hostile, are at one in that they both assume *a one—a cause—a permanent, all-pervading force.* But revealed religion or scientific theology is impossible, because, under the law of evolution and development, there must be endless change and variation in the conceptions of men concerning this entity which their *unformulated* consciousness requires them to believe, but which the *formulating* consciousness of each generation must formulate differently.

By the same rule, it would seem that philosophy itself, or a formulated consciousness of the nature of this force, in terms of its necessary relations to the phenomenal, is equally impossible, inasmuch as metaphysics, *i.e.*, first principles of a system of philosophy and—"the consciousness of a universal causal agency which cannot be conceived"—are the gradual but certain growth of the assimulated groups of different concrete and individual causal agencies. As these groups coalesce, there is a concomitant loss of individual distinctness. As soon as universality is reached, all distinctness of conception vanishes, and we know a universal, unknowable, and unthinkable cause. Likewise, "when the theological idea of the providential action of our being is developed to its ultimate form by the absorption of all independent secondary agencies, it becomes the conception of being immanent in all phenomena; and the reduction to this state implies the fading away in thought of all those anthropomorphic attributes by which the aboriginal idea was distinguished." "The consciousness of a single source, which, in coming to be regarded as universal, ceases to be regarded as conceivable, differs in nothing but name from the consciousness of one being, manifested in all phenomena."

"The object of religious sentiment will ever continue to be—that which it has ever been—the unknown source of things; while the *forms* under which men are conscious of the unknown source of things may fade away, the *substance* of the consciousness is permanent. Beginning with causal agents, conceived as imperfectly known; progressing to causal agents conceived as less known and less knowable; and coming at last to a universal causal agent posited as not to be known at all; the religious sentiment must ever continue to occupy itself with this universal causal agent. Having in the course of evolution come to have for its object of contemplation the Infinite Unknowable, the religious sentiment can never again (unless by retrogression) take a finite knowable, like Humanity, for its object of contemplation."

Ethical truths and sentiments are thus accounted for: 'The experiences of utility, organized and consolidated through all past generations of the human race, have been producing corresponding nervous modifications, which, by continued transmission and accumulation, have become in us certain faculties of moral intuition—certain emotions responding to right and wrong conduct which have no apparent basis in the individual experiences of utility." *

* The system of Spencer is still under criticism, and perhaps may not have been fully expounded by its author. Possibly it has not yet been completely developed. Should Spencer continue to devote to philosophy his active energies for many years, it is not inconceivable that new associations may take possession of that physiological organization which he is accustomed to call himself, and perhaps be evolved into another system of first principles which may displace those which he has taught hitherto.

CHAPTER IX.—Influence of the Later German Philosophy. Recent Works and Writers of all Schools.

§ 54. The writings of Kant were first introduced to the knowledge of the English people about the end of the eighteenth century. The Latin translation of the Critic of Pure Reason had been accessible from the first. In 1796 Dr. F. A. Nitszch prepared and published a General and Introductory View of Professor Kant's Principles concerning Man, the World, and the Deity, submitted to the consideration of the Learned. In 1798 Dr. A. F. M. Willich published Elements of the Critical Philosophy. Dr. Thomas Brown furnished an article on the Philosophy of Kant in the second number of the Edinburgh Review, 1803. Thomas Wirgman—esteemed a lunatic by some—wrote several elaborate articles on the Kantian Philosophy in the Encyclopedia Londinensis, and published the following works: Science of Philosophy, Essay on Man, Principles of the Kantesian or Transcendental Philosophy, 1824; Divarication of the New Testament into Doctrine, The Word of God, and History, The Word of Man. Dugald Stewart bestows a few occasional criticisms on Kant's philosophy in his Dissertation, Parts 1 and 2, 1815 and 1821.

In 1836 J. W. Semple, Advocate, published in Edinburgh a translation of The Metaphysic of Ethics, with an Introduction, giving an outline of the Critic of Pure Reason; and in 1838, Religion within the Bounds of Pure Reason.

In 1844 F. Haywood, Esq., published Analysis of Kant's Critic of Pure Reason, etc., etc.

Prof. J. P. Mahaffy has published (incomplete as yet) Kant's Critical Philosophy for English Readers. Lond., 1871–2–3.

The late Samuel Taylor Coleridge, 1772–1834, exerted a very efficient influence in attracting the attention of the English public to the modern German speculations and their authors. In 1798 he went to Germany to reside, where he studied the Philosophy of Kant. In 1817 he published Biographia Literaria, in which are some fragmentary attempts to exhibit some phases of the philosophy taught by Schelling. In 1825 he published Aids to Reflection, in the text and notes of which he uttered many earnest protests against the current philosophy in England, and insisted on the distinction between the Reason and the Understanding, more, however, in the sense of Jacobi than of Kant. In nearly all his prose writings he took an attitude of

contemptuous hostility towards the philosophical writers of his time, and aroused a belief in and a longing for what were supposed to be the profounder and more elevated views of the great German masters of speculation, as well as directed the attention backward to the English writers of the days of Elizabeth and of James. The slowly awakening, but intensely glowing, interest in all branches of German literature, which was fostered by translations from German literature, and criticisms on the same by Walter Scott and others—pre-eminently by Thomas Carlyle, E. Bulwer Lytton, Thomas De Quincey—the residence in Germany, for study, of an increasing number of English youth, and the gradual awakening of the English people to the conviction that in many of the most important departments of science and literature they were outstripped by the Germans—prepared the minds of many to listen with attention and respect to the teachings of German philosophers. As a consequence, many of the works of Kant and Fichte have been translated into English with more or less success; and a very large number of English philosophers have become familiar with the works of all those Germans who have attracted general attention. Sir William Hamilton was greatly influenced by Kant and Jacobi. Dean Mansel was in many points a literal follower of Kant. Even the Associational school has been forced to look over the limits within which it would be inclined to content itself, and to recognize the profounder questions which have been discussed by the Germans, and the wider range of thought into which they have entered. The influence of Coleridge and the Kantian writers is discernible very frequently in the selection and treatment of topics by John Stuart Mill and Herbert Spencer. J. D. Morell, originally an intuitionalist of the Scottish or Kantian school, has adopted in part the profounder and more metaphysical Associationalism of the German J. F. Herbart, which have been expounded in "*An Introduction to Mental Philosophy on the Inductive Method.*" Lond., 1862.

The Eclectic philosophy of the late Victor Cousin and his disciples has also exerted an important influence upon English speculation. The Scottish school had originally exerted a powerful influence upon the new direction which French speculation had begun to take in the lectures of Royer Collard, who was an admirer and pupil of Dugald Stewart. Maine de Biran, though more independent in his speculations, had contributed an additional impulse to the emancipation from the traditions of Condillac, which was initiated by Collard. Monsieur

P. Prévost, of Geneva, was friend and correspondent of Dugald Stewart, and followed him very closely in his philosophy. Theodore Jouffroy subsequently translated all the works of Reid. The critical lectures of Cousin upon Locke had extorted admiration from Hamilton, while his doctrine of the Unconditioned had, in part, provoked Hamilton's first critical essay. The influence of Cousin lent its aid to that of the new German philosophy in arousing the attention of separate thinkers in Great Britain to look beyond their traditionary authorities, and to enlarge the sphere of their own speculations.

As a consequence of these combined influences, many, if not the most, of the present English writers show the influence of the continental philosophy. The treatises, essays, and critical articles published within the last twenty years, discuss with more or less ability the distinctive principles of all the leading writers. Among the writers who have attracted more or less public attention since the new movement began, the following deserve notice:

§ 55. Thomas Chalmers, D.D., LL.D., 1780–1847; Un. of St. Andrews. Pastor at Kilmany, at Glasgow in 1824; Prof. of Moral Philosophy at St. Andrews, 1828; Prof. of Theology at Edinburgh, resigned in 1843; elected Prof. of Theology in New College. Published, in Philosophy, Bridgewater Treatise, Lectures on Natural Theology, The Christian Evidences, Moral Philosophy, and Political Economy.

Dr. Chalmers was animated with the genuine philosophical spirit, and infused into his theological teachings the spirit of independent scientific freedom and thoroughness. Butler and Leibnitz were his favorite authors. Of Butler he says, "I have derived greater aid from the views of Bp. Butler than I have been able to find besides in the whole range of our extant authorship."—Pref. to Bridgewater Treatise. Chalmers was by no means vigorous or coherent in his Philosophy or his Theology, but his eloquence and boldness contributed greatly to that interest in philosophical inquiries which was rekindled and promoted in Scotland by Hamilton, Ferrier, and Kant.

Isaac Taylor, 1787–1865, published many articles of a critical character in the *Eclectic Review*, also the following among many works, chiefly in the department of the philosophical history of religion: Elements of Thought, Lond., 1823; many editions; Physical Theory of Another Life, Lond., 1836; Essay Introductory to Edwards on the Freedom of the Will – On the Application of Abstract Reasoning to Christian Doctrine. The World of Mind, N. Y., 1858. Logic in Theology, etc., Lond., 1859.

Isaac Taylor was animated by a genuine philosophical spirit, and in his essay on Edwards discussed with great ability the reach and limits of Philosophy as applied to Christian Theology.

Richard Whately, D.D., 1787–1863. Student and Fellow of Oriel Coll., Oxford, Prof. of Pol. Econ.; Archbishop of Dublin. Published Elements of Logic, 1826, numerous editions; which did more than any book of its day to revive and make practical the study of logic in the universities and elsewhere. (Cf. Sir William Hamilton's Lectures on Logic, P.; also *Ed. Rev.*, No. 57.) Easy Lessons in Reasoning, 1843; many editions. Introductory Lessons on Morals, 1860; do. on Mind, 1859; Bacon's Essays, with Annotations, 1856; many editions; Paley's Moral Philosophy, with Annotations, 1859; with numerous other works. Whately rendered the most important service to free thought in his generation, and contributed largely in ways direct and indirect to the promotion of speculative activity.

Renn Dickson Hampden, D.D. Entered Oriel College, Oxford, 1810; afterwards Fellow and Tutor; Principal of St. Mary's Hall, 1833; White's Prof. of Mor. Phil., 1834; Regius Prof. of Div., 1836; Bp. of Hereford, 1847. He published The Scholastic Philosophy in its Relation to Christian Theology, Oxford, 1833. Philosophical Evidence of Christianity, 1827; Lectures on Moral Philosophy; also, articles on Socrates, Plato, and Aristotle, in the Encyclopedia Britannica; also, on Thomas Aquinas and the Scholastic Philosophy, in the Encyclopedia Metropolitana.

The lectures on the Scholastic Philosophy attracted universal attention, and occasioned a heated controversy and the publication of many pamphlets.

William Whewell, 1795–1866. Trinity College, Cambridge, 1816; Fellow, Tutor, Professor, etc.; Master of Trinity from 1841 till his death. He was eminent as a mathematician and physicist. His contributions to ethics and philosophy are the following: Four Sermons on the Foundations of Morals, 1837; Am. ed., 1839. History of the Inductive Sciences, etc., 1837, 3 vols.; Am. ed., 1858, 2 vols. In German, translated by Littrow, 1839–42. The Philosophy of the Inductive Sciences, etc., 1840. Republished, 3d ed., 1858, with large additions, in 4 parts, viz.: (1.) History of Scientific Ideas. (2.) Novum Organum Renovatum. (3.) On the Philosophy of Discovery. (4.) Indications of the Creator; the last published separately, 1846. Elements of Morality, including Polity, 1845; N. Y., 1845. Lectures on Systematic Morality. Lond., 1846. Lectures on the History of Moral Philosophy in England. Lond., 1852; new ed. with 14 additional lectures, 1862. The Platonic Dialogues for English Readers. 3 vols. Lond., 1859–60–61. Mr. Whewell, in his Philosophy of the Inductive Sciences, adopts the conceptions and terminology of the Kantian school, and seeks to apply them with rigor to physical philosophy. He has met with a sharp critic in Sir J. F. W. Herschell. Whewell's Treatise is frequently referred to and criticised in J. S. Mill's System of Logic.

Joseph Henry Green, M.D., F.R.S., D.C.L., 1791–1863, was the warm friend as well as ardent admirer and literary executor of Mr. S. T. Coleridge. After his death was published: Spiritual Philosophy; founded on the Teaching of the late Samuel Taylor Coleridge. Lond. and Camb., 1865.

This work contains the fullest and best authorized exposition of Mr. Coleridge's philosophical and theological views, in addition to the fragments which are to be found in Mr. Coleridge's own writings. Mr. Green published in his lifetime: Vital Dynamics, Lond., 1840; and Mental Dynamics, Lond., 1847. These works remind us of

Dr. J. Garth Wilkinson, b. 1812, the philosophical expounder of Swedenborg's System. Outlines of a Philosophical Argument on the Infinite and Final Cause of Creation. 1847. The Human Body and its Connection with Man. 1851.

Frances Power Cobbe. Intuitional Morals, in two parts. Lond., 1855; Boston, P. i., 1859. A work conceived entirely in the spirit of the Kantian ethics. Darwinism in Morals, etc. Lond., 1872.

Francis W. Newman, b. 1805: Worcester Col., Oxford, 1826. The Soul, Her Sorrows and Aspirations, etc., etc. 1849. Phases of Faith, etc. 1850. Theism, Doctrinal and Practical. 1858. In these and other writings, the author shows the influence of the Kantian philosophy on his conclusions in respect to the possibility and need of a revelation.

William Thomson, D.D., b. 1819. Scholar, Fellow, Tutor, and Provost of Queen's

College, Oxford; Bp. of Gloucester and Bristol, 1861; Archbp. of York, 1862. A Disciple of Hamilton. An Outline of the Necessary Laws of Thought. A Treatise of Pure and Applied Logic. Lond., 1842. Limits of Philosophical Inquiry. 1869.

Augustus de Morgan, 1806, Prof. of Mathematics in the University College, London University. Formal Logic, n. e. 1853, a work of great acuteness.

Henry Calderwood, b. 1830. Professor of Moral Philosophy in Edinburgh. The Philosophy of the Infinite; with Special Reference to the Theories of Sir William Hamilton. Edin., 1854; second edition greatly enlarged under the title, Philosophy of the Infinite. A Treatise on Man's Knowledge of the Infinite Being, in answer to Sir William Hamilton and Dr. Mansel. 1861. Handbook of Moral Philosophy. 1872.

Alexander C. Fraser. Professor of Logic and Met. in Univ. of Edinburgh. Essays in Philosophy. 1856. Rational Philosophy in History and System. 1858. Life and Works of Bp. George Berkeley, 4 vols. 1872. Professor Fraser is strongly Berkeleian in his philosophical sympathies.

John Cairns, D.D. Article on Kant in the Ency. Brit., 8th edition. Examination of Professor Ferrier's Theory of Knowing and Being. 1856. The Scottish Philosophy Vindicated. 1856, etc., etc.

James McCosh, D.D., Professor of Logic and Metaphysics in Queen's College, Belfast; President College of New Jersey, 1869. The Method of the Divine Government, Physical and Moral, ed. 1850; Typical Forms and Special Ends in Creation, with George Dickie, 1856. Intuitions of the Mind Inductively Investigated, 1860; new and revised edition, 1866. An Examination of Mr. J. S. Mill's Philosophy, being a Defence of Fundamental Truth, 1866. The Supernatural in Relation to the Natural, 1862. The Laws of Discursive Thought; a Text-book of Formal Logic, 1870.

Dr. McCosh is the avowed and able critic of Hamilton and Kant on the one hand, and of Mill and Herbert Spencer on the other. He claims also to have introduced some important additions into Formal Logic.

James Martineau, Professor in Owen's College, Manchester, has contributed to various reviews and periodicals many brilliant and able papers against the Positive and Associational school. These have been published in America in two volumes, under the title of Essays Philosophical and Theological, Boston, 1866, '68; the two volumes published comprising chiefly those that are philosophical.

Thomas E. Webb. The Intellectualism of Locke. Dublin: W. McGee & Co., 1857. A very able and ingenious defence of Locke against the charge of empiricism.

James Hutchinson Stirling is the ardent devotee and confident expounder of the Hegelian Philosophy to the English mind. He has published The Secret of Hegel: being the Hegelian System in Origin, Principle, Form, and Matter; London, 1865, 2 vols. Sir William Hamilton, being the Philosophy of Perception, 1865. A Handbook of the History of Philosophy, by Dr. Albert Schwegler, translated and annotated, 1867, 2d ed. As Regards Protoplasm, in Relation to Professor Huxley's Essay on the Physical Basis of Life, Edinb., 1869; new and improved edition, Lond., 1872. Materialism in Relation to the Study of Medicine. Lectures on the Philosophy of Law, 1872.

John Grote, B.D., Prof. Mor. Phil., Un. of Camb., 1855, d. 1866. Exploratio Philosophica: Rough Notes on Modern Intellectual Science, Part I., Camb., 1865, contains critical discussions on special subjects, and on the doctrines of Prof. Ferrier, Sir William Hamilton, Mr. John Stuart Mill, and Dr. W. Whewell. An Examination of the Utilitarian Philosophy, edited by Joseph B. Mayer, Camb., 1870. The writings of Professor Grote are singularly comprehensive, candid, and truth-loving.

J. P. Mahaffy. Kant's Critical Philosophy for English Readers, vol. i., p. 1. A Critical Commentary on Kant's Æsthetic, vol. i., p. 2. The Deduction and Schematism of the Categories, vol. iii. Kant's Prolegomena to any Future Metaphysic, Lond., 1871–2.

William Graham. Idealism: An Essay, Metaphysical and Critical, Lond., 1872.

John Young, LL.D., published The Christ of History, London, 1855; New York, 1856. Evil and Good; The Mystery. Lond. 1856, 2d Am. ed., New York, 1858. The Province of Reason, a Criticism of H. L. Mansel and Bampton Lecture "On the Limits of Religious Thought," Lond., 1860. The Creator and the Creation; How Related. Lond., 1870.

Mr. Young discusses with great ability those philosophical questions which have an immediate and fundamental relation to theology.

George Ramsay. Enquiry into the Principles of Human Happiness and Human Duty, 1843. Classification of the Sciences, 1847. Analysis and Theory of the Emotions, 1848. Introduction to Mental Philosophy, 1853. In part second is contained a Particular Inquiry into the Nature and Value of the Syllogism. Principles of Psychology, 1857. Instinct and Reason, 1862. Ingenious and Independent.

Sir B. C. Brodie. Psychological Inquiries, etc. Part I., 2d edition, Lond., 1855. Part II., Lond., 1862.

Sir Henry Holland. Chapters on Mental Physiology. 2d edition, Lond., 1858.

The works of both these writers are valuable contributions from the Physiological standpoint.

Hughes Fraser Halle. Exact Philosophy, Parts First and Second. London, 1848. A fearless critic on some English disciples of Comte.

A. S. Farrar. Critical History of Free Thought in Reference to the Christian Religion. London, 1863.

Samuel Bailey, b. 1787. Review of Berkeley's Theory of Vision, 1841. Theory of Reasoning, 1852. Letters on the Philosophy of the Human Mind. First Series, 1855, Second Series, 1858.

Robert Anchor Thompson. Christian Theism. 1st Burnett Prize Essay. Lond., 1855; New York, 1855.

John Tulloch, D.D., b. 1823. Theism. 2d Burnett Prize Essay. Lond., 1855; New York, 1855.

Both these treatises discuss many philosophical questions.

P. E. Dove. The Logic of the Christian Faith, being a Dissertation on Scepticism, Pantheism, etc. Edin., 1856.

Prof. Baden Powell. The Unity of Worlds and of Nature. 2d edition, Lond., 1857.

Sir Alexander Grant. The Ethics of Aristotle. Lond., 1857-8.

G. Boole. An Investigation of the Laws of Thought, etc. Lond., 1854.

Alexander Smith. Philosophy of Morals. 2 vols., 1841.

Samuel Spalding. Philosophy of Christian Morals. Lond., 1843.

B. H. Smart. Outlines of Sematology, 1844. Sequel to Sematology, 1844. Way out of Metaphysics, 1844. Beginnings of a New School of Metaphysics. Lond., 1853. Essay on Thought and Language. Lond., 1855.

Frederick Denison Maurice, 1805–1872. Formerly Professor of Eng. Lit. and Mod. Hist. in King's College; Prof. Mor. Phil., Un. Camb., 1866. Published History of Philosophy under the following divisions:—1. Systems of Philosophy Anterior to the Time of Christ, 1850. 2. Philosophy of the First Six Centuries, 1853. 3. Mediæval Philosophy from the Sixth to Twelfth Century. 4. Philosophy of the Present Day. Rewritten and published as a whole under the title Ancient and Modern Philosophy,

3 vols., 1871. What is Revelation? etc., a Letter to Dr. H. L. Mansel. The Conscience. Lectures on Casuistry, delivered in the University of Cambridge, 1868. Social Morality. Twenty-one Lectures delivered in the University of Cambridge, 1869.

William Smith, 1871. Discourse on the Ethics of the School of Paley, 1839. Thorndale; or, The Conflict of Opinions, 1857. Gravenhurst; or, Thoughts on Good and Evil, 1862. These works are eminently thoughtful in sentiment and beautiful for illustration and diction.

W. Adam. An Inquiry into the Theory of History, Chance, Law, Will, with special reference to the Principles of the Positive Philosophy. Lond., Allen, 1863.

E. V. Neale. The Analogy of Thought and Nature Investigated. Lond., Williams, 1863.

D. Rowland. Laws of Nature the Foundation of Morals. Lond., Murray, 1864.

G. H. Lewes. Biographical History of Philosophy. 4 vols., 1847. 1 vol. rewritten 1857, enlarged. The History of Philosophy from Thales to Comte. 2 vols., 8vo. Aristotle: A Chapter from the History of Science. London, Smith, 1864.

C. Thomas. The Confirmation of the Material by the Spiritual. Lond., Ellis, 1864.

R. Lowndes. An Introduction to the Philosophy of Primary Beliefs. Lond., Williams, 1865.

T. Hughes. The Ideal Theory of Berkeley and the Real World. Free Thoughts on Berkeley, Idealism, and Metaphysics. Lond., Hamilton, 1865.

D. Masson. Recent British Philosophy: A Review, with Criticisms. 1865.

P. P. Alexander. Mill and Carlyle. An Examination of Mr. J. Stuart Mill's Doctrine of Causation in Relation to Moral Freedom, etc., etc. Lond., Nimmo, 1864.

T. Collyns Symon. The Nature and Elements of the External World; or, Universal Immaterialism. Lond., 1862. For criticisms and replies on this volume see Fichte and Ulrici's Zeitschrift, etc., Bd. 55 and 56; Phil. Monats-H. Hefte. Bd. 5 and 6. Hamilton *versus* Mill: A Thorough Discussion of each chapter in J. S. Mill's Examination of Hamilton's Logic and Philosophy, beginning with the Logic. Three Parts. Lond., Simpkins, 1866 and 1868.

H. Travis. Moral Freedom reconciled with Causation, by the Analysis of the Process of Self-determination. Lond., Longmans, 1865.

F. Wilson. The Philosophy of Classification, etc., etc. Lond., Pitman, 1866.

W. A. Butler. Lectures on the History of Ancient Philosophy. 2 vols., Lond., Macmillan, 1866.

S. S. Laurie. The Philosophy of Ethics. An Analytical Essay. Lond., Hamilton, 1866. Notes Expository and Critical on certain British Theories of Morals. Lond. and Edin., Edmonston, 1868.

W. Milroy. The Conscience. Lond., Gardner, 1866.

J. Venn. The Logic of Chance, etc., etc. Lond., Macmillan, 1866.

John Hunt. Essay on Pantheism. Lond., 1867.

Argyll, The Duke of. The Reign of Law. Lond., Strahan, 1867.

M. P. W. Bolton. The Scoto-Oxonian Theory, with Replies to Objectors. London, Chapman, 1867. New edition, 1869. Inquisitio Philosophica, being an Examination of the Principles of Kant and Hamilton. Lond., Chapman, 1869.

J. G. Smith. Faith and Philosophy. Essays on some of the Tendencies of the Day. Lond., Longmans, 1866.

W. Fleming. A Manual of Moral Philosophy, with Quotations and References, for the Use of Students. Lond., Murray. 1867. Vocabulary of Philosophy, Mental and Moral. Lond., 1856. Republished, enlarged, etc., by C. P. Krauth. Phil., 1860.

C. Bray. Education of the Feelings and Affections. 3d ed. Lond., Longmans, 1867. A Manual of Anthropology; or, Science of Man, based on Modern Research. Lond., Longmans, 1871.

C. St. Wake. Chapters on Man, embracing (inter alia) the Outlines of a Science of Comparative Psychology, etc. Lond., Trübner, 1868.

J. G. Macvicar. A Sketch of a Philosophy, Part I. Part II., Matter and Molecular Morphology, the Elemental Synthesis. Lond., Williams, 1868.

C. F. Winslow. Force and Nature, Attraction and Repulsion, etc., etc. Lond., Macmillan, 1869.

T. Laycock. Mind and Brain; or, the Correlations of Consciousness and Organization. Second ed., 1869.

J. Haig. The Science of Truth. Lond. Symbolism of Mind and Matter. Lond., Blackwood, 1869.

J. J. Murphy. Habits and Intelligence in their Connexion with the Laws of Matter and Force. 2 vols., Lond., Macmillan, 1869. The Scientific Bases of Faith. London, Macmillan, 1872.

S. S. Hennel. Comparative Metaphysics, etc. Lond., Trübner, 1870.

W. E. H. Lecky. History of the Rise and Influence of the Spirit of Rationalism in Europe. 2 vols., Lond., 1865. History of European Morals from Augustus to Charlemagne. 2d ed., Lond., 1869.

R. Willis. Benèdict de Spinoza: his Ethics, Life, Letters, and Influence on Modern Religious Thought. Lond., Trübner, 1870.

T. Doubleday. Matter for Materialists, etc. Lond., Longmans, 1870.

G. Grote. Plato's Doctrine on the Rotation of the Earth, and Aristotle's Comment upon that Doctrine. Lond., 1860. Plato and other Companions of Socrates. 3 vols., 2d ed., Lond., Murray, 1870. Aristotle, edited by A. Bates and G. C. Robertson. 2 vols., ibid., 1872.

S. A. Hodgson. Time and Space. Lond., 1865. The Theory of Practice; an Ethical Enquiry. 2 vols., Lond., Longmans, 1870.

C. O. G. Napier. The Book of Nature and the Book of Man. Lond., Hotten, 1870.

T. S. Barrett. Examination of the *à priori* Argument. Lond., Provost, 1872. Philosophy of Science. Ibid., 1872. An Inquiry into the Nature of Causation. Ibid., 1871.

A. E. Finch. On the Inductive Philosophy, including a Parallel between Lord Bacon and Comte, as Inductive Philosophers. Longmans, 1872.

J. Lorimer. The Institutes of Law: An Inquiry as to the Principles of Jurisprudence as determined by Nature. Edin., Clark, 1872.

W. H. S. Monck. Space and Vision. Lond., 1872.

H. Maudsley. Body and Mind, etc. Lond., Macmillan, 1871.

T. H. Huxley. Origin of Species. N. Y., 1863. Man's Place in Nature. N. Y., 1863. Lay Sermons, Addresses and Reviews. N. Y., 1871. More Criticisms on Darwin, etc., etc. N. Y., 1872.

J. Tyndall. Fragments of Science. N. Y., 1871.

B. Jowett. Plato's Dialogues. Translated into English, with Analyses. 4 vols., Lond., 1871.

Charles Darwin. The Origin of Species, 1859. The Descent of Man, and Selection in Relation to Sex. Murray, 1871.

J. Rowland. An Essay intended to Interpret and Develop Unsolved Ethical Questions in Kant's Groundwork of the Metaphysics of Ethics. Lond., Longmans, 1871.

J. S. Blackie. Four Phases of Morals; Socrates, Aristotle, Christianity, and Utilitarianism. Lond., Edmonston, 1871.

E. B. Tylor. Early History of Mankind. 2d ed., Lond., 1870. Primitive Culture. Researches into the Development of Mythology, Philosophy, Religion, Art, and Culture. 2 vols., Lond., Murray, 1871.

L. Beale. The Mystery of Life, etc. Lond., Churchill, 1871. Life Theories and Religious Thought. Ibid., 1871.

W. Markley. Elements of Law, considered with Reference to Principles of General Jurisprudence. Lond., Macmillan, 1871.

C. Morel. Authority and Conscience. Lond., Longmans, 1871.

J. H. Newman. An Essay in Aid of a Grammar of Assent. 3d. ed., Lond., Burns, Oates & Co., 1870.

J. Allanson Picton. The Mystery of Matter and other Essays. Lond., 1873.

CHAPTER X.—PHILOSOPHY IN AMERICA.

§ 56. PHILOSOPHY in America, as in England, has been prosecuted chiefly as an applied science, and in its special relations to Morals, Politics, and Theology. It should be remembered, however, that the spirit which formed American culture and civilization was from the first more or less free from ecclesiastical and scholastic traditions, and that this spirit would naturally manifest itself in every form of independent philosophical investigation. Not a few of the influential minds among the early planters of the American colonies were men of decided speculative tastes, who were familiar with the abstract philosophy of their times, and were prepared to apply it with boldness to every description of human faiths and institutions. As the country became more cultivated its studious men became more and more conscious of this vocation. The circumstances which led some of the colonies to assert political independence also compelled the leaders of opinion to fall back upon the fundamental principles of political and ethical science for guidance and inspiration. The ecclesiastical and religious associations of the majority of the people were originally favorable to the development of a philosophical theology. It is not surprising, therefore, that religious zeal has been associated with a pronounced taste for metaphysical speculation, and has to a considerable extent stimulated and fostered such a taste. The logical habit of the people in following data to their inevitable conclusions has insensibly led the thinkers and scholars of America to cherish a taste for pure science, and to believe in the possibility of reaching the truth, and the duty of acknowledging its authority as supreme. As a necessary result, speculative studies have attracted the attention of a large number of the educated men of the country, and have lent a special fascination to some of its most eminent writers and to special departments of its literature. While America cannot boast of many writers of pre-eminent philosophical ability or achievements, it can show a record of honorable interest on the part of not a few of its scholars in speculative studies, both pure and applied. While in all these studies America, as was natural, has followed the lead of England, her mother country, she has sympathized most warmly with the changing aspects of philosophy at home, and has in some cases outrun the scholars of England in a readiness to follow the processes and to appropriate the results of speculation on the Continent.

JONATHAN EDWARDS.

§ 57. Jonathan Edwards is the first, and perhaps the greatest, name in American philosophy. 1703–1758. Born in Windsor, Conn.; A.B., Yale College, 1720; Tutor, 1724; Pastor, Northampton, Mass., 1726; also Stockbridge, Mass., 1753; President, College of New Jersey, Princeton, N. J., 1757.

Edwards was distinguished for the early development of his metaphysical tastes and ability, and for the freedom, even to audacity, with which he attempted to adjust the Calvinist theology to the principles and conclusions of a reasoned philosophy. As a consequence he not only established a new and independent school of Calvinistic theology, which has been known as the New England or the Edwardian Theology, but contributed very largely to the development of speculative tastes, and of confidence in speculative inquiries among the scholars of America. The influence of this school has not been inconsiderable upon theology and philosophy in Great Britain, where the name of Edwards has been familiarly known from the first appearance of his Treatise on the Will. Dugald Stewart says of Edwards: "There is one metaphysician of whom America has to boast, who, in logical acuteness and subtility, does not yield to any disputant bred in the universities of Europe." (*Diss.*, part ii., sec. 7.) The impulse and direction to the speculations of Edwards were furnished by Locke. He mastered Locke's Essay when he was thirteen years old, studying it with a keener delight than "a miser feels when gathering up handfuls of silver and gold." But he was not exclusively a student

of Locke, as might be inferred from his secluded situation and limited opportunities. He was a zealous reader of most of the writers accessible in the English language, and was familiar with the course of speculation in the mother country, reading the writers of all schools with equal ardor, and never abandoning the confident belief that whatever is true in theology could be shown to be both true and reasonable in philosophy. Edwards was at once a scholastic and a mystic; a scholastic in the subtlety of his analysis and the sustained vigor of his reasonings, and a mystic in the sensitive delicacy of his emotive tenderness and the idealistic elevation of his imaginative creations, which at times almost transfigured his Christian faith into the beatific vision.

§ 58. The philosophical speculations of Edwards may be found in the following of his works: (1.) Notes On the Mind, and On Natural Science, in the Appendix to S. E. Dwight's Life of Edwards. Vol. i. of Dwight's edition of Edwards' works. These Notes are simply wonderful for a boy of sixteen, in respect to the variety of the topics treated and the speculative ability with which they are discussed. The conclusions of Berkeley on the one hand, and those of Spinoza, were more than hazarded under the pressure of logical necessity. (2.) Treatise on the Religious Affections. Boston, 1746. (3.) A Careful and Strict Inquiry into the Modern Notion of that Freedom of Will which is supposed to be essential to Moral Agency, Virtue and Vice, Reward and Punishment, Praise and Blame. Boston, 1854. (4.) The Great Christian Doctrine of Original Sin Defended; Evidences of its Truth Produced, and Arguments to the contrary Answered, etc., etc. Boston, 1758. (5.) Dissertation concerning the Nature of True Virtue. Boston, 1788. Also, Dissertation concerning the End for which God created the World. (6.) Charity and its Fruits. New York, 1852, edited by Tryon Edwards, D.D. The principal editions of the complete works are: Worcester, Mass., 1809, Dr. S. Austin, 8 vols.; Lond., 1817, 8 vols., edited by Dr. E. Williams; and vols. ix., x., Edin., 1847; Lond., 1834, by Edward Hickman. 2 vols., imp. 8vo, New York, 1830; by S. E. Dwight, 10 vols., vol. i., containing memoir, etc.; New York, 1844; 4 vols., New York, 1855, Worcester edition reprinted.

§ 59. The Treatise on the Will is the work on which Edwards' reputation chiefly rests. The design of the author in writing it was conceived as early as 1748, and is avowed in a letter to Rev. John Erskine, Life, pp. 250–1, and more fully explained in another letter to the same, pp. 496–9, "endeavoring also to bring the late great objections and outcries against Calvinistic divinity from these topics [the misconceptions of the freedom of the will] to the test of the strictest reasoning and particularly that great objection . . . . viz.: that the Calvinistic notions of God's moral government are contrary to the common sense of mankind." It was designed as a reply to the philosophical assumptions made by leading Arminian writers, such as Dr. Samuel Clarke, Dr. Whitby, John Taylor, and Fr. Turnbull (Moral Philosophy), and the philosophical concessions of such Calvinists as Isaac Watts and Philip Doddridge, that the will is self-determined. Against this position Edwards contended that the doctrine of self-determination is unphilosophical, self-contradictory, and absurd, and that the essence of virtue and vice, as they exist in the disposition of the heart, and are manifested in

the acts of the will, lies not in their *cause* but in their *nature*. The great strength of Edwards' argument has been supposed to lie in the demonstration that the conception of a self-determining power in the will is self-contradictory and absurd. This argument is drawn out at great length, and made as nearly exhaustive as possible. *Free* action is *voluntary* action, spontaneity is the only condition of liberty, by whomsoever the liberty or spontaneity is caused. Freedom, as involving self-determination, would involve contingency and the absence of certainty. This would exclude foreknowledge in God and every description of Providence. Edwards distinguished, in fact, between what was afterwards sharply and familiarly known by his followers as natural and moral inability, insisting upon this most positively as early as 1747. See letter to Mr. Gillespie, Memoir, p. 233. The essay on the freedom of the will was supposed by the necessitarians of the school of Antony Collins and of Henry Home—Lord Kaimes, to teach the same principles of philosophical necessity as they had accepted. Against this construction of his views, and particularly against the private doctrine of Lord Kaimes, that God had deceived mankind by an invincible instinct or feeling which leads them to suppose that they are free, Edwards protested, in a "Letter to a Gentleman in Scotland," which was subsequently appended to the Treatise on the Will. In a letter to Mr. Erskine, he insists that the possession of the sinful disposition by which men are unable to obey the commands of God is itself their worst and most inexcusable sin. The doctrines of Edwards, in relation to the will, were received by a large number of followers, although they underwent various modifications. John Smalley, Berlin, Conn., 1734–1820, in two Sermons, 1760, on Natural and Moral Inability, made the contrast between these two conceptions more emphatic. Dr. Jonathan Edwards, the son, 1745–1801, distinguished between natural and moral certainty, the one admitting the opposition of the will, and the other, implying and requiring the consent of the will.

Dr. Stephen West, 1736–1819, in an Essay on Moral Agency, 1772, taught that volition is in every instance an effect which is produced by God's immediate agency. Dr. Nathanael Emmons, 1745–1840, resolved "the sinful disposition, or heart," into a series of voluntary exercises, of which God is the direct and efficient author. "God's acting on their hearts, and producing all their free, voluntary, moral exercises is so far from preventing them from being moral agents that it necessarily makes them moral agents." Asa Burton, D.D., 1752–1836, contended, Essays, 1824, in opposition to Emmons, for a permanent, spiritual taste.

Edwards' treatise did not escape criticism from his own countrymen. Dr. James Dana, D.D., 1735–1812, pastor in Wallingford and New Haven, Conn., published anonymously, Boston, 1770, An Examination of Edwards' Inquiry, and a 2d edition of the same treatise in New Haven, 1773. Dr. Samuel West, pastor in New Bedford, Mass., 1730–1807, published Essays on Liberty and Necessity, part 1, 1793; part 2, 1795. To these Dr. Jonathan Edwards, the son, published a reply in his Essays on Liberty and Necessity. The treatise of Edwards has also been subject to much adverse criticism from professedly anti-Calvinist divines and metaphysicians. Prominent among these critics are: Albert Taylor Bledsoe, Examination of Edwards on the Will, 1846, cf. Theodicy, etc., D. D. Whedon, D.D., The Freedom of the Will as a Basis of Human Responsibility, and a Divine Government Elucidated and Maintained in its Issue with the Necessitarian Theories of Hobbes, Edwards, the Princeton Essayists, and other leading Advocates. New York: Carlton & Porter, 1864; Rowland G. Hazard, Freedom of Mind in Willing; or, Every Being that Wills a Creative First Cause. New York: D. Appleton & Co. 1864. Also, Two Letters on Causation and Freedom

Willing, addressed to John Stuart Mill, with an Appendix, etc. Boston: Lee & Shepard. 1869.

Edwards' treatise has also been subjected to criticism by some writers who have professed to adhere to the Calvinistic system. Conspicuous among these is Henry P. Tappan, D.D., Prof. of Mor. and Intel. Phil., Un. of New York, and Chancellor of the University of Michigan. He published: Review of Edwards' Inquiry into the Freedom of the Will. New York, 1839; The Doctrine of the Will Determined by an Appeal to Consciousness, 1840; The Doctrine of the Will Applied to Moral Agency and Responsibility, 1841. Jeremiah Day, D.D., 1773–1867, published An Inquiry respecting the Self-determining Power of the Will or, Contingent Volition. New Haven: Herrick & Noyes. 1838. 2d edition. Day & Fitch, 1847; Examination of Edwards on the Will. 1841. The doctrine of the will and Edwards' views were abundantly discussed and criticised in the *Quarterly Christian Spectator*. New Haven, 1829–1839. Also, in counter-papers in the *Princeton Theological Review;* reprinted as Princeton Theological Essays. New York, 1846–1847. Cf. Nathanael W. Taylor, 1786–1858. Lectures on the Moral Government of God. 2 vols., New York, 1858.

Henry Carleton published, in the spirit of Collins, Liberty and Necessity, etc., etc. Philadelphia: Parry & McMillan. 1857.

§ 60. The Ethical views of Edwards are given in his Treatise on the Nature of True Virtue, a posthumous work, 1788; and his Treatise on the Religious Affections, 1746; Sermons on Charity and its Fruits, 1852. In composing the first he had Hutcheson and Hume before him. While he accepts the definition of Hutcheson, etc., that virtue subjectively viewed is Love or Benevolence, he qualifies it objectively by insisting that it should be fixed on Universal Being, or being in general, as its object. He distinguishes between the love of *Benevolence* and the love of *Complacence*, making the first to be generic and necessarily virtuous, and the second specific, limited, and relative. He provides that true virtue should be necessarily religious, inasmuch as no virtue can be genuine which does not embrace Universal Being and proportion its selection and its energies to the quantity of Being in its object. He provides also for the inference that God not only might, but should, love himself better than all created beings, inasmuch as He is infinite, and they are finite in the quantity of being. He distinguishes between two senses of self-love, viz., the first, which is the same as loving anything that is grateful or pleasing, and which supposes natural inclinations of a disinterested and a private character, because "the being of inclinations and appetites is prior to any pleasure in gratifying these appetites;" and *the second*, which is "love to one's self, with respect to his private interest." This distinction he illustrates at great length, and in every conceivable aspect.

As in love we make the object one with ourselves, virtuous love is attended with a sense of the propriety or fitness of whatever promotes the good of all, and inasmuch as in selfishness we separate ourselves from the universe of being, there is a sense of its unfitness; giving the moral sense of good and ill desert. This moral sense does not merely arise from the subjective constitution of the soul, which would make it capable of change, as was objected against Hutcheson's Moral Sense, but it depends on the nature of what excites its affections. It is not wholly a Sentiment, but is founded in Reason. The instinctive or natural and special affections are not necessarily virtuous, unless they spring from the unselfish love of Being in General, *i.e.*, unless they are elevated to, and hallowed by the love of God. The moral or spiritual sense of that which is excellent does not imply virtuous affections or spiritual benevolence. Indeed, it may coexist with the absence of these affections.

'The approbation of the conscience should be distinguished from the approbation of the inclination, the heart or the disposition.' What these last are, Edwards answers at great length in his Treatise on the Religious—*i.e.*, the truly virtuous—Affections. First of all, such affections are wrought in the mind by the Spirit of God, the result of which is a new perception or sensation of the mind, differing in nature and kind from any previously possessed. This is not a new faculty, but a new principle which is 'that foundation which is laid in nature, either old or new, for any particular manner or kind of exercise of the faculties of the soul.' 'So this new spiritual sense is not a new faculty of understanding, but a new foundation laid in the nature of the soul for a new kind of exercises of the same faculty of understanding. So that new, holy disposition of heart that attends this new sense is not a new faculty of will, but a foundation laid in the nature of the soul, for a new kind of exercise of the same faculty of will.' 'The Spirit of God only acts in some way upon natural principles, but gives no new spiritual principle.'

The three treatises just characterized were all dictated by the strong desire on the part of Edwards to find a philosophical definition which should express the ethical character of Christian virtue or holiness. They have exercised a powerful influence, both practical and speculative, among the followers of Edwards. They have trained a very considerable portion of the people of the United States to pronounced speculative tastes and habits, by the force of their religious zeal and earnestness, and built up a school of earnest metaphysicians among men not otherwise educated, within and without the Christian Church.

Some of the principles enumerated above were still further developed and applied by the followers of Edwards, either to their legitimate consequences or to one-sided extremes. The doctrine of disinterested benevolence, as interpreted by Samuel Hopkins, 1721–1803, Pastor at Newport, R. I., Great Barrington, Mass., and again at Newport, was carried to the extreme, that a truly benevolent being must be willing to perish to advance the glory of God. The doctrine that spiritual excellence does not consist in a new natural faculty, but in some foundation for a special exercise of a faculty already existing, was modified by Nathanael Emmons, who taught that spiritual excellence pertains only to the *exercises* of a spiritual faculty, and that the heart or disposition is only a certainty provided by the direct efficiency of the Spirit of God as it creates these exercises. The extreme of Emmons called forth the counter-doctrine of Asa Burton, 1752–1836, Pastor, Thetford, Vt., who held that *a taste* or spiritual sense was the *foundation* required by Edwards for the exercises of the soul. The assertion that "the foundation" is not a new faculty was sharpened by Smalley into the distinction already referred to between Natural and Moral Inability, according to which man in his fallen state has all the natural faculties which qualify him to obey the will of God; but inasmuch as he lacks the disposition to do this, he is morally unable to be holy.

Edwards taught that a right disposition or regenerate heart is essential to the moral excellence of every action. All actions which do not proceed from such a disposition are essentially defective. The commands to repent and believe cannot be truly obeyed while this heart or disposition remains unchanged. Every man is naturally able, but morally unable, to obey these commands; therefore, all actions of his which do not involve a new disposition must be sinful, and he cannot be required to perform them. From these premises Robert Sandeman, 1718–1771, derived the conclusion that all the acts of natural or unregenerate men must be sinful and offensive to God, and that all exhortations to repentance or faith, or any acts of the kind, should be withheld. In

opposition to Sandeman, Dr. Hopkins contended that, as the inability of men is simply moral and not natural, they should be exhorted to exercise true holiness, that is, to have the new disposition; but as they are morally unable to attain this of themselves, they should be exhorted to attend on the means of grace. This was a prominent feature of the so-called Hopkinsian divinity or the form of Calvinism named *Hopkinsianism*.

In the treatise entitled The Doctrine of Original Sin Defended, etc., etc., 1758, Edwards contends that the oneness or identity of the posterity of Adam with their progenitor is simply a oneness established by the divine constitution. His argument on this subject is more remarkable for its philosophical ingenuity and pertinacity than for its convincing power.

He contends at great length, on philosophical grounds, that identity or unity is manifold in its import, but that whatever it is, it is the result of the divine constitution. The conclusion which he reaches is as follows: "From what has been observed it may appear there is no sure ground to conclude that it must be an absurd and impossible thing for the race of mankind truly to partake of the sin of the first apostasy, so as that this, in reality and propriety, shall become *their* sin; by virtue of a real union between the root and branches of the world of mankind (truly and properly availing to such consequence) established by the Author of the whole system of the universe; to whose establishment is owing all propriety and reality of *union* in any part of that system; and by virtue of the full *consent* of the hearts of Adam's posterity to that first apostasy; and therefore the sin of the apostasy is not theirs, merely because God *imputes* it to them, but it is *truly* and *properly* theirs, and on that *ground* God imputes it to them."

The Fall of our first Parents, and the continuance of the corrupt nature of the race were not occasioned by the creation or infusion of any positive evil or sinful quality, but by the withdrawment of the higher spiritual or supernatural impulses or influences which left exclusive sway to the lower principles or impulses.

Moreover, by a law of natural descent, the posterity of Adam inherit from their progenitor the nature which he possessed after his original transgression. This nature consisted of that habitual disposition to sin, which resulted from the withdrawment of the higher spiritual influences. The sin of Adam is not imputed to his posterity, but the habitual disposition to sin is transmitted to them. They are not condemned on account of his sin, but on account of their own personal sin. The sovereign constitution by which the posterity of Adam is constituted one with himself does not compel them to sin actually, although it makes it certain they will sin through the withdrawment of the superior spiritual influences which would have prevented their sinning, had these influences been operative and present.

The existence of moral evil, in consistency with the divine perfections, is explained by the principles enounced in the Treatise on the Will, viz.: that the Divine Being is not the author of sin, but only disposes things in such a manner that sin will certainly ensue. If this certainty is not inconsistent with human liberty, then it is not inconsistent with this liberty that God should be the cause of this certainty, and in that sense be the author of sin.

In the treatise on God's Last End in Creation, a posthumous work, published in connection with the essay on the Nature of Virtue, Edwards contends that there is no incompatibility between the happiness of created beings and the declarative glory of God, inasmuch as these two ends coincide in one. The creation, as happy and holy, as it is the object of the benevolent love of the Creator, cannot but declare his glory.

The Disciples of Edwards.

§ 61. We have already referred to some of the followers of Edwards. Among the most conspicuous of these, for logical and philosophical power, was his son Jonathan Edwards, D.D., 1745–1801. Cf. the works of Jonathan Edwards, D.D., late President of Union College, etc., by Tryon Edwards. Two volumes. Andover, 1842. He adopted most of the philosophical principles of his father, except that in his Dissertation already referred to on the Liberty of the Will, in reply to Dr. West, he laid far greater stress than his father had done on mere certainty, and less on the grounds of it. His sermons on the Atonement, 1785, are an elaborate treatise on general and special justice in the moral government of God, in which principles similar to those of of Grotius, in his treatise *De Satisfactione*, are carefully defined and applied. The Younger Edwards, as he is called, is best known by the development of what is called the New England Theory of the Atonement, which has been carefully wrought out as a philosophical system by the writers whose sermons and treatises have been republished by:—

Edwards A. Park, in the volume, The Atonement, Discourses and Treatises, by Edwards, Smalley, Maxcy, Emmons, Griffin, Burge, and Weeks. Boston, 1859.

Cf. Horace Bushnell. The Vicarious Sacrifice, etc. New York, 1866. Reviewed, *New Englander* and *Am. Theol. Rev.* and *Princeton Rev.* for 1866.

The other distinguished leaders of the Edwardian school of Philosophy and Philosophical Theology are Joseph Bellamy, Stephen West, John Smalley, Samuel Hopkins, Nathanael Emmons, and Timothy Dwight.

Joseph Bellamy was a contemporary of Edwards, pastor in Bethlehem, Ct., 1719–1790. He published True Religion Delineated, 1750, and other works. Cf. Collected Works, 2 vols. Boston, 1850. Stephen West, 1736–1819. John Smalley, 1734–1820. Samuel Hopkins, 1721–1803. Collected Works, Boston, 1853. Nathanael Emmons, 1745–1840. Cf. Collected Works with Memoirs, etc. 6 vols. 1842. Timothy Dwight, 1752–1817; A.B., Yale Coll., 1769; Tutor, 1771–1777; Pastor at Greenfield, Ct., 1783–1795; Pres., 1795–1817. Theology Explained and Defended, 5 vols., and 4 vols. 8vo, 6 v. 24mo, and 1 imp. 8vo, 1818–'19, '22, '23, '24, '27, '28, '40, '46.

Dr. Dwight was, in the main, a disciple of Edwards. He referred to him as an authority which was decisive and final upon most questions of philosophy and theology. He dissented from many of the conclusions which were adopted by some of his disciples, and mediated between the extremes which opposing schools among them had reached. He was familiar with the works of the leading English and Scottish philosophers, and discussed their opinions in a popular style. Being a man of decided literary tastes and culture he studiously avoided scholastic and theological nomenclature, and in this way kept himself free from many frivolous and shadowy distinctions of thought. He was also more or less familiar with the rational and ethical English divines of the 18th century, and was influenced, to some degree at least, by the modes of reasoning and statement with which he became familiar in Berkeley, Butler, and George Campbell. The philosophical and ethical elements which held so large a place in the theological system of Edwards were made more prominent in the teachings of Dr. Dwight. As a writer and thinker he was, however, far more distinguished for clearness and method in presenting the thoughts of others than for any special subtlety of analysis or profoundness of principles of his own. The text-books which he employed in instruction were Mark Duncan's Logic, Locke's Essay, and Paley's Mor. and Pol. Philosophy.

The Edwardian metaphysics, which were popularized, if not ameliorated, by Dr.

Dwight, have been still further modified by several of his pupils and other writers, conspicuous among whom were Moses Stuart, Lyman Beecher, Nathanael W. Taylor, Eleazer T. Fitch, Charles G. Finney, Mark Hopkins, and Edwards A. Park.

These writers have deviated more or less pronouncedly from the doctrines of Edwards in respect to the Will, the Nature of Holiness and of Sin, the Nature and Authority of the Moral Government of God, and the Atonement and Work of Christ, introducing more largely modern psychological and ethical elements, and conforming the method and nomenclature of theological discussions more completely to the requirements of philosophy and the results of the new school of grammatical and historical exegesis.

Philosophy Subsequent to Edwards.

§ 62. Jonathan Edwards and his disciples were not the only philosophical thinkers of the 18th century, even in New England. The Platonizing Berkeley left his impress on here and there a speculative mind in tolerant and hopeful Rhode Island, and through one ardent admirer occasioned the production of an independent treatise, which deserves a passing notice. In 1752 Benjamin Franklin printed, in Philadelphia, *Elementa Philosophica*, containing chiefly *Noetica*, or things relating to the Mind or Understanding; and *Ethica*, relating to the Moral Behavior. Lond., 1753. The work is anonymous, but the author was Samuel Johnson, D.D., First President of the College in New York, now known as Columbia College. Dr. Johnson, 1696–1772, had been a tutor in Yale College, and was an Episcopal missionary in Stratford, Conn., till 1754. (See Life by Chandler, 1805, Lond., 1824. Also newly written by Dr. E. E. Beardsley, not yet published.) During Bishop Berkeley's residence at Newport, Johnson made his acquaintance and adopted the principles of his philosophy. The *Elementa Philosophica* was printed two years before the Essay on the Freedom of the Will. The work is written with great clearness and elevation of style, and is conceived in the spirit of Malebranche and John Norris, except that the distinctions are more precise and the terminology is more exact than with these writers. It is positively theistic, but with no especial theological bias, except toward what was known as the Hutchinsonian theory.

In 1765, Thomas Clapp, D.D., 1703–1767, President of Yale College, published a brief essay on the Foundation of Moral Virtue and Obligation. It was designed as a text-book, but displays no special philosophical ability, and no originality of conception or style. In respect of reach and subtilty of thought it falls immeasurably below Edwards.

§ 63. The war for the independence of the American colonies was unfavorable to culture of every description, and was especially unfriendly to speculation upon any other than questions of political and economical science. The discussions which preceded this war could not be other than philosophical and ethical, for the American people were thoughtful and serious, and had read earnestly the best philosophical treatises upon the nature and obligations of government. Locke on Government and Lord Somers' Tracts, and other similar treatises, were freely circulated, and in some cases reprinted in cheap editions. Thomas Paine's "Common Sense," and "The Crisis," were serviceable political pamphlets in the excitement of the hour. The "Rights of Man," published subsequently to the war, had a European reputation. After the new government was organized the attention of the American people was occupied with the principles of political philosophy, through the discussions which attended the

formation of their own Federal Constitution, such as were furnished by Alexander Hamilton, James Madison, and John Jay in the *Federalist;* and also by the development of two opposing parties, that of Washington and Hamilton on the one hand, and that of Jefferson and his associates on the other hand. The last had a positive speculative character and was eminently theoretical in its spirit. Its principles were those of the political philosophers of the French Revolution.

Benjamin Franklin, 1706–1790, deserves to be named alone, as in many respects a typical American of that period. He exemplified the frugal and sagacious practical wisdom which was so eminently necessary in times like those for a people generally educated, but chiefly occupied in the rude employments required in a new country. Franklin was an eminent physicist, but for speculation proper, either in ethics, politics, or theology, he had neither taste nor eminent capacity. But Franklin did much to excite and direct the activity of the American people for more than one generation.

The Deistical movement excited much interest in America in the last quarter of the 18th century, and stimulated to philosophical discussion and inquiry. The political relations of the freethinkers of England and France made many friends in America for their writings. In consequence, the defenders of the Christian faith were forced to read and discuss these writings, and to study their speculative principles. The awakening of a literary spirit, not far from the beginning of the present century, also involved an awakening of philosophical life. The writings of Hume began to be familiarly known and freely discussed. Locke's Essay on the Human Understanding was for a long time the well-studied text-book in the instruction of the youth at the most important of the American colleges. The almost exclusively theological and legal direction which the educational and professional activity of the country had taken now began to be shared by literature and physics. Philadelphia and its vicinity took the lead in physics and mathematics, and was for a while foremost in literature. Timothy Dwight and his associates gave a positive impulse to the culture of letters. A few years later both Harvard College and Boston began to attain that pre-eminence in classical and literary culture which they have since maintained. Last of all, New York furnished important and original contributions to thought and letters. The new sciences of chemistry and geology, with the related sciences, began to be known and cultivated everywhere with enthusiastic zeal. All these new influences increased the special interest in speculative studies which the theological and political tastes of the people, conjoined with their free and independent spirit, had fostered from a very early period.

The contributions of original or important works to philosophy have been few. America has followed in the track of European thinkers with prompt and active sympathy, and has often surpassed Great Britain in her readiness to respond to any new movement in speculative thought, but she has produced few works of independent originality. But in no country are new principles and new systems more quickly comprehended, more widely diffused, and more boldly applied.

The Scottish philosophy has had a wide-spread influence in this country. The works of Reid were not so generally circulated on account of the pre-occupations of the American War for Independence and the organization of the new political union, 1770–1800, but when the attention of thinking men was aroused to the practical consequences of the theological and political philosophy of England and France, the works of Reid were studied for a better system. As soon as Dugald Stewart appeared upon the arena, his lectures were resorted to by a few favored American pupils, and his works were reprinted as fast as they appeared, and some of them be-

came the favorite text-books in our leading colleges. The newly modified philosophy of Locke began to affect the theology and ethics of the country, and to excite an independent spirit of research and criticism. The monthly and quarterly periodicals of the country began to swarm with critical and controversial articles on abstruse speculative topics. The earliest independent treatise which we notice was by Rev. Frederic Beasley, 1777–1845, Professor of Moral Philosophy in University of Pennsylvania, 1813–1828, and Provost of the same: A Search of Truth in the Science of the Human Mind. Part 1. Philadelphia, 1822, 8vo. It is in general somewhat antagonistic to the claims and views of Reid and Stewart, and friendly to Locke, and not without interest and ability. The work was left incomplete by the author.

Perhaps the most influential of the works of Dugald Stewart was his treatise on the Active Moral Powers of Man, 1828, on account of its bearing on the theological and ethical controversies which were then beginning to excite general attention. The rhetorical lectures of Dr. Thomas Brown were many times reprinted, and, bulky as they were, were used as a text-book in some of our colleges. An abridged edition was prepared by Prof. Levi Hedge, 1767–1843, Prof. of Logic and Metaphysics in Harvard University, 1801–1827.* The treatise on Cause and Effect excited a more active interest in America, if possible, than in Great Britain.

About this time, as has already been intimated, an active theological controversy had broken out among the disciples of Jonathan Edwards, which was stimulated by a serious defection from their ranks among the theologians and littérateurs of Massachusetts. [See Catastrophe of the Presbyterian Church, by Z. Crocker, 1838. A Half Century of the Unitarian Controversy, by Geo. E. Ellis, D.D., 1859. Pages from the Ecclesiastical History of New England, by Bp. George Burgess, D.D.] The philosophical questions involved were the freedom of the will, the nature of virtue, and the nature and essential principles of the moral government of God. The discussion of these questions made necessary a thorough and fearless examination of the principles of philosophy. Foremost among the leaders in this controversy was Nathanael W. Taylor, D.D., of New Haven, 1786–1858, Prof. of Theol., Yale Coll., 1822–1858. His lectures and papers were characterized by boldness, acumen, and logical vigor. While Dr. Taylor, as did all his disciples and all who sympathized with the so-called New School Theology, contended that he was a Calvinist in the substance of his theological creed, he did not hesitate to avow that Theology and Calvinism were susceptible of great improvements in their philosophical theories. His own aim was to introduce a larger infusion of ethical elements into Christian theology, while he retained every one of its distinctive truths. His own system might be philosophically characterized as a product of Edwards, Leibnitz, and Butler. See *Quarterly Christian Spectator*, 10 vols., New Haven, 1829–39. Also, Lectures on the Moral Government of God, 2 vols., 1859. (Reviewed in *New Englander*, 1859, by Prof. B. N. Martin; in *Princeton Review*, by Prof. L. H. Atwater, D.D., 1859. Answered in *New Englander*, 1860, by Prof. N. Porter.) See also Memorial of N. W. T., 1858. Also, Semi-centennial Anniversary of the Divinity School, Yale Coll., 1872. Associated with him were Eleazer T. Fitch, *Qu. Christian Spectator*, Sermons on the Nature of Sin, 1826. Inquiry and Reply, 1828. Chauncey A. Goodrich, Editor of *Qu. Chris. Spec.* President Jeremiah Day, 1773–1867, wrote in a conciliatory and apologetic spirit defending Edwards: Examination of Edwards on the Will, etc.; An Inquiry respecting the Self-determining Power of the Will, etc., 1838.

* Professor Hedge was the author of the briefest possible treatise on logic, 1818. Professor Levi Frisbie, 1784–1822, was Professor of Moral Philosophy in Harvard, 1810. Some of his lectures and critical articles were published 1823, after his death.

Rev. Henry P. Tappan, D.D., Prof. of Intell. and Moral Phil., New York, 1852 elected Chancellor of the University of Mich., published a Review of Edwards' Inquiry into the Freedom of the Will, N. Y., 1839; Doctrines of the Will Determined by an Appeal to Consciousness, 1840; The Doctrine of the Will applied to Moral Agency and Responsibility, 1841, all of which were sharply antagonistic to Edwards.

Coincident in time with the awakening of this new interest in philosophy among the theologians of the Scottish school was the publication of the text-books and treatises of Professor Thomas C. Upham, D.D., 1799–1867. Prof. in Bowdoin Coll. from 1824–1867. He published Elements of Mental Philosophy, 2 vols., Portland, 1831, which has passed through many editions; abridged in 1848. In 1834 he published a Philosophical and Practical Treatise on the Will, forming the third volume in his system. Also, Outlines of Imperfect and Disordered Mental Action, 1840. Also, The Absolute Religion (posth.), 1872. Prof. Upham drew from Stewart and Brown, taking his terminology from Brown, but was on many points independent and original.* Rev. Dr. Francis Wayland, Pres. Brown University, 1796–1865, published, in 1835, Elements of Moral Science, which has passed through many editions, and almost entirely displaced the text-book by Paley. Dr. W. followed the theories of Reid and Price. Also, the Limitations of Human Responsibility, 1838; also, Elements of Intellectual Philosophy, 1854; also many other well-known works on Education, Political Economy, and Theology. See Memoir, by his sons, 2 vols., 1867.

At this fermenting period of interest in speculative questions, other elements were introduced which did not diminish the excitement. The writings of Coleridge had been hitherto slightly known in our literature, and his philosophical speculations had made little or no impression; his Biographia Literaria was republished in 1817, but apparently aroused no response except of wonder. But in 1829 the philosophy of Coleridge created an extensive and warm excitement. The Aids to Reflection was republished, with an elaborate introduction by the scholarly James Marsh, D.D., then President of the University of Vt. Pres. Marsh was till then known only as a retired and erudite scholar, who dissented somewhat from the current Edwardian theology. In this introduction he made a bold assault upon the current philosophy of England and America, and proposed as a substitute the new and more profound spiritual philosophy of Coleridge, Kant, and Jacobi, and of the Platonizing English theologians of the 17th century. This essay was one of the first indications of the interest in the German philosophy in this country, and in the German philosophical theology. The exegetical theology of the Germans only had previously been made somewhat familiar to American scholars through the influence of Prof. Moses Stuart and others. Dr. Marsh, 1794–1842, was Pres. of the University of Vt., 1826–1833; and Prof. of Int. and Moral Phil., 1833–1842. His Remains, with Mem., 1843, contain valuable philosophical papers. Among the most distinguished adherents of this school is Prof. W. G. T. Shedd, b. 1820, who edited Coleridge's complete works, 7 vols., 1854, but has devoted himself especially to Dogmatic History and Theology.

To add to the excitement, Rev. C. S. Henry, subsequently Professor of Philosophy, etc., in the University of New York, published, in 1834, a translation of Victor Cousin's Lectures upon Locke, under the title Elements of Psychology, with Introduction and Notes. This work openly raised the standard of revolt against the fundamental prin-

* Nathan W. Fiske, D.D., died 1847. Prof. Intellectual Philosophy, Amherst Coll. Contributed also, as an instructor and writer, to philosophical activity and literature. Cf. his Memoir and Misc. Works, edited by H. Humphrey. (?)

ciples and method of Locke's philosophy. It went through several editions, and gave strength and impulse to the movement toward the continental writers. Professor Henry afterwards published Moral and Philosophical Essays, 1839; also, An Epitome of the History of Philosophy, translated from the French, with additions, etc., 1845; also many critical essays. Professor James W. Alexander and Albert B. Dod controverted Henry in the *Princeton Review* with great energy.

In the Unitarian body, in England and this country, the leading philosophers had been Belsham and Priestley, and the philosophy of Locke had been accepted in its extremest form. But in this country, after the Unitarians became a distinct body, their controlling and representative spirit was William Ellery Channing, 1780–1842, who, though not severely speculative in his training or in the movements of his mind, was an earnest believer in a lofty and self-asserting spiritual philosophy, and gave utterance to the most confident assertions in respect to the independence and authority of reason and conscience. The spirit of his teachings was caught by a number of young men of wider reading and more exact scholarship, and it led them to an open revolt against some of the traditions of the Unitarian body in philosophy and theology. This revolt occasioned a temporary controversy. Conspicuous among the adherents of the new philosophy were George Ripley, b. 1802; Ralph Waldo Emerson, b. 1803; W. H. Channing, Margaret Fuller, J. Freeman Clarke, and Theodore Parker. George Ripley, then a clergyman in Boston, subsequently associate editor of the *Dial*, later, literary editor of the New York *Tribune* and co-editor of the American Cyclopædia, published Discourses on the Philosophy of Religion, 1839; Letters to Andrews Norton, D.D., 1840; and edited Specimens of Foreign Standard Literature, 1838–42, 14 vols., some of which contained translations from Cousin and Jouffroy. Emerson published numerous Essays, highly philosophical in spirit, but belonging rather to the imaginative than the scientific division of philosophy. The same is true of the contributions of most of his associates and disciples, of whom a large number are well known as accomplished critics and essayists. Theodore Parker, 1812–1860, published, in 1841, a Discourse on the Transient and Permanent in Christianity, and in 1842 his celebrated volume, entitled Discourse on Matters Pertaining to Religion, which, with many of his numerous productions, have passed through many editions in this country and Great Britain. A collected edition of his works was issued in England, 1863–65, in 14 vols. The new philosophy among the Unitarians began by denying that miracles were the chief authority for a Supernatural Revelation, because such a revelation must be self-evidencing and authoritative for the spiritual reason. While it led many to deny that a revelation of such a character was required, it stimulated a large number of men of speculative tastes to a comprehensive and thorough study of philosophy and its history. The profound and scholarlike interest in these studies which have been thus awakened still remains, and promises to become more controlling and widespread in the future. Among able writers on philosophical subjects who are suggested by Harvard University, we name James Walker, D.D., LL.D., b. 1794, Prof. Mor. and Int. Phil., 1838–1853, and President from 1853–1860, who delivered, but did not publish, a course of Lowell Lectures on the Philosophy of Religion, and has published a selection from Reid's Essays, Intellectual Powers, with Notes, for College Use; and also a similar selection from D. Stewart's Active and Moral Powers, with Notes, etc.

We name, also, Francis Bowen, LL.D., b. 1811, Prof. of Nat. Religion and Mor. Philosophy in Harvard University; who has published Essays on Speculative Philosophy,

Bost., 1842; and Lowell Lectures on the Application of Metaphysical and Ethical Science to the Evidences of Religion, Bost., 1849; also an able and exhaustive Treatise on Logic, or the Laws of Pure Thought; comprising both the Aristotelic and Hamiltonian Analysis of Logical Terms, etc., etc., Camb., 1864; also, Dugald Stewart's Elements of the Philosophy of the Human Mind, 1854. Also, Charles Carroll Everett, now Professor in the Divinity School, Harvard Coll., who, in 1869, published The Science of Thought; a System of Logic after the Principles of the Hegelian School, as expounded by Gabler, of Berlin. We name, also, Philosophy as an Absolute Science, by E. L. and A. L. Frothingham. Boston, 1864. Volume i., the only one published, upon Ontology, in the spirit of Swedenborg. Henry James, Theophilus Parsons, and Sampson Reid have written, with great ability, valuable works and essays, more or less decidedly in the spirit of Swedenborg.

In connection with the movement just described, we should name Orestes A. Brownson, Esq., b. 1802, who first contributed a series of philosophical articles to the *Christian Examiner;* and, in 1836, published New Views of Christianity, Society, and the Church. Two years after he began to publish the *Boston Quarterly Review*, which contained many articles of his own on Philosophy, in the direction of *Leroux*, of whom he was then a disciple. This periodical was intermitted, and subsequently revived in 1844, after his adhesion to the Romish Church, under the title of *Brownson's Quarterly Review*, which abounded in philosophical criticism. It was removed to New York, and was sustained for many years, and has been recently revived.

The critical articles of Sir William Hamilton were read extensively in this country as they were successively produced; and his writings have been reprinted and extensively circulated, and are everywhere highly esteemed.

The Associational Philosophy has never attained the predominance in this country which might have been anticipated from the absorbing interest of the people in material enterprises. J. S. Mill's Logic, and the writings of Bain and Spencer, have however, been extensively read. The interest in Spencer has been largely a sympathetic partiality for the tendency of his speculations, rather than an earnest speculative conviction of their truth. Prof. John W. Fiske has lectured publicly on the spirit of Spencer's doctrine of Evolution; and J. W. Draper has written The History of the Intellectual Development of Europe, and the History of the American Civil War, after the speculative assumptions of his school. There are few, however, who accept the doctrines of the Associationalists or the Evolutionists as philosophical truths on their philosophical merits.

Among the writers in America who have attracted more or less attention may be named, in addition to those already noticed, the following:—

Laurens P. Hickok, D.D., LL.D., born 1798; Pastor; Professor of Philosophy in Hudson, Ohio, and subsequently of Theology in Auburn, New York, and later, of Phil. in Union College. Published Rational Psychology, Auburn, 1848; Moral Science, Schenectady, 1853. Empirical Psychology. New York, 1854. Rational Cosmology, 1858. Creator and Creation; or, the Knowledge in the Reason of God and His Work. New York, 1872. Humanity Immortal; or, Man Tried, Fallen, and Redeemed. Boston, 1872.

Dr. Hickok has labored with the devotion of many years in the field of Speculative Philosophy. He writes with subtilty and occasional eloquence, using somewhat of the terminology and the classification of Kant and Jacobi. He was one of the first to adopt the classification of Kant, and has perseveringly adhered to it, and has trained a considerable school of disciples and imitators. He is a pronounced Theist and Supernaturalist.

Mark Hopkins, D.D., LL.D., born 1802; M.D., 1828; Professor Moral Philosophy, etc., Williams College, Massachusetts, 1830-36; President, 1836-1872. Published, besides papers in *Bib. Sacra*, etc., Lowell Lectures on the Evidences of Christianity. Boston, 1846. Miscellaneous Essays and Reviews, 1847. Lowell Lectures on Moral Science. Boston, 1862. Lowell Lectures, 2d series; or, The Law of Love, and Love as a Law, a Moral Science, Theoretical and Practical. New York, 1869. 3d ed, 1871, with an Appendix, containing strictures by Dr. McCosh, with replies. This Appendix is very instructive, as exhibiting the author's theory, which may be described as a combination of that of Jonathan Edwards and that of Th. Jouffroy, in contrast with that of Reid and Price, as defended by Dr. McCosh. President Hopkins is singularly independent and individual in his methods of thinking and writing, and has shown a sincere love of truth in altering his ethical starting-point (*vide* Preface to Lectures on Moral Science).

James McCosh, D.D., LL.D. See list of his works, chap. 9. Some of these works have been written in America, in all of which, and in some able papers in our periodicals, the author has exhibited a lively interest in, and a warm appreciation of, philosophy in the United States.

Charles G. Finney, D.D., b. 1792, Preacher, President and Professor at Oberlin, Ohio, has founded a somewhat distinctive school, with some deviations from Edwards, and published lectures on Systematic Theology, new ed., 1851, in which his speculative and ethical system are fully developed.

James H. Fairchild, D.D., President of Oberlin College, published in 1869, New York, Moral Philosophy; or, The Science of Obligation, in which he follows Finney closely.

Asa Mahan, D.D., Professor and President of College at Oberlin, published System of Intellectual Philosophy, 1845. A Treatise on the Will. The Science of Logic; or, An Analysis of the Laws of Thought. New York, 1857. The Science of Natural Theology, Boston, 1867. Dr. Mahan is a thinker of great activity and enterprise. He has given earnest attention to all phases of modern speculation, especially in their relations to Ethics and Theology.

Professor Henry N. Day, D.D., born 1808; Professor West. Res. Coll., 1840–1858; President Ohio Female College, 1858–1864; Fundamental Philosophy from Krug, 1848, 16mo, pp. 59; The Logic of Sir William Hamilton, 1863, 12mo, pp. 280; Elements of Logic, 1867, 12mo, pp. 237; Logical Praxis, 1872, pp. viii., 148; The Science of Æsthetics, 1872, pp. xviii., 434; also articles in various journals.

John Bascom, Professor in Williams College, published, New York, 1869, The Principles of Psychology; also, New York, 1871, Science, Philosophy, and Religion; Lectures delivered before the Lowell Institute. He has also published Treatises on Æsthetics and Political Economy; also various papers in the *Bib. Sac.* and other periodicals. Prof. Bascom is a vigorous and independent critic. He is in some sense a pupil of Dr. Hickok.

Julius H. Seelye, D.D., LL.D., born 1825, Professor of Intellectual Philosophy in Amherst College, published, New York, 1856, A Translation of Dr. A. Schwegler's History of Philosophy in Epitome; also various critical papers, following, in general, Dr. Hickok's philosophy and nomenclature.

P. A. Chadbourne, M.D., LL.D., Professor of Natural History in Williams College, and President, 1872, published Lectures on Natural Theology, New York, 1867; also, New York, 1872, Instinct: Its Office in the Animal Kingdom and its Relation to the Higher Powers in Man, both Lowell Lectures.

Joseph Haven, D.D., Professor of Intellectual and Moral Philosophy in Amherst College, Massachusetts, Professor of Theology in Chicago Theological Seminary, published in 1858, Boston, Mental Philosophy, including the Intellect, Sensibilities, and Will, which has been very extensively used as a text-book; also, Moral Philosophy, including Theoretical and Practical Ethics, 1859, also very popular; also, Studies in Philosophy and Theology, Andover, 1871.

Professor Haven is a critical and eclectic follower of the Scottish school.

Frederick Augustus Rauch, D.D., 1806–1841, President of Marshall College, published in 1840 Psychology, including Anthropology, 4th ed.

Samuel S. Schmucker, D.D., born 1799, published, 1842, Psychology; or, Elements of a New System of Mental Philosophy.

E. V. Gerhart, D.D., President of Franklin and Marshall College, published, Philadelphia, 1858, An Introduction to the Study of Philosophy, with an Outline Treatise on Logic.

William Dexter Wilson, D.D., LL.D., born 1816, Professor of Logic, etc., in Hobart Free College, 1850, subsequently in Cornell University, published in New York, in 1856, An Elementary Treatise on Logic; also, Ithaca, 1871, Lectures on the Psychology of Thought and Action, Comparative and Human. Professor Wilson's logic is very comprehensive and exact.

Samuel Tyler, LL.D., born 1809, advocate, published Discourse on the Baconian Philosophy, Baltimore, 1844; 3d ed., New York; also, The Progress of Philosophy in the Past and Future, Philadelphia, 1858; 2d ed., 1868; also, Critical Articles in *Princeton Review* on Sir William Hamilton, October, 1859; God and Revelation, January, 1862. Dr. Tyler was a friend and correspondent of Hamilton.

Albert Taylor Bledsoe, LL.D., Professor, University of Virginia. A Theodicy; or, Vindication of the Divine Glory, as Manifested in the Constitution and Government of the Moral World. New York, 1854. Examination of Edwards on the Will, 1846. Bledsoe is always acute and vigorous.

Henry Carleton, Judge of Supreme Court in Louisiana. Liberty and Necessity, in which are considered the Laws of Association of Ideas, the Meaning of the word Will, and the True Intent of Punishment. Philadelphia, 1857. Brief and clear, in the manner and with the doctrines of Antony Collins.

Daniel D. Whedon, D.D., born 1808. The Freedom of the Will, etc. (already referred to, 1864.

On Moral Philosophy, besides the writers already named, we add John Witherspoon, D.D., President of Princeton College, 1723–1794. Lectures on Moral Philosophy. Edin., 1812.

Samuel Stanhope Smith, D.D, LL.D., successor of Witherspoon, also published Lectures on Political Philosophy. Trenton, 1812, 2 vols.

Jasper Adams, President of the College of Charleston, S. C., published Elements of Moral Philosophy. New York, 1837.

William Adams, S.T.P., Presbyter Prot. Episc. Church in Wisconsin. The Elements of Christian Science, a Treatise upon Moral Philosophy and Practice. Phil., 1850. An interesting and well-written treatise, not severely scientific.

James R. Boyd. Eclectic Moral Philosophy, prepared for literary institutions and general use. N. Y., 1849.

J. W. French, D.D., Professor of Ethics, U. S. Mil. Academy. Published, N. Y., 1865, 3d edition, Practical Ethics, for the Use of the Students at the Military Academy.

Richard Hildreth, LL.D. Theory of Morals. Bost., 1844.

Simon Nash. Morality and the State. Columbus, Ohio, 1859.

Archibald Alexander, D.D., 1772–1851. Professor of Didactic Theology in Princeton, 1812–1851. Outlines of Moral Science, a brief text-book, remarkable for neatness and comprehensiveness. (Posthumous.) N. Y., 1852.

David Metcalf. An Inquiry into the Nature, Foundation, and Extent of Moral Obligation, involving the Nature of Holiness and of Sin; being an Introduction to the Study of Moral Science in all its Branches, including the Legal, Theological, and Governmental. Boston, 1860.

Written in question and answer. Maintains the theory of benevolent utility.

J. Alden, D.D., Prof. in Williams College. Christian Ethics. N. Y., 1866.

Hubbard Winslow, D.D., 1800–1864. Pastor in Boston and elsewhere; also, Teacher. Published, 1851, Elements of Intellectual Philosophy; 10th edition, 1863; also, in 1856, Elements of Moral Philosophy. 8th ed., 1862.

James T. Champlin, D.D., President of Waterville College, published in Boston, 1860, Text-book in Intellectual Philosophy.

Noah Porter, D.D., LL.D., b. 1811; Prof. Mor. Phil. etc., at Yale College, 1846–1871; Pres., 1871. In 1868, published The Human Intellect, with an Introduction on Psychology and the Soul. In 1871, The Elements of Intellectual Science, and The Sciences of Nature *versus* the Science of Man.

Oliver S. Munsell, D.D., President of Illinois Wesleyan University. A Text-book in Psychology. N. Y., 1871.

James Rush, M.D., 1786–1869, published, in 1865, A Brief Outline of an Analysis of the Human Intellect, intended to Rectify the Scholastic and Vulgar Perversions of the Natural Purpose and Method of Thinking by Rejecting altogether the Theoretic Confusion, the Unmeaning Arrangement, and the Indefinite Nomenclature of the Metaphysician. 1865, 2 vols., 8vo. In this work the author teaches, that in connection with every action of the intellect there is a physical action of the senses and the brain.

D. H. Hamilton, D.D., published, Bost., 1873, an elaborate treatise entitled, Autology: an Inductive System of Mental Science whose Centre is the Will and whose Completion is the Personality; a Vindication of the Manhood of Man, the Godhood of God, and the Divine Authorship of Nature.

Martyn Paine, M.D., LL.D., published, N. Y., 1872, in a completed form, Physiology of the Soul and Instinct, as distinguished from Materialism, etc., etc.

We have adverted already to the influence of Berkeley. It would seem that the spirit of the idealist had never ceased to haunt the beautiful shores of Rhode Island. Whatever be the cause, a speculative tendency has never ceased to animate its gifted men. Job Durfee, Chief Justice of the State, who died in 1847, wrote an elaborate treatise in the spirit of Malebranche and John Norris, entitled, The Pan-Idea; and Rowland G. Hazard, in the midst of the engrossing cares of an active business, published, Prov., 1836, Language: its Connection with the Present Constitution and Future Prospects of Man; and subsequently republished, with other papers of the writer; and in 1864, New York, Freedom of Mind in Willing; or, Every Being that Wills a creative First Cause; in 1869, Bost., Two Letters on Causation and Freedom in Willing, addressed to John Stuart Mill, with an Appendix on the Existence of Matter and our Notions of Infinite Space. All Mr. Hazard's writings are eminently fresh, acute, and original.

Francis Wharton, D.D., LL.D. Theism and Scepticism, 1859—A series of spirited essays against Comte. Horace B. Wallace, 1817–1852, contributed to the *Methodist Quarterly Review* articles of remarkable ability, which were republished 1856, with literary criticisms and other papers.

Horace Bushnell, b. 1804. Among many other interesting essays and discourses of a speculative cast, published Nature and the Supernatural, as together constituting one System of God. N. Y., 1860. This is an important contribution to ethical and theological speculation.

George Taylor, published, N. Y., 1851, Indications of a Creator; or, The Natural Evidences of a Final Cause.

Henry B. Smith, D.D., LL.D., b. 1815; Prof. of Mental and Moral Philosophy in Amherst College, 1847–50; Prof. of Eccles. Hist. in Union Theol. Sem., New York, 1850–54; since Prof. of Syst. Theol.; has contributed many able critical articles on topics in speculative philosophy to encyclopædias and periodicals, particularly to the *American Theological Review*, of which he has long been the editor.

Lyman H. Atwater, D.D., LL.D., Prof. of Philosophy, and since Prof. of Logic and Political Economy, Princeton, has contributed many articles to the *Princeton Review* and the *Am. Theol. Review*, of both which, now united, he has been and still is co-editor, and also published, 1867, a Manual of Elementary Logic.

Charles Hodge, D.D., LL.D., b. 1798, Professor in Theol. Sem. at Princeton, N. J., 1822, published various Ethical and Philosophical Papers in the *Princeton Review*, of which he was the founder, and for 40 years the editor. Also, A System of Theology. 3 vols., 1871, '72, '73, including many philosophical discussions.

James Henry Thornwell, D.D., LL.D., d. 1863, Prof. of Ethics and Pres. of S. Car. University, and Prof. of Theology in Columbia, published many able and important discussions on Philosophical Theology and Ethics, which are republished in a posthumous edition of his works, in 6 vols.

Edwards A. Park, D.D., LL.D., b. 1808; Prof. of Mental and Moral Philosophy at Amherst, 1834–36; since Prof. in Theol. Sem. at Andover, besides giving lectures on speculative topics has contributed critical articles to the *Bib. Repository* and the *Bibliotheca Sacra*.

Tayler Lewis, LL.D., b. 1802, Prof. of Greek in the University of New York, 1838, and 1849 in Union College, published, besides many papers, in 1845, Plato contra Atheos, with Critical Notes, etc. Largely speculative.

Francis Lieber, LL.D. Manual of Political Ethics, designed chiefly for the use of Colleges and Students at Law. . . . Part I., Book I. Ethics General and Political. Book II. The State. Part II. Political Ethics Proper. Boston, 1838–39, 2 vols., 8vo. (2d ed., 1847, and repub. Lond., 1839). Legal and Political Hermeneutics, or Principles of Interpretation and Construction in Law and Politics, with Remarks on Precedents and Authorities. Enlarged edition. Boston, 1839, 12mo. On Civil Liberty and Self Government. Phila., 1853, 2 vols., 12mo. Essays on Property and Labour as connected with Natural Law and the Constitution of Society. New York, 1841, 16mo.

E. Mulford. *The Nation:* The Foundations of Civil Order and Political Life in the United States. New York, 1870, 8vo.

B. F. Cocker, D.D., Prof. Moral and Mental Philosophy in the University of Michigan, published, N. Y., 1870, Christianity and Greek Philosophy; or, The Relation between Spontaneous and Reflective Thought in Greece and the Positive Teaching of Christ and his Apostles. The volume treats abundantly of modern speculation, and

with much vigor. The second series, on Christianity and Modern Thought, is not yet published.

The contributions to periodicals and papers on speculative subjects have been very numerous. Among the journals most distinguished for papers of this description may be named: *The North American Review*, *The Christian Examiner*, *Brownson's Quarterly Review*, *The Quarterly Christian Spectator*, *The Christian Review*, *The Princeton Review*, *The American Theological Review*, *The Methodist Quarterly Review*, *Mercersburg Review*, also *Southern Presbyterian Review*, and others. A single journal is entirely devoted to discussions of this kind—*The Journal of Speculative Philosophy*—which was commenced in 1867, in St. Louis, under the editorship of William T. Harris aided by a corps of able associates and contributors, largely familiar with German and French Philosophy.

APPENDIX II.

HISTORICAL SKETCH OF MODERN PHILOSOPHY IN ITALY.

By VINCENZO BOTTA, Ph.D.,

LATE PROFESSOR OF PHILOSOPHY IN THE ROYAL COLLEGES OF THE UNIVERSITY OF TURIN.

The Age of the Renaissance.

The rise of modern philosophy in Italy is contemporary with the Revival of Letters, when the habit of independent thought, gradually developing, asserted itself in opposition to Scholasticism. The early establishment of the Italian Republics, the growth of industry, commerce and wealth, the increasing communication with the East, the propagation of Arabic science, the influence of the Schools of Roman Jurisprudence, the gradual formation of the Italian language, and above all, the growing passion for the literature of Greece and Rome, all combined to stimulate the human mind to free itself from the servitude of prevailing methods and ideas. As early as the eleventh century, the Catharists appeared in Lombardy, and extending throughout the Peninsula under various names, such as Paterini, Templari, Albigesi, Publicani and others, remained for three centuries the unconquered champions of intellectual liberty. At the beginning of the twelfth century, a numerous and powerful School of philosophers, embracing the most prominent representatives of the Ghibelline party, labored so persistently for freedom of thought and expression, that it was denounced by the Church as a School of Epicureans and Atheists. Foremost among these, according to Dante, himself a Ghibelline, was the Emperor Frederick II., the patron of the Arabian scholars, a poet, a statesman and a philosopher; his friend, Cardinal Ubaldini; Farinata degli Uberti, a hero in war and peace; Brunetto Latini, the teacher of Dante; and Guido de' Cavalcanti, "the physicist, the logician and Epicurean," as a contemporary biographer calls him. Meanwhile Arnaldo da Brescia strove to extend to the field of politics the philo-

sophical revolution which had so early begun, and which was now sustained by secret societies widely spread throughout the Peninsula, alluded to in the early poem of St. Paul's Descent to the Infernal Regions. To the same object of intellectual emancipation were directed the religious and social movements, which distinguished the history of the twelfth and thirteenth centuries, headed by such Reformers as Giovanni da Parma, Gerardo di San Donnino, Marsiglio di Padova, Ubertino di Casale, Valdo, and Frà Dolcino.

But as a promoter of freedom in philosophy as well as in political science, Dante (1265–1321) stands preëminent in the history of his country. He was the first to construct a philosophical theory of the separation of the State from the Church in his *De Monarchia*, in which he advocated the independence of the civil power from all ecclesiastical control; he also opposed the Papal power in immortal strains in the *Divina Commedia;* and, under the popular symbols of the age, strove to enlarge the idea of Christianity far beyond the limits, to which it was confined by the Scholastics. Petrarch (1304–74) boldly attacked Scholasticism in every form, denounced the Church of Rome as "the impious Babylon which has lost all shame and all truth," with his friend Boccaccio devoted himself to the publication of ancient MSS., and labored throughout his life to excite among his contemporaries an enthusiasm for Classic Literature. His works *De Vera Sapientia; De Remediis Utriusque Fortunæ; De Vita Solitaria; De Contemptu Mundi*, blending Platonic ideas with the doctrines of Cicero and Seneca, were the first philosophical protest against the metaphysical subtilties of his age. Thus the fathers of Italian literature were also the fathers of the revolution which gave birth to modern philosophy.

The study of the original writings of Plato and Aristotle, and the introduction of an independent exegesis of the ancient philosophers, soon produced a still more decided opposition to Scholasticism; a movement aided by the arrival of Greek scholars in Italy before, and after the fall of Constantinople. Prominent among these, were the Platonists Georgius Gemistus Pletho and Cardinal Bessarion, and the Aristotelians Theodorus Gaza and Georgius of Trebizond, who placed themselves at the head of the philosophical revival in Italy. While Platonism became predominant in Tuscany under the patronage of Cosimo de' Medici, the influence of Marsiglio Ficino, and the Platonic Academy founded by the former in Florence, Aristotelianism extended to the

Universities of Northern Italy and particularly to those of Padua and Bologna, taking two distinct forms, according to the sources from which the interpretation of Aristotle was derived. The Averroists followed the great commentary of Averroes, and the Hellenists, or the Alexandrians, sought the spirit of the Stagirite in the original, or in his Greek commentators, chief among whom was Alexander of Aphrodisias. The Averroistic School, mainly composed of physicists and naturalists, was the most decided opponent of the Scholastic system in its relation to theology. Indeed, medicine, Arabic philosophy, Averroism, astrology, and infidelity, early in the Middle Ages had become synonymous terms. Pietro d' Abano, who flourished at the beginning of the fourteenth century, and who may be considered as the founder of the Averroistic School in Italy, was one of the first who asserted, under astrological forms, that religion had only a relative value in accordance with the intellectual development of the people. He was arrested by the order of the Inquisition; but he died before sentence was passed upon him; his body was burnt, and his memory transmitted to posterity as connected with infernal machinations. In 1324 Cecco d' Ascoli, a professor in the University of Bologna and a friend of Petrarch, was condemned to burn all his books on astrology, and to listen every Sunday to the sermons preached in the church of the Dominicans. Later he was burnt at the stake, and his picture appears in one of the many Infernos painted on the walls of the Italian churches by Orcagna. The eternity of matter and the unity of human intellect were the two great principles of the Averroistic doctrine; hence the negation of creation, of permanent personality and of the immortality of the soul became its principal characteristics. Although some of the writers of this School endeavored to reconcile its doctrines with the dogmas of the Church, others accepted the consequences of its philosophy, and boldly asserted the eternity of the universe and the destruction of personality at death. Frà Urbano di Bologna, Paolo of Venice, Nicola da Foligno, Cassandra Fedele, and many others, were among the first; among the second may be mentioned Nicoletto Vernias, Tommaso Cajetano and above all Pietro Pomponacci (1462–1530), with whom began a new period in the development of Anti-Scholastic philosophy.

Hitherto the followers of Averroism had confined their teaching to commentaries upon the great Arabian philosopher; but with Pomponacci philosophy assumed a more positive and independent character,

and became the living organ of contemporary thought. Indeed, while he adhered to the Averroists in his earnest opposition to Scholasticism, he was a follower of the Alexandrians in certain specific doctrines. Thus on the question of the immortality of the soul, which so agitated the mind of the age, while the Averroists asserted that the intellect after death returned to God and in time lost its individuality, Pomponacci with the Alexandrians rejected that compromise, and openly denied all future existence. He held that the origin of man was due to the same causes which produced other things in nature; that miracles were but illusions, and that the rise and the decadence of religion depended on the influence of the stars. It is true that he insisted on the opposition of philosophy and faith, and thought that what was true in the former might be false in the latter, and *vice versâ;* a subterfuge, into which many philosophers of the Middle Ages were forced by the dangers, to which they were exposed. Pomponacci was the author of many works, one of which, *De Immortalitate Animæ*, was burnt in public. His most celebrated disciples were Ercole Gonzaga, Paolo Giovio, Simone Porta, and Grattarolo. His opponents were Achillini, Nifo, Castellani and Gaspare Contarini, all moderate Averroists, who strove to reconcile Christianity with natural philosophy; an effort, in which they were joined by Zimara, Zabarella, Pendasio and Cremonini. Among the Hellenists, who maintained in part the opinions of Pomponacci, was Leonico Thomeo (1456–1531), a physician, and professor in the University of Padua, who, on account of the vivacity of his polemic against Scholasticism, the Hippocratic character of his doctrines, and the beauty of his style, may be considered as the founder of Hellenic criticism and naturalism in the Age of the Renaissance. To the same class of writers, although neither pure Hellenists nor Averroists, belong Giovanni Pico della Mirandola (1463–94) and Cardano (1501–76), who strove to substitute in place of Scholasticism philosophic systems founded partly on Christianity, and partly on Platonic ideas, or on doctrines derived from the Cabala and astrology; Cesalpino (1509–1603), who constructed a pantheistic philosophy on Averroistic ideas, and Vanini (1585–1619), who for advocating a system of naturalism was burnt at the stake. Other writers opposed contemporary philosophy chiefly for the barbarous form, in which it was expressed, such as Lorenzo Valla, Poliziano, Barbaro, Nizolio, and Ludovico Vives.

But a more effectual opposition to Scholasticism was due to

the introduction of the experimental method into scientific investigations, which was first inaugurated by Leonardo da Vinci (1452–1519), the artist, the poet, the mathematician and the philosopher, who, as Hallam says, "within the compass of a few pages anticipated almost all the discoveries which have been made in science, from Galileo to the contemporary geologists." Nizolio, Aconzio, Erizzo, Mocenigo and Alessandro Piccolomini continued the work of da Vinci in insisting on the application of the experimental method in philosophy. This application was partially at least attempted by Telesio (1508–88), and by Patrizi (1529–76), who opposed Scholasticism by striving to create a philosophy founded on nature. Giordano Bruno (1548–1600) boldly undertook the philosophical reconstruction of Mind and Nature on the basis of the unity and the universality of substance; while Tommaso Campanella (1568–1639) established his philosophy on experience and consciousness. To promote this scientific movement learned associations everywhere arose; the "Academia Secretorum Naturæ" was instituted at Naples by G. B. Porta in 1560; the Telesiana was established by Telesio in the same city; the Lynchean was founded in Rome by Prince Frederick Cesi in 1609, and the Academia del Cimento in Florence in 1637. Meantime the opposition to Scholasticism extended to the field of politics, where Machiavelli (1469–1527) established the principles of that policy, which in less than four centuries was destined to triumph in the establishment of Italian unity on the ruins of papal sovereignty, a policy which found a powerful impulse in the religious revolution attempted by Savonarola (1452–98), a still more effectual aid in the invention of the art of printing, and a pledge of its final triumph in the great Reformation of the 16th century. In vain the sacerdotal caste persecuted and imprisoned the philosophers and reformers, and burnt them at the stake; in vain it strove to drown philosophical liberty in blood. The opposition increased and reappeared in the writings of Guicciardini the historian (1482–1560), and of Paolo Sarpi (1552–1623), the bold defender of the Republic of Venice against the encroachments of the Papal See, the philosopher and the naturalist, to whom many discoveries in science are attributed. The political writings of Donato Giannoti, of Paolo Paruta, and Giovanni Bottero, in the last part of the sixteenth century, which were devoted to the emancipation of society from the authority of the Church, close the period which had opened with the aspirations of Dante and

Petrarch, and was now crowned by the martyrdom of Giordano Bruno and Lucilio Vanini.

For the exposition of the doctrines of the Italian philosophers of the Renaissance, the reader is referred to Ueberweg's statements, pp. 5–14 and 19–31 of this volume. See further: Tiedemann, *Geist der Speculativen Philosophie;* John G. Bühle, *Gesch. der neueren Philos.;* W. G. Tennemann, *Geschichte der Philosophie;* H. Ritter, *Geschichte der Philos.; Supplementi alla Storia della Filosofia di Tennemann*, by G. D. Romagnosi and B. Poli; T. Mamiani, *Rinnovamento della Filosofia antica Italiana;* B. Spaventa, *Carattere e sviluppo della Filosofia Italiana dal Secolo 16° fino al nostro tempo*, 1860. On the philosophy of Dante, see A. F. Ozanam, *Dante et la Philosophie Catholique au 13e Siècle*, 1845, transl. by Boissard, Lond. 1854; N. Tommasèo, *La Commedia di Dante*, 1854; G. Frapporti, *Sulla Filosofia di Dante*, 1855; Ugo Foscolo, *Discorso sul testo del Poema di Dante*, 1825; G. Rossetti, *Commento analitico della Divina Commedia*, 1827; H. C. Barlow, *Critical, Historical, and Philosophical Contributions to the Study of the Divina Commedia*, 1864; V. Botta, *Dante as Philosopher, Patriot and Poet*, New York, 1865; Maria Francesca Rossetti, *A Shadow of Dante*, Boston, 1872, and the valuable works written on the Italian poet by Schlosser, Kopish, Wegele, Blanc, Göschel, Karl Witte, and Philalethes (the present King John of Saxony). On Petrarch, see T. Bonifas, *De Petrarca Philosopho*, 1863, and Maggiolo, *De la Philosophie morale de Petrarque*, 1864. On the opposition of Petrarch to Scholasticism *cf.* Renan's *Averroes et l'Averroisme*, 1852, 2e Partie, ch. III. 3.

Towards the end of the twelfth century the doctrines of Averroes were introduced into the Peninsula from Spain and Sicily, where appeared the first translations of the commentary of the Arabian philosopher. They soon became naturalized in the Universities of Padua, Bologna, and Ferrara, and the absorbing subject of lectures and discussions for three or four centuries. The principal lecturers belonging to this School were Pietro d'Abano (d. 1315), the author of *Conciliator differentiarum Philosophorum et Medicorum;* Giovanni di Gonduno (fl. in 1328), whose *Quæstiones et Commenta* on Aristotle, Averroes, and Pietro d'Abano are extant in the national library of Paris, some of which were published in Venice, 1488, 1496, and 1501; Frà Urbano da Bologna (fl. 1334), who wrote a voluminous commentary of the work of Averroes on the book of Aristotle, *De Physico Auditu;* it was published in Venice, 1492, with a preface of Nicoletto Vernias; Paolo di Venezia (d. 1429), the author of *Summa totius Philosophiæ*, who defended the doctrines of Averroes in the presence of eight hundred Augustinians against Nicola Fava, the Hellenist; Gaetano Tiene (fl. 1436), Tiberio Bazilieri, Nicola di Foligno, Ugo di Siena, Marsiglio di Santa Sofia, Giacomo di Forlì, Tommaso de Vio Cajetano, Nicoletto Vernias and many others have left voluminous MSS. in the libraries of Venice, Padua, and Bologna, as witnesses of their devotion to the ideas of the great Arabian philosopher. Cassandra Fedele, a learned lady of Venice, defended in 1480 a series of Averroistic theses in the University of Padua, and obtained the degree of doctor of philosophy.

Pomponacci may be classed among the Averroists, as far as he believed in the existence of a radical antithesis between religion and philosophy; he, however, rejected the fundamental principle of Averroism, the unity of the intellect, and in this respect he belonged to the Alexandrian School. He was the author of several works: *De Immortalitate Animæ; De Fato; De Libero Arbitrio; De Prædestinatione; De Providentia Dei*, and *De naturalium effectuum admirandorum causis, scilicet de Incantationibus.* Alessandro Achillini was one of his opponents, and the School of Padua has left no record more celebrated, than that of the public discussions held by those two philosophers. Achillini's works were published in Venice, 1508. In 1509 the two adversaries having been obliged to leave Padua, established themselves in Bologna, where they continued their disputations till the occurrence of their death, about 1520. Agostino Nifo (1473–1546) was another opponent of Pomponacci; at the request of pope Leo X. he wrote his *De Anima;* which gave occasion to Pomponacci to publish his *Defensorium contra Niphum;* Nifo was also the author of *Dilucidarium Metaphysicarum Disputationum.* I. A. Marta in his *Apologia de Animæ Immortalitate*, Cardinal Gaspare Contarini in his *De Immortalitate Animæ*, and several others strove to confute the doctrines of Pomponacci on the mortality of the soul. He was defended by several of his pupils, and particularly by Simon Porta (d. 1555) in his *De Anima, de Speciebus intelligibilibus.* S. Porta was also the author of *De Humana Mente Disputatio*, 1551; *De Rerum Naturalium Principiis*, 1561; *De Dolore; An homo bonus vel malus volens fiat*, 1551. In 1512 the Lateran Council condemned both those, who taught that the human soul was not immortal, and those who asserted that the soul is one and identical in all men. It condemned also the philosophers who affirmed that those opinions, although contrary to faith, were philosophically true. It enjoined professors of philosophy to refute all heretical doctrines to which they might allude, and prohibited the clergy to study philosophy for a course longer than five years. Indeed, Averroism as early as the thirteenth century had become hostile to the doctrines of the Church, and in 1271, and again in 1277, it was condemned by Stephen Tempier, archbishop of Paris, who caused its principles to be embodied in distinct propositions. Among these were the following: *Quod sermones theologici sunt fundati in fabulis. Quod nihil plus scitur propter scire theologiam. Quod fabulæ and falsa sunt in lege Christiana, sicut et in aliis. Quod lex Christiana impedit addiscere. Quod sapientes mundi sunt philosophi tantum.* Notwithstanding the condemnation of the Church, those ideas seemed to have taken hold of the philosophical mind of the age, and long continued to find favor among teachers and students. There were, however, philosophers who, adhering to the doctrines of Averroes, strove to blend them with the standard of an orthodox creed. Among them Marc-Antonio Zimara (d. 1552) in his *Solutiones contradictionum in dicta Aristotelis et Averrois*, Antonio Posi di Monselice, Giulio Palamede, Bernandino Tomitano di Feltre and several others in the beginning of the sixteenth century. Meantime new translations and new editions of the works of Averroes, more correct and more complete, appeared, due to the labors of G. B. Bagolini of Verona, Marco Oddo, Giacobbe Mantino, Abramo de Balmes, Gian Francesco Burana and others. Giacomo Zabarella, from 1564 to 1589, followed Averroes in his lectures at the University of Padua, and found an opponent in Giovanni Francesco Piccolomini; Federico Pendasio strove to blend Averroism with Alexandrianism, and Cesare Cremonini (1552–1631), the last representative of Averroism in Italy, gave new forms and new tendencies to the doctrines of his master. His lectures are preserved in the library of St. Marc in Venice, and form twenty-four large volumes. *Cf. Pietro Pomponacci, Studi Storici sulla Scuola di Bologna e di Padua* by Francesco Fiorentino, 1868; *P. Pomponacci* by B. Podestà; and *P. Pomponacci e la Scienza* by Luigi Ferri, published in the *Archivio Storico Italiano*, 1871.

Hellenic Aristotelianism, not less than Averroism, was a step toward the emancipation of the human intellect. The same object was greatly promoted by the School of Humanists, represented by L. Valla, Poliziano and L. Vives, and by the Platonic revival through the Academy of Florence, and the translations and the works of Marsiglio

Ficino; *cf.* Tiraboschi's *Storia della Letteratura Italiana;* Heeren's *Geschichte des Studiums der classischen Literatur seit dem Wiederaufleben der Wissenschaften*, 1797–1802; Renan's op. c.; I. Burckhardt's *Die Cultur der Renaissance in Italien*, 1869; Von Alfred von Reumont's *Geschichte der Stadt Rome* 1869; I. Zeller's *Italie et la Renaissance* 1869; and the Edinburgh Review, July 1872: *The Popes and the Italian Humanists.* The Humanist revival, properly speaking, commenced with the advent to Florence of Manuel Chrysoloras in 1396; and it was promoted and illustrated by the researches and the writings of many scholars, such as Poggio, Filelfo, Aretino, Valla, Traversari, Vegio, and Tommaso di Sarzana, who afterwards became Pope under the name of Nicholas V. The Council of Constance, 1414–18, contained among its members several of the most learned humanists of the age, and for a time the Papal See was at the head of the movement for the revival of the study of classical literature. Prominent among the popes who promoted that revival were Nicholas V., already mentioned, Martin V., Eugene IV., Pius II., known under the name of Enea Silvio Piccolomini, and Leo X. To this revival may also be referred the origin of the Academical bodies and literary associations which formed so characteristic a feature of the literary life of Italy of that time. Of these associations, those which held their meetings in Florence, at the Camaldolese Convent degli Angeli and at the Augustine Convent dello Spirito, were the most celebrated. The controversy between the Platonists and Aristotelians of the Age of the Renaissance is described in *De Georgii's Diatriba* by Leo Allatius in Script. Bizant.; in Boivin's *Querelle des Philosophes du XV. Siècle* (Mémoires de littérature de l'Académie des Inscriptions, vol. II.), and in *Gennadius and Pletho, Aristotelismus und Platonismus in der Griechischen Kirche*, by W. Gass, 1844.

The following are the works of L. Thomeo, the Hellenist: *Aristotelis Stagiritæ parva quæ vocant naturalia*, 1530. *Dialogi de Divinatione; De Animorum Immortalitate; De Tribus Animorum Vehiculis; De Nominum Inventione; De Precibus; De Compescendo Luctu; De Ætatum Moribus; De Relativorum Natura; De Animorum Essentia*, 1530. Giovanni Pico della Mirandola wrote *De Ente et Uno:* Twelve books *against Judiciary Astrology; Heptaplon*, or a treatise on *Mosaic Philosophy; Regulæ dirigentis hominem in pugna spirituali*, and *Nine hundred Theses* on Dialectics, moral, physical, and mathematical sciences, which he defended in public in Rome. His nephew, Giovanni Francesco Pico, held the same doctrines, and wrote in defence of the book *De Ente et Uno. Cf. Das System des John Pico von Mirandola*, by Georg Dreydorff, 1858. Girolamo Cardano wrote many works, which were published in ten volumes in quarto in 1663; the principal ones are: *De Subtilitate libri* xx.; *De Rerum Varietate.* He is celebrated for his *Formula* for solving equations of the third degree. He is also the author of an autobiography. His doctrines were refuted by Scaligero in his *Exercitationes exotericæ*, and defended by himself in his *Apologia. Cf.* Rixner's and Siber's *Beiträge zur Geschichte der Physiologie im weiteren und engeren Sinne* (*Leben und Meinungen berühmter Physiker im* 16. *und* 17. *Jahrh.*, 1819–26). Andrea Cesalpino is the author of several works on physiology and medicine, *Peripateticarum Quæstionum libri quinque*, and *Dæmonum Investigatio Peripatetica.* Lorenzo Valla wrote *Elegantiarum libri sex; Dialecticæ Disputationes*, and *De Vero Bono.* He translated also the Iliad, Herodotus, and Thucydides. Angelo Poliziano, poet and philosopher, translated the *Manual of Epictetus*, the *Questions and Problems of Alexander of Aphrodisias, the Aphorisms of Hippocrates*, and the *Sayings and the Deeds of Xenophon;* he wrote also *Parepistomenon*, in which he proposed to describe the tree of human knowledge. Ermolao Barbaro wrote on *Themistius*, and on the Aristotelian doctrine of the soul; Ludovico

Vives *De Causis corruptarum artium*, 1531; *De Initiis, Sectis et Laudibus Philosophiæ, id.; De Anima et Vita*, 1558. Of the numerous treatises of Leonardo da Vinci the greater part still remain in manuscript in the Ambrosian library at Milan. They are written from right to left, and in such manner that it is necessary to employ a glass in order to decipher them. Extracts from his MSS. were published in Paris by Venturi, 1797. Giacomo Nizolio wrote the *Antibarbarus, seu de veris principiis et vera ratione philosophandi contra Pseudo-Philosophos*, 1553; Giacomo Aconzio, *Methodus, scilicet recta investigandarum tradendarumque artium ac scientiarum ratio*, 1558 Giacomo Sadoleto, *Phædrus, seu de laudibus Philosophiæ*, 1607; Sebastiano Erizzo, *Dell' Istrumento o Via inventrice degli Antichi*, 1554; M. Antonio Mocenigo, *De eo quod est paradoxa*, 1559; Alessandro Piccolomini, *L'Istrumento della Filosofia*, 1565; *Filosofia naturale*, 1562, and *Istituzione morale.* According to Tiraboschi, A. Piccolomini was the first philosopher who used the Italian language in his writings. He was, however, preceded by T. Golferani, who long before wrote a treatise in that language, *Della Memoria locale*, 1340. Giovanni Francesco Piccolomini, a nephew of Alessandro, wrote *De Rerum Definitionibus*, 1600; and *Universa de Moribus Philosophia.* Here may also be mentioned G. B. Porta, the author of *De Humana Physiognomia*, 1586; and *De occultis literarum notis, seu De Arte animi sensi occulta aliis significandi*, 1593; G. Brisiani, *Methodus Scientiarum*, 1587; Y. Giorgio Veneto, *De Harmonia Mundi*, 1525; N. Contarini, *De Perfectione rerum, libri sex*, 1536; G. Mazzoni, *De Triplici Hominum Vita*, 1577; *De Consensu Aristotelis et Platonis*, and *In Aristotelis et Platonis universam Philosophiam Præludia*, 1597; and Valerio dic' Valerii, *Opus aureum in quo omnia explicantur, quæ Scientiarum omnium parens Raymundus Lullus tam in Scientiarum arbore, quam arte generali, tradit*, 1589.

Bernandino Telesio wrote *De Rerum Natura juxta propria principia*, 1586; *Varii de naturalibus rebus libelli*, 1590; *De his quæ in aere fiunt et de terræ-motibus. Quod animal universum ab unica animæ substantia gubernatur, adversus Galenum*, 1590. Cf. Rixter's and Siber's op. c.; also *B. Telesio* by Fiorentino, 1872. The method pursued by Telesio he himself thus describes: *Sensum videlicet et nos et naturam, aliud præterea nihil sequuti sumus, quæ summe sibi ipsæ concors idem semper, et eodem agit modo, atque idem semper operatur.* Of the origin of the world he says: *Remotissimam scilicet obscurissimamque rem et minime naturali ratione afferendam; cujus cognitio omnis a sensu pendet, et de qua nihil omnino asserendum sit unquam, quod vel non ipso, vel ipsius simile perceperit sensu.* Francesco Patrizi wrote *Discussiones Peripateticæ*, 1571; *Nova de Universis Philosophia, in qua Aristotelica methodo non per motum, sed per lucem ad primam causam ascenditur*, 1591; *Della Poetica ò la Deca istoriale*, 1586. Cf. Rixner and Siber op. cit.

Of the works of Giordano Bruno some are written in Latin and some in Italian. The former were edited by A. Wagner, Leipzic, 1829; the latter (only in part) by A. F. Gefrörer, Stuttgart, 1834. The following is the complete catalogue of his writings, classified according to their chronological order: *L'Arca di Noè*, 1570 (unpublished and lost); *De Sphæra*, 1576 (id.); *Dei Segni dei tempi*, 1576 (published and lost); *De Anima*, 1577 (unpublished and lost); *Clavis magna*, 1578; *Dei Predicamenti di Dio*, 1579; *De Umbris Idearum*, 1582; *De Compendiosa Architectura*, 1582; *Il Candelajo*, a Comedy, 1582; *Purgatorio dell' Inferno*, 1582 (unpublished and lost); *Explicatio triginta Sigillorum*, 1583; *La Cena delle Ceneri*, five dialogues, 1584; *Della Causa, Principio et Uno*, 1584; *De l'Infinito Universo e Mondi*, 1584; *Spaccio della bestia trionfante*, 1584; *Cabala del cavallo Pegaseo con l'aggiunta dell' asino Cillenico*, 1585; *Degli heroici Furori*, 1585; *Figuratio Aristotelici Auditus phys.*, 1586; *Dialogi duo de Fabricii morden-*

tis Salernitani prope divina adinventione ad perfectam Cosmimetriæ praxim, 1586; *Jord. Bruni insomnium*, 1586; *De Lampade combinatoria Lulliana*, 1587; *De Progressu et Lampade venatoria Logicorum*, 1587; *Acrotismus, seu rationes articulorum physicorum adversus Aristotelicos*, 1587; *Oratio Valedictoria Vitembergæ habita*, 1588; *De Specierum Scrutinio et Lampade combinatoria Raymondi Lullii*, 1588; *Centum et Sexaginta Articuli adversus hujus tempestatis Mathematicos atque Philosophos*, 1588; *Oratio consolatoria habita in obitu Principis Julii Brunsvicensium Ducis*, 1589; *De Imaginum, Signorum et Idearum Compositione*, 1591; *De Triplice Minimo et Mensura*, 1591; *De Monade, Numero et Figura*, 1591; *De rerum Imaginibus*, 1591 (unpublished and lost); *Libro delle sette arti liberali*, 1591 (unpublished); *Liber triginta Statuarum*, 1591; *Templum Mnemonidis*, 1591; *De Multiplici Mundi Vita*, 1591 (unpublished and lost); *De Naturæ gestibus (id.)*; *De Principiis Veri (id.)*; *De Astrologia (id.)*; *De Magia physica*; *De Physica*; *Libretto di congiurazioni*; *Summa terminorum metaphysicorum*, publ. 1609; *Artificium perorandi*, publ. 1612. Cf. *Bruno oder über das natürliche und göttliche Princip der Dinge*, by Schelling, 1802. Also the introduction of T. Mamiani to the translation of Schelling's dialogue by the Marchioness M. Florenzi Waddington; Rixter's and Siber's op. cit. Brückerii *Historia Philosophiæ*, 1744. I. G. Bühle, *Commentatio de Ortu et Progressu Pantheismi inde a Xenophone Colophonio primo ejus authore usque ad Spinozam*; Niceron, *Mémoires pour servir a l'histoire des hommes illustres*; C. Steph. Jordan, *Disquisitio de Jordano Bruno Nolano*; Guil. F. Christiani, *De Studiis Jordani Bruni mathematicis*; Kindervater, *Beiträge zur Lebensgeschichte des Jord. Bruno*, 1788; D. Lessman, *Giordano Bruno* in Cisalpinische Blätter, Tom. 1; Fülleborn, *Beiträge zur Geschichte der Philosoph.*, 1706; F. I. Clemens, *Giordano Bruno und Nicholaus von Cusa*, 1847; John A. Scartazzini, *Ein Blutzeuge des Wissens*, 1867; Ch. Barthólmès, *Jordano Bruno*, 1846–47; George Henry Lewes, *History of Philosophy*, 1868; Sigwart, *Spinoza's neuentdeckter Tractat von Gott*, 1866; A. Debs, *Jordani Bruni Vita et Scripta*, 1844; Lange, *Geschichte des Materialismus*, 1866; Domenico Berti, *Vita di Giordano Bruno*, 1868, which contains the proceedings of Bruno's trial before the Inquisition of Venice, recently discovered in the archives of that city.

Tommaso Campanella's principal works are as follows: *Universæ Philosophiæ seu Metaphysicarum Rerum juxta propria dogmata, partes tres*, 1638; *Philosophia sensibus demonstrata et in octo disputationes distincta, adversus eos qui proprio arbitratu, non autem sensata duce natura, philosophati sunt*, 1591; *Realis Philosophiæ epilogisticæ partes quatuor, hoc est de rerum natura, hominum, moribus, etc.* His *Civitas Solis*, a kind of Utopian romance, forms part of the latter work. *De libris propriis et recta ratione studendi Syntagma*, 1642; *De Sensu rerum et Magia*, 1620; *De Gentilesimo non retinendo*; *Atheismus triumphatus*; *Apologia pro Galileo*; *De Monarchia Hispanica*; *Disputationum in quatuor partes Philosophiæ Realis libri quatuor*; several philosophical poems in Latin and Italian. Cf. Baldachini, *Vita e Filosofia di* T. Campanella, 1840; A. D. Ancona, Introduction to the new edition of Campanella's works, Turin, 1854; S. Centofanti, an essay published in the Archivio Storico Italiano, 1866; Spaventa and Mamiani, op. cit.; also Sigwart, *Th. Campanella und seine politischen Ideen*, in the Preuss. Jahrb., 1866; Mlle. Louise Colet, *Œuvres choisies de Campanella*, 1844; Pierre Leroux, *Encyclopedie nouvelle*, and G. Ferrari, *Corso sugli Scrittori politici Italiani*, 1863.

L. Vanini is the author of *Amphitheatrum Æternæ Providentiæ*, 1615; *De admirandis Naturæ, Reginæ Deæque mortalium, arcanis*, 1616; *De Vera Sapientia; Physico-Magicum*; *De Contemnenda Gloria*; *Apologia pro Mosaica et Christiana lege*. Cf. W. D. Fuhrmann, *Leben und Schicksale, Charakter und Meinungen des L. Vanini*, 1800. Emilo Waisse, *L. Vanini, sa vie, sa doctrine, et sa mort*; Extrait des mémoires de l' Académie des Sciences de Toulose. Arpe, Bayle, and Voltaire in several of their works undertake the defence of Vanini. Cf. also *La Vie et les Sentiments de L. Vanini* by David Durand, 1717, and Rousselot *Œuvres Philosophiques de L. Vanini*, 1841.

Of all the editions of Machiavelli's works, that of Florence, 1813, in 8 vols. 8vo. is the fullest and the best. A new edition has been recently published in Florence partly by Lemmonier and partly by G. Barbera. Of his writings, *Il Principe*, written in 1514 and published in 1532, *I Discorsi sulle Deche di T. Livio*, and *Le Storie Fiorentine* are the most celebrated. Cf. *Geschichte der Staatswissenschaften*, by R. von Mohl, 1858; Ranke's *zur Kritik neuerer Geschichtschreiber*, 1824; Macaulay's Essay on Machiavelli in his Critical and Historical Essays; G. Ferrari in his *Corso sugli Scrittori politici Italiani*, and Pasquale St. Mancini, *Della Dottrina politica del Machiavelli*, 1852. See also the life of Machiavelli published in the Florentine edition of his works, 1792. The principal work of Francesco Guicciardini is *La Storia d'Italia*, extending from 1490 to 1534. Its best edition is that of Pisa, 1819, in 10 vols. An edition of his unpublished works has recently appeared in Florence, under the editorship of G. Canestrini. This valuable publication contains *Le Considerazioni intorno al Discorso di Nicolò Machiavelli sopra la prima Deca di T. Livio*; *I Ricordi politici e civili*; *I Discorsi politici*; *Il Trattato e i Discorsi sulla Costituzione della Republica Fiorentina e sulla riforma del suo governo*; *La Storia di Firenze*; *Scelta dalla corrispondenza ufficiale tenuta dal Guicciardini durante le diverse sue Legazioni*; and *il Carteggio*, or his correspondence with Princes, Popes, Cardinals, Ambassadors, and Statesmen of his time. Cf. Ranke's op. cit.; Thiers' *Histoire du Consulat et de l'Empire—Avertissement*; the *Preface* by G. Canestrini to the *Opere inedite di* Fr. Guicciardini, 1857, and *Storia della Letteratura Italiana*, by Paolo Emiliano Guidici, 1855, vol. 2. For the works of G. Savonarola, Paolo Sarpi, D. Giannoti, P. Paruta, and G. Bottero, cf. G. Ferrari, op. cit. Savonarola was the author of *Compendium totius philosophiæ tam naturalis quam moralis*, and of *Trattato circa il reggimento e il governo della città di Firenze*, 1542; cf. *Storia di G. Savonarola* by Pasquale Villari, 1868. Paolo Sarpi wrote *La Storia del Concilio Tridentino*, a work which has been translated into Latin, German, French, and English; also, *Opinione come debba governarsi la Republica Veneziana*, 1680, and many other works, of which a full catalogue may be found in the *Biografia di Frà Paolo Sarpi* by A. Bianchi-Giovini, 1846. The principal writings of D. Giannoti are *Della Republica di Venezia*, 1540; *Della Republica Fiorentina* and *Opuscoli*; of P. Paruta, *Perfezione della vita politica*, 1579. *Discorsi politici*, 1600; of G. Bottero, *La Ragione di Stato*, 1589. *Republica Veneziana*, 1605; *Cause della grandezza delle Città*, and *I Principi*.

The Seventeenth and the Eighteenth Centuries.

The sun of modern philosophy in Italy rose at last with Galileo Galilei (1564–1641), a native of Pisa, and the chief of the School, which a century before had begun with Leonardo da Vinci. At an early age Galileo was a professor in the Universities of Pisa and Padua, and afterwards held the office of mathematician and philosopher at the Court of Tuscany. He is the true founder of inductive philosophy Regarding nature as the great object of science, the autograph book of the Creator, he held that it cannot be read by authority, nor by any pro-

cess *à priori*, but only by means of observation, experiment, measure and calculation. While, to aid his investigations, he invented the hydrostatic balance, the proportional compass, the thermoscope, the compound microscope and the telescope, he borrowed from mathematics the formulas, the analyses, the transformation and development of his discoveries. Applying this method to terrestrial and celestial mechanics, he made important discoveries in every branch of physical science, and placed the heliocentric system on a scientific basis. Having thus given the death-blow to Scholasticism, he was arrested by the Inquisition, forced publicly to recant, and to remain under its surveillance for the rest of his life. Speaking of the comparative merit of Galileo and Bacon, Sir David Brewster says: "Had Bacon never lived, the student of nature would have found in the writings and the works of Galileo not only the principles of inductive philosophy, but also its practical application to the noblest efforts of invention and discovery." The eminent scientist Biot, while asserting the uselessness of the Baconian method, insists upon the permanent validity of that of Galileo; and Trouessart declares that in science we are all his pupils. Galileo founded a School honored by the names of Torricelli, Viviani, Castelli, Borelli, Cavalieri, Malpighi, Spallanzani, Morgani, Galvani, Volta and other eminent scientific men, who, following his method successively, took the lead in the scientific progress of Europe. It was due to this activity in science, that the Italian mind was enabled to resist the oppressive influence of the political and ecclesiastical servitude, under which Italy labored in the seventeenth and eighteenth centuries; and it was through the example of Galileo, that physical science never became so predominant, as to exclude the study of philosophy. Throughout his works he loses no occasion to insist on efficient and final causes, and on the infinite difference which exists between the divine and the human intelligence; and while he deprecates the scepticism, which denies the legitimate power of reason, he rejects pure rationalism, which knows no limit for human knowledge. He asserts that beyond all second causes, there must necessarily exist a First Cause, whose omnipotent and allwise creative energy alone can explain the origin of the world; and he professes faith in that Divine Providence which embraces the universe as well as its atoms, like the sun which diffuses light and heat through all our planetary system, while at the same time it matures a grain of wheat as perfectly, as if that were the only object of its action.

The works of Galileo have recently been published in a complete edition, 16 vols., under the editorship of Prof. Eugenio Alberi; *Le Opere di Galileo Galilei, prima edizione completa, condutta sugli autentici Manoscritti Palatini*, Firenze, 1842–56. This edition contains the life of Galileo, written by his pupil Viviani. Among his biographers and critics may be mentioned Ghilini in his *Teatro di uomini letterati*, 1647; G. V. Rossi in his *Pinacotheca Illustrium Virorum*, 1643–48; P. Frisi, *Elogio di Galileo*, 1775, which was translated into French and inserted in the *Supplement de l'Encyclopédie* de Diderot and D. Alembert; J. Andrès in his history of literature and in *Saggio della Filosofia di Galileo*, 1776; L. Brenna, *Vita di Galileo*, 1778, which was inserted in the work of Fabroni: *Vitæ Italorum doctrina excellentium qui Sæculis* xvii. et xviii. *floruerunt*, 1778–1805; T. Tozzetti, in his *Notizie degli aggrandimenti delle Scienze fisiche in Toscana*, 1780, in which he published the life of Galileo written by Gherardini, his contemporary; C. Nelli, *Vita e Commercio letterario di Galileo*, 1797; Bailly, *Histoire de l'Astronomie moderne;* G. Tiraboschi, *Storia della Letteratura Italiana*, 1826–36; Montucla, *Histoire des Mathematiques*, 1799; Libes, *Histoire Philosophique de Progrès de la Physique*, 1810; M. T. Biot, Article *Galileo* in *Biographie universelle*, published by Michaud; A. Barbier in his *Examen critique et complement des Dictionnaires Historiques les plus repandus*, 1820; Lord Brougham, *Life of Galileo*, 1829; M. Salfi, in his continuation of the *Histoire littéraire d'Italie* de Ginguenè, 1834; G. Cuvier, *Histoire des Sciences Naturelles*, 1841; M. Libri, *Histoire des Sciences Mathématiques en Italie*, 1841; Sir David Brewster, *Lives of Copernicus and Galileo* (*Edinburgh Review*, 1830), *Life of Newton*, 1855, and the *Martyrs of Science*, 1846; B. Boncompagni, *Intorno ad alcuni avanzamenti della Fisica in Italia nei Secoli 16° e 17°*, 1846; Whewell, *History of the Inductive Sciences*, 1837; M. Marini, *Galileo e l'Inquisizione*, 1850; D. Rezzi, in the *Atti dell' Academia Pontificia dei nuovi Lincei, Dicembre*, 1851; A. de Reumont, *Galilei und Rom*, published in his *Beiträge zur Italienischen Geschichte*, 1853; Ph. Chasles, *Galileo Galilei, sa Vie, son Procès et ses Contemporains*, 1861; Madden, *Galileo and the Inquisition*, 1863; J. Bertrand, in his *Les Fondateurs de l'Astronomie moderne*, 1865; Trouessart, in his *Galilée, sa Mission scientifique, sa Vie et son Procès*, 1865; Panhappe, *Galilée, sa Vie, ses Découvertes et ses Travaux*, 1866; Henry de l'Epinois, *Galilée, son Procès, sa Condamnation, d'après des documents inédits*, 1867, in the *Revue des Sciences Historiques;* M. L. de la Rallaye, *Galilée, la Science et l'Eglise*, 1867, in the *Revue du Monde Catholique;* Chr. J. Jagemann, *Geschichte des Lebens und der Schriften des Galileo Galilei*, 1784; Drinkwater, *Life of Galileo;* Selmi, *Nel Trecentesimo Natalizio di Galileo in Pisa*, 1864; P. Feliciani *Filosofia Positiva di Galileo*, 1868; E. Wohlwill, *Der Inquisition—Process des G. G.*, 1870; *Galileo and his Condemnation*, Rambler (Lond.), Jan. 1852; *Case of Galileo*, *Dublin Review*, Oct. 1865—specially worthy of consultation; *The Martyrdom of Galileo*, *North British Review*, Nov. 1860, in reply to Biot in the *Journal des Savants*, 1858; Abbé Castelnau, *Vie, Travaux, Procès*, etc. *de Galil.*, Paris, 1870. Th. Henry Martin, *Galilée et les Droits de la Science*, 1868. Galileo's "System of the World" was translated into English by Thomas Salusbury, fol. Lond., 1641.

Giovanni Battista Vico, as the founder of the philosophy of history, (1668–1744) stands foremost among the philosophers of modern times. He was born in Naples, and early devoted himself to the study of law, philosophy, philology and history. Living in an age when the philosophy of Descartes had become popular in Italy, he attacked the psycho-

logical method as the exclusive process of philosophic investigation, maintained the validity of common sense, and upheld the importance of historic and philological studies. His writings, *De Ratione Studiorum*, 1708, *De Antiquissima Italorum Sapientia*, 1710, and *Jus Universale*, 1720, containing his *De Uno et Universi Juris Principio et Fine*, his *De Constantia Philosophiæ* and *De Constantia Philologiæ*, form a sort of introduction to his *Principii di Scienza Nuova*, 1722, in which he develops his theory of the history of civilization. Of this work, twice re-written, he published two editions, one in 1730, and another in 1744. In his introductory writings he discusses the question of method, particularly as applied to moral and juridical science, and strives to evolve a metaphysical theory from the analysis of the roots of the Latin language and from the general study of philology, which, according to him, embraces all the facts of historical experience. Knowledge consists essentially in a relation of causality between the knowing principle and the knowable; since the mind can only know that, which it can produce through its own activity; that is to say, the mind can only know those data of experience, which it can convert into truth by a process of reason. This conversion, in which, according to Vico, lies the principle of all science, neither the psychological method, nor the geometrical process introduced by Descartes, can effect; it can only be produced by a method in which certainty and truth, authority and reason, philology and philosophy become united and harmonized, so as to embrace the necessary principles of nature as well as the contingent productions of human activity. To establish a fact which may be converted into truth, to find a principle which has its basis in experience and common sense, yet is in harmony with the eternal order of the universe, is the problem of metaphysics. This fact or this principle, according to Vico, is to be found in God alone, the only true "Ens," who, being an infinite cause, contains in himself all facts and all intelligence. Thus Divine Providence, acting in no mysterious way, but through the spontaneous development of human activity, is the basis of all history, which reveals itself in the evolution of language, mythology, religion, law and government.

Whether we accept the Mosaic account, which points out a state of degradation as a consequence of the Fall, or admit a primitive condition of barbarism, it is certain that at a remote period the human race was in a condition not far above that of the brutes. Gigantic in stature, their bodies covered with hair, men roamed through the forests which

covered the earth, without family, language, laws, or gods. Yet within them, though latent, there were the principles of humanity, sympathy sociability, pudor, honor and liberty, which, called forth by extraordinary events, gradually raised them from animality to the first condition of human beings. This awakening was caused by terrific phenomena of nature, which, stimulating the mind to consciousness, brought a portion of mankind under the influence of a supernatural power, and induced a number of individuals, male and female, to take refuge in caverns and to commence the formation of families. From this point the dynamic process of civilization was subject to certain laws, which have presided over the development of all history. Prominent among these laws is that which has produced the universal belief of all people in the great principles of religion, marriage and burial, which from the first became the true *fœdera humanitatis*. This law manifests itself in all the progress of civilization, which is divided into three different ages, the divine, the heroic, and the human. The divine age is the first stage of civilization, when the chief of the family is king and priest, ruling over his subordinates as the delegate of heaven. It is the age of the origin of language, rude and concrete; the age of sacred or hieroglyphic characters; of right identified with the will of the gods, and of a jurisprudence identified with theology,—the age of idolatry, divination, mythology, auspices and oracles. The heroic age has its birth when that portion of mankind which had remained in a savage condition, seeks refuge from the violence of their companions, still more degraded than themselves, in the homes of those families already established, and at the feet of the altars erected on the heights. The new-comers are admitted into the family on condition of becoming servants of their defenders, who now claim to be the offspring of the gods, and heroes by right of birth and power. Thus the primitive families are the rulers of the community, enjoying rights which are not accorded to slaves—such as the solemnity of marriage, the possession of land, etc. Gradually the number of slaves increases; they become restless under the domination of their masters, who after long struggle are finally constrained to grant them some of their rights. Hence the origin of agrarian laws, patronages, serfs, patricians, vassals, and plebeians, and with them the rise of cities, subject to aristocratic government. Meantime language, losing some of its primitive rudeness, becomes imaginative and mythologic; its characters become more fantastic and universal; law is no longer from the gods, but from

the heroes, though still identified with force; and the duel and retaliation take place of sacerdotal justice. In this period the predominance of imagination is so great, that general types become represented by proper names, and accepted as historical characters. Thus the inventive genius of Egyptians finds a personification in Hermes, the heroism of ancient Greece in Hercules, and its poetry in Homer. So Romulus and the other kings of ancient Rome, in whom periods of civilization have been personified, descend to posterity as historical characters.

With the gradual development of democracy the human age appears; and with it aristocratic or democratic republics and modern monarchies, established more or less on the equality of the people. Language becomes more and more positive, and prose and poetry more natural and more philosophic; religion loses a great part of its mythological character, and tends to morality and to refinement. Civil and political equality is extended, natural right is considered superior to civil legality, and private right becomes distinguished from public. In the perfection of democratic governments there is only one exception to equality, and that is wealth. But wealth is the cause of corruption in those who possess it, and of envy and passion in those who desire it. Hence abuse of power, discords, insurrections, and civil wars, from which monarchy often arises as a guarantee of public order. Monarchy failing, the country which is rent by corruption and anarchy will finally fall by conquest, or, in the absence of conquest, it will relapse into a state of barbarism equal to that which preceded the divine age, with the only difference that the first was a barbarism of nature, the second will be a barbarism of reflection; the one is ferocious and beastly, the other is perfidious and base. Only after a long period of decadence will that nation again begin the course of civilization, passing through its different stages, liable again to fall and rise, thus revolving in an indefinite series of "Corsi" and "Ricorsi," which express the static and the dynamic conditions of human society.

This theory was evolved by Vico from the history of Rome, making that the typical history of mankind, whose principal features are repeated in the histories of all nations. Thus the same law manifests itself again after the fall of the Roman empire, when in the dark, the middle ages, and modern times, the divine, the heroic, and the human ages reappear. Civilization therefore in a given people, that is to say, their progress from brutal force to right, from authority to reason, and from selfishness to justice, is

not the work of legislators and philosophers, not the result of communication with other communities; but it is the spontaneous growth of their own activity working under the influence of exterior circumstances. The primitive elements of their civilization are found only in the structure of their language and mythology, their poetry and traditions. The "Scienza Nuova," according to Vico, may be regarded as a natural theology, for it shows the permanent action of Divine Providence in human history; and as a philosophy, for it establishes the basis of the origin and the development of human society, points out the origin of its fundamental ideas, and distinguishes the real from the mythical in the history of nations. This distinction, so far as it regards the history of Rome, has been fully confirmed by the more recent researches of Niebuhr, Schwegler, and Mommsen. The book of Vico may also be regarded as the natural history of mankind and a philosophy of law, for it gives the principles of all historical development and the genesis of the idea of natural right, as deduced from the common wisdom of the people.

The complete edition of the works of Vico in 6 vols. was published in Milan, 1852–54 (Second Edition), under the editorship of G. Ferrari, the author of *La Mente di G. B. Vico*, 1834, an important work on the New Science. G. Del Giudice published in 1862, *Scritti inediti di Vico*. Vico's philosophy gave birth to a considerable branch of literature containing writings of criticism and exegesis. Among his contemporary opponents may be mentioned Damiano Romano in his *Difesa Storica delle Leggi Greche venute a Roma, contro l'opinione moderna del Signor Vico*, 1736, and in his *Lettere sul terzo principio della Scienza Nuova*, 1749, in which he defends the Greek origin of the laws contained in the XII. Tables, and opposes the theory on spontaneous formation of language and civilization. He is also the author of *Scienza del Diritto Publico*, of the *Origine della Società* and other works, in which he holds doctrines antagonistic to those of Vico. Finetti in his *De Principiis Juris Naturae et Gentium adversus Hobbesium, Pufendorfium, Wolfium et alios*, 1777, and in his *Sommario dell' opposizione del sistema ferino, e la falsità dello stato ferino* attacks the doctrines of Vico on the origin of civilization. His defense was undertaken by Emanuele Duni in his *Origine e progressi del cittadino, e del governo civile di Roma*, 1768, and in his *La Scienza del Costume ossia Sistema del Diritto Universale*, 1775; also by Ganassoni in his *Memoria in difesa del Principio del Vico sull' origine delle* XII. *Tavole*; and Rogadei in his *Dell' antico stato dei popoli d'Italia Cistiberina*. Among Vico's followers and imitators may be mentioned Giacomo Stellini, in his *De Ortu et Progressu morum*, 1740, and in his *Ethica*, 1764; Mario Pagano, the patriot who suffered death for his adhesion to the Parthenopean Republic, in his *Saggi politici dei Principii, Progresso e Decadenza delle Società*, 1785; Vincenzo Cuoco, in his *Platone in Italia*, 1804; Gaetano Filangeri, in his *Scienza della legislazione*, 1780–85, who adopts many of the principles of Vico, and particularly that of the original incommunicability of primitive myths among different people, and spontaneous origin of historical manifestations; and Melchiore Delfico who, in his *Ricerche sul vero carattere della Giurisprudenza Romana e de' suoi cultori*, 1796, exaggerates the princi-

ples of Vico and falls into a system of historical scepticism. Ugo Foscolo in his *Discorso dell' Origine e dell' Uffizio della Letteratura* adopted the doctrines of Vico on the origin and the nature of language as well as society and civil government. Cataldo Janelli, one of the most eminent critics of Vico, in his *Sulla Natura e Necessità della Scienza delle Cose e delle Storie umane*, 1817, gives the critical analysis of the historical Synthesis, as expressed in the *Scienza Nuova*, of the original and spontaneous growth of different civilizations. He introduces the three ages of the senses, imagination and reason in history, corresponding to the divine, heroic, and human ages of Vico, and characterizes the last age by the development of *Telosofia* and *Etiologia*, the former the science of finalities, the latter that of causalities. G. D. Romagnosi in his *Osservazioni sulla Scienza Nuova*, 1821, and other works, examines the doctrines of Vico from a critical point of view, and while he accepts some of his principles he rejects his fundamental idea of the spontaneity of the growth of civilization, and holds that this is always the result of a derivation from another people. Luigi Tonti in his *Saggio sopra la Scienza Nuova*, 1835, makes a philosophical exposition of the doctrines of Vico, and dwells particularly on the relations existing between Vico, Machiavelli, Gravina, Herder, and other jurists and philosophers. F. Predari undertook the edition of Vico's works in 1835, but he published only one volume, in which he gave an historical analysis of Vico's mind in relation to the science of civilization. C. Cattaneo, in his *Vico e l' Italia*, 1862 (in the *Politecnico*), holds that Vico succeeded in fusing together Machiavelli's doctrine of the supremacy of self-interest with that of the supremacy of reason, as defined by Grotius. N. Tommasèo, in *Studi critici*, 1843, maintains that the idea of progress is apparent in the *Scienza Nuova*, in which, although the course of history is fixed within the limits of a certain orbit determined by the law of the *Corsi* and *Ricorsi*, this orbit is not limited, and may become wider and wider in the progress of time. T. Mamiani, in his *Rinnovamento della Filosofia antica Italiana*, 1834, adopted the criterium of the conversion of fact into truth as expressed by Vico, his doctrine on the unity, identity, and continuity of force, the spontaneity of motion as belonging to a principle inherent to every atom independently of the mass, and the idea of the indivisible, indefinite, and immovable, as evolved from phenomenical reality. And so Rosmini and Gioberti have in their various works endeavored to bring his authority to the support of their theories, while S. Centofanti, in his *Formola logica della Filosofia della Storia*, 1845, follows Vico in considering historical reality in its ideal genesis, in ascending from experience to the philosophical idea of history, and in connecting under one principle the cosmic, psychologic, and social orders. F. Carmignani, in his *Storia dell' Origini e dei Progressi della Filosofia del Diritto*, 1851, attributes to him the origin of a true philosophy of jurisprudence, and E. Amari, in his *Critica di una Scienza delle legislazioni comparate*, 1857, gives a complete analysis of his doctrines having relation to the philosophical and historical department of comparative legislation. A. De Carlo, in his *Filosofia secondo i Principii di Vico* and *La Mente d'Italia e G. B. Vico*, 1855; Vito Fornari, in his *Della Vita di Cristo*, 1869; G. Zocchi, in his *Studi sopra T. Rossi*, 1865; A. Galasso, in his *Del Sistema Hegeliano*, 1867, and *Del Metodo Storico del Vico*, 1868; B. Spaventa, Fiorentino, Vera, Bertini, Conti, Franchi, Mazzarella and others have either adopted some of the fundamental principles of Vico, or subjected his doctrine to critical examination. More recently P. Siciliani, in his *Sul Rinnovamento della Filosofia positiva in Italia*, 1871, having examined all the principal systems of philosophy, rejects them all, and contends that the reconciliation of modern positivism with ancient idealism can only be effected through the doctrines of Vico, from which he strives to develop not only a historical philosophy,

but a logical and metaphysical doctrine. Siciliani is also the author of *Dante, Galileo e Vico*, 1865. Other works of criticism on the philosophy of Vico are Colangelo's *Considerazioni sulla Scienza Nuova*, 1821; G. De Cesare's *Sommario delle dottrine del Vico*, 1826; S. Gallotti's *Principii di una Scienza Nuova di G. B. Vico*, 1826; P. Jola's *Studio sul Vico*, 1841; P. S. Mancini's *Intorno alla Filosofia del Diritto*, 1841; Della Valle's *Saggi sulla Scienza della Storia*, 1844; G. Rocco's *Elogio Storico di G. B. Vico*, 1844; D. D'Ondes Reggio's *Introduzione ai Principii delle Umane Società*, 1851; C. Marini's *G. B. Vico al cospetto del Secolo 19°*, 1852; C. Giani's *Dell' Unico Principio e dell' Unico Fine dell' Universo Diritto*, 1855; E. Fagnani's *Della necessità e dell' uso della Divinazione testificata dalla Scienza Nuova di Vico*, 1857; B. Fontana's *La Filosofia nella Storia*, 1868; J. Merletta's *G. B. Vico e la Sapienza antichissima degli Italiani*, 1869; G. De Luca's *Saggio ontologico sulle dottrine dell' Aquinate e del Vico*, 1870; C. Cantoni's *G. B. Vico*, 1867. In Germany the philosophy of Vico found interpreters in F. K. Savigny in his *Niebuhr*, 1842; E. Gans in his preface to *Hegel's Philosophy of History*; G. Jacoby in his *Cantoni über Vico*, 1869; F. A. Wolff in the *Museum der Alterthumswissenschaft*, 1807; G. Orelli in his *Vico and Niebuhr*, 1816; G. Weber, the translator of the *Scienza Nuova*, 1822; Göschel in the *Zerstreute Blätter*, 1837; Cauer in the *Germanic Museum*, 1857; and C. E. Müller, the translator of Vico's minor works, 1854. In France, M. Michelet has interpreted his doctrines in his *Principes de la Philosophie de l'Histoire*, 1827; Ballanche, in his *Prolégomènes à la Palingénésie Sociale*, and in his *Orphée*, 1830; V. Cousin, in his *Introduction à l'Histoire de la Philosophie*, 1831; Lerminier, in his *Introduction générale à l'Histoire du Droit*, 1829; Jouffroy, in his *Mélanges Philosophiques*, 1834; Bouchez, in his *Introduction à la Science de l'Histoire*, 1844; the anonymous author of *la Science Nouvelle par Vico*, 1844; Adam Franck, in the *Journal des Savants*, 1867; H. de Ferron, in his *Théorie du Progrès*, 1869; Vacherot, in his *Science et Conscience*, 1870; F. Laurent, in his *Etudes sur l'Histoire de l'Humanité*, vol. xviii., 1870; Barthlomèss, in the *Dictionnaire des Sciences Philosophiques*, vol. vi.; F. Boullier in his *Histoire de la Philosophie Cartésienne*, 1854; C. Renouvier, in his *Manuel de la Philosophie Moderne*, 1842; and A. Comte in his letter to John St. Mill. *Cf.* Littré, *A. Comte et la Philosophie Positive*, 1861. Among the English philosophers, John Stuart Mill has given attention to the historical principles of Vico in his *System of Logic*. *Cf.* Vico's "*New Science and Ancient Wisdom of Italians*," in *Foreign Review*, Lond., vol. v., p. 380; *Foreign Quarterly Review*, xxxiv., 289.

The philosophic revolution which began with Descartes in France, soon extended to Italy and manifested itself in the two forms of Psychologism (or Idealism), and Sensualism,—represented by Descartes and Malebranche on the one side, and by Locke and Condillac on the other.

Among the followers of the Psychologism of Descartes were Tommaso Cornelio (d. 1684), who in his *Progymnasmata Physica*, 1633, tried to blend the doctrines of Telesio with the method of the French philosopher; Michelangelo Fardella (b. 1650), the friend of Arnauld and Malebranche, and the author of *Universæ Philosophiæ Systema*, 1691; Paolo Doria, who in his *Difesa della Metafisica*, 1732, opposed the doctrines of Locke; Constantino Grimaldi, who in his *Discussioni Istoriche, Teologiche e Filosofiche*, 1725, vindicated the Cartesian philosophy against the attacks of the Aristotelians of his age; and Fortunato da Brescia, the author of *Philosophia Mentis methodice tractata*, 1749. Among the opponents of Aristotle may also be mentioned S. Basso, *Philosophiæ*

Naturalis adversus Aristotelem, libri 12, 1621. The following writers belong to the school of Descartes through their affinities with Malebranche: Cardinal Gerdil (1718-1802), who held to the vision of ideas in the divine mind, and opposed the Sensualism of Locke, the Ontologism of Wolff, and the Pantheism of Spinoza. Among his numerous works the following relate to philosophical subjects: *L'immatérialité de l'âme démontré contre Locke; Défense du sentiment du P. Malebranche—sur la nature et l'origine des idées contre l'examen de Mr. Locke; Anti-Emile, or, Réflexions sur la théorie et la pratique de l'éducation contre les principes de Rousseau; Traité des combats singuliers; Discours philosophiques sur l'homme; Dimostrazione matematica contro l'eternità della materia; Dell' infinito Assoluto considerato nella grandezza; Esame e confutazione dei principii della Filosofia Wolfiana; Introduzione allo Studio della Religione:* Tommaso Rossi, contemporary of Vico, and author of *La Mente Sovrana;* Vincenzo Micoli, who in the beginning of the eighteenth century strove to reconcile Christian idealism with the Eleatic doctrines, and whose system may be found in V. Di Gioanni's work: *Micoli, ovvero dell' Ente Uno e Reale*, 1864; V. Palmieri, who defended Christianity against the materialistic doctrines of Frerèt and other French writers; Carli, who in his *Elementi di Morale*, 1741, attempted a philosophical confutation of Rousseau on the inequality of men; T. V. Falletti, who, in his work on Condillac, established the principle of knowledge on the idea of being as evolved from the *Ego;* Draghetti, who founded his Psychology on moral instinct and reason; G. Torelli, in his treatise *De Nihilo*, 1758; V. Chiavacci in his *Saggio sulla grandezza di Dio;* C. Degli Orazi in his *Metodo universale di filosofare*, 1788; E. Pini (1750-1815), author of the *Protologia*, a Latin work, in which he established all principles of knowledge and morality on the unity of the Divine Nature; P. Giovenale, who in his *Solis intelligentiæ, cui non succedit nox, lumen indeficiens ac inextinguibile illuminans omnem hominem*, 1746, sought in divine illumination the source of all science; Tellino, who in his *Theses Philosophicæ de Infinito*, 1660, ascended to the idea of the Infinite as the principle of all knowledge; a principle which was also regarded as transcendental by Pasqualigo in *Disputationes Metaphysicæ*, 1616, by M. Terralavoro in *Metaphysica*, 1672, and by R. G. Boschovich in *Sulla Legge di Continuità*, 1750.

While the preceding writers were characterized by a Platonic tendency, the following professed themselves disciples of Aristotle: J. Liceto, in his *De Ortu Animæ Humanæ*, 1592; *De Intellectu Agente*, 1627. *De Lucernis antiquorum reconditis; De Annulis antiquis; Apologia pro Aristotele Atheismi accusato; De Pietate Aristotelis;* G. Polizzo, in his *Philosophicæ Disputationes*, 1673; A. Andrioli, in his *Philosophia Experimentalis*, 1703; F. Langhi, in his *Novissima Philosophia*, 1679; G. Morandi, in his *Cursus Philosophici*, 1667; A. Masò, in his *Theatrum Philosophicum*, 1653; S. Serbelloni, in his *Philosophia*, 1657; S. Spinola, in his *Novissima Philosophia*, 1673; G. Ambrosini, in his *Methodus inventiva*, 1625; G. B. De Benedetti, in his *Philosophia Peripatetica*, 1688; A. Rocco, in his *Esercitazioni filosofiche*, 1633. As Empiricists more independent of scholastic influence may be mentioned G. A. Borelli, the eminent scientist, in his great work, *De Motu Animalium*, 1630, in which animal mechanics were established on scientific principles; L. Magalotti, in his *Lettere famigliari* against Atheism, 1637; G. Grandi, author of a Logic in which he opposed Scholasticism, 1695, and of *Diaeresi*, in which he refuted the doctrines of P. Ceva, as expressed in his *Philosophia Novo-Antiqua*, 1726, a work written in Latin verses, intended as a confutation of Gassendi, Descartes, and Copernicus; M. A. Severino, who in his *Pansofia*, 1650, strove to investigate nature through the study of ancient monuments. G. G. Magneno preceded Gassendi in the restoration of the atomistic philosophy in his *Democritus reviviscens*, and in *De Restauratione Philosophiæ*

Dem. Epicureæ, 1648; G. M. Ciassi anticipated Leibnitz in the doctrine of Monades, in his *Intorno alle Forze Vive*, 1678, and F. Algarotti called the attention of his contemporaries to the works of Newton in his *Newtonianismo*, 1733. The philosophy of Wolff found an exponent in the author of *Institutiones Philosophiæ Wolfianæ*, 1754, and the doctrine of Leibnitz was interpreted in the works of B. Trevisani and T. Cattaneo. Meanwhile the questions as to the soul of animals, and the union of the soul with the body, were treated by G. Cadonici in *Dissertazione epistolare*, 1768; P. Fassoni, in *Libro sull' anima delle bestie;* L. Barbini, *Nuovo Sistema intorno all' anima dei bruti*, 1750; J. H. Sbaragli, *Entelechia, seu anima sensitiva brutorum demonstrata contra Cartesium*, 1716; P. D. Pino, *Trattato sopra l'essenza dell' anima delle bestie*, 1766; C. Vitale, *L'unione dell' anima col corpo*, 1775; P. Papi, *Sull' anima delle bestie*, 1706; G. P. Monti, *Anima brutorum*, 1742; B. Corte, *Sul tempo in cui si infonde l'anima nel feto*, 1702.

With the beginning of the eighteenth century, Empiricism was greatly extended. At first it remained independent, but it soon fell under the influence of the doctrines of Locke and Condillac.

Among the early Empiricists of that age may be mentioned De Martini, *Logica seu Ars cogitandi*, 1728; A. Fuginelli, *Principia Metaphysicæ geometrica methodo pertractata*, 1755; A. Visconti, *Theses ex Universa Philosophia*, 1741; A. Sanctis, *Delle passioni e vizi dell' intelletto;* C. Fromond, *Nova Introductio ad Philosophiam*, 1718; N. Spedalieri, *Dei Diritti dell' Uomo*, 1791; F. M. Zanotti, philosophical works, 1763; F. Longano, *Dell' Uomo naturale*, 1764; G. Boccalossi, *Sulla Riflessione*, 1788; I. M. Amati, *Ethica ex tempore concinnata*, 1721; P. Verri, philosophical works, 1788; C. Baldinotti, *Tentaminum Metaphysicorum, Libri* 3, and *De Recta Humanæ Mentis Institutione*, 1787; G. Tettoni, *Principii del Diritto naturale*, 1771; G. Capocasale, *Cursus Philosophicus*, 1792; I. Bianchi, *Meditazioni;* L. A. Muratori, the author of the Annals of Italy, and of *Delle Forze dell' Intendimento*, 1745, *Della Forza della Fantasia*, and *La Filosofia Morale*, 1735; G. V. Gravina, the author of *De Origine Juris Romani*, 1700, and *La Ragione poetica*, 1704. The influence of the Sensualistic School of France was chiefly introduced into Italy through the translation of Locke's "*Essay on the Understanding*" by Francesco Soave, a member of the Order of the Somaschi, and the author of *Instituzioni di Logica, Metafisica e Morale*, 1810, and of many other philosophical works, all moulded on the philosophy of Locke. His *Instituzioni* have long been the text-book of philosophical instruction in the Colleges of Northern Italy. The translations of the writings of Bonnet, D'Alembert, Rousseau, Helvetius, Holbach, De Tracy, and, above all, the philosophical works of Condillac gave a powerful impulse to the doctrine, and the philosophy of the senses became predominant in the universities and colleges of the Peninsula. The personal influence of Condillac, who resided for ten years at the Court of Parma as tutor to a Bourbon prince, greatly contributed to this result. The philosophical text-books written in Latin by P. Mako and S. Storcheneau, both German writers, also greatly added to the propagation of Sensualism in the Italian Schools. Among the representatives of this philosophy may be mentioned, besides Soave already named, G. C. Bini, *Lettere Teologiche e Metafisiche*, 1746; Pavesi, *Elementa Logices, Metaphysices, et Phil. Moralis*, 1793; F. Barkovich, *Saggio sulle passioni;* C. Rezzonico, *Sulla Filosofia del Secolo 18°*, 1778; M. De Tomaso, *Instituzioni di Metafisica*, 1804; I. Valdastri, *Lezioni di analisi delle Idee*, 1807; T. V. Lomonaco, *Analisi della sensibilità*, 1809; P. Schedoni, *Delle morali influenze*, 1810; Cestari, *Tentativo secondo della rigenerazione delle Scienze*, 1804; I. Abbà, *Elementa Logices et Metaphysices*, 1829, *Delle Cognizioni*

umane, 1832, and *Lettere a Filomato sulle credenze primitive*, 1835; and Pasio, *Elementa Philosophiæ Moralis*. On the same basis Cicognara sought to establish Æsthetics, in his *Del Bello*, 1815; M. Cesarotti, Philology, in his *Sulla Filosofia delle Scienze*, 1806; P. Costa, Rhetoric, in his *Del modo di comporre le idee*, and P. Borrelli, under the name of Lallebasque, Psychology, in his *Principii della Genealogia del Pensiero*, 1817.

To counteract these materialistic tendencies, some writers endeavored to construct a philosophy on the basis of Revelation, while others sought refuge in a kind of Eclecticism.

Among the first may be mentioned Premoli, *De existentia Dei*, 1754; G. B. Riccioli, *De distinctione entium in Deo et in creaturis*, 1769; F. M. Sicco, *Logicæ et Metaph. Institutiones*, 1741; P. A. Semery, *Triennium Philosophicum*, 1708; G. A. Ferrari, *Philosophia Peripatetica adversus veteres et recensiores præsertim Philosophos*, 1748; and G. Leti, *Nihil sub Sole Novum*, and *De unico rerum naturalium formali principio, seu de Spiritu Materiali*, 1718. Among the second class were Ceva, already mentioned; Maria C. Agnesi, *Propositiones Philosophicæ*, 1738; E. Corsini, *Institutiones Philosophicæ ac Matematicæ*, 1731; G. Gorini, *Antropologia*, 1758; Luini, *Meditazione Filosofica*, 1778; C. I. Ansaldi, *Riflessioni sulla Filosofia Morale*, 1738, *De traditione principiorum legis naturalis*, 1742, and *Vindiciæ Maupertuisianæ*, 1754; G. B. Scarella, *Elementa Logicæ, Ontologiæ, Psycologiæ et Teologiæ naturalis*, 1762; and above all, Antonio Genovesi (1712–1769) in his *Elementa Metaphysices*, 1763; *Elementorum Artis Logico-Criticæ*, 1759; *Instituzioni delle Scienze Metafisiche; Logica pei Giovanetti; Diceosina* or moral science; *Meditazioni Filosofiche; Elementi di Fisica sperimentale;* and in his *Lezioni di Commercio e di Economia Civile*, which work contains his lectures on political economy, delivered from the chair established in the University of Naples, in 1754, by his friend Interi, a wealthy Florentine who resided in that city. To this same School may be referred J. Galiani, the author of *Trattato della moneta*, 1750, and the *Dialogues sur le Commerce de blé*, 1770; F. Bianchini, who, in his *Storia Universale*, 1697, strove to separate history from its legendary elements by a philosophic interpretation of ancient monuments; P. Giannone, who, in his *Storia civile del Regno di Napoli*, 1724, put in evidence the usurpations of the Church over the State, and boldly asserted the independence of the latter; and Cesare Beccaria, the author of *Dei Delitti e delle Pene*, 1764—a work which, more than any other, has contributed to a radical reform of penal law in Europe. Cf. *Storia della Letteratura Italiana* di G. Tiraboschi, 1826–36; *Della Storia e dell' Indole d'ogni Filosofia di A. Cromaziano* (Appiano Buonafede), 1782–84; *Della Ristaurazione d'ogni Filosofia nei Secoli* 15°, 16°, 17°, by the same writer, 1785–89; *Dell' Origine e Progresso d'ogni Letteratura*, by G. Andrès; *I Secoli della Letteratura Italiana*, di G. B. Corniani *continuata da* S. Ticozzi e C. Ugoni, 1856; *Storia della Letteratura Italiana nel Secolo* 18°, di A. Lombardi, 1827; *Histoire littéraire d'Italie*, par P. L. Ginguène—*continuée par* F. Salfi, 1834; *Storia della Letteratura Italiana*, di G. Maffei, 1853; *Storia della Letteratura Italiana*, di P. Emiliani Giudici, 1855. Cf. also *Supplementi alla Storia della Filosofia di Tennemann*, by Romagnosi and Poli, 1834. On Genovesi cf. *Genovesi* by S. Racciopi, 1871, and on Beccaria *Beccaria e il Diritto Penale* by C. Cantù, 1863.

Contemporary Philosophy.

The predominance of French philosophy, in the eighteenth and in the early part of the nineteenth century, made the ideas of the French encyclopædists and sensualists popular among the more advanced thinkers of Italy. The progress of natural science, of jurisprudence and political economy contributed to foster the habit of mental independence, while the national spirit which had penetrated Italian literature from the age of Dante, became more powerful than ever, especially through the writings of Vittorio Alfieri, who, in his *Misogallo*, earnestly opposed the prevailing influence of French thought, and in his tragedies strove to excite his countrymen to noble and independent deeds by the dramatic representation of ancient patriotism. This spirit was afterwards kept alive by the poetry of Ugo Foscolo and Giacomo Leopardi, the satires of Parini and Giusti, the political writings of Mazzini, the historical novels of Guerrazzi and Azeglio, the tragedies of Manzoni and Niccolini, and the historical works of Carlo Troya, Colletta, Carlo Botta, and Cesare Balbo. But no department of mental activity contributed so powerfully to the advance of the national sentiment as philosophy, which, embodying the aspirations of the people, aimed to give them a scientific basis and a rational direction. In its development it passed through the same phases as in France, England, and Germany, adjusting itself to the wants of the country, yet keeping on the whole an independent character. The Italian contemporary philosophy may be divided as follows: 1. Empiricism. 2. Criticism. 3. Idealism. 4. Ontologism. 5. Absolute Idealism or Hegelianism. 6. Scholasticism. 7. Positivism.

I. Empiricism. Of this School Melchiorre Gioja (1767–1829) is the first representative. He was born in Piacenza, and early devoted himself to the cause of liberty and national independence. With the advent of Napoleon in Italy he entered public life, and advocated a Republican government. Under the Cisalpine Republic he was appointed historiographer and director of national statistics. With the fall of Napoleon he retired from office; and twice suffered imprisonment for his liberal views. Accepting the doctrines of Locke and Condillac, Gioja strove to apply them to the social and economic sciences in the defence of human rights, and the promotion of wealth, and happiness among the people. In his *Elementi di Filosofia*, 1818, he defines the nature of external observation, and describes its methods its instruments, its rules, and the other means through which its sphere may be extended. The foundation of all science, according to him, lies in the science of Statistics, which supplies the phenomena of scien-

tific investigation, classifies them, and brings them under general laws. Thus Statistic embraces nature and mind, man and society; it originates in philosophy and ends in politics, to which it reveals the economic resources of nations, wealth, poverty, education, ignorance, virtue, and vice. This process he follows in his *Filosofia della Statistica*, 1826, in which he reduces all economic and political phenomena to certain fundamental categories, the bases of social science, and the criteria of productive forces in society. He follows the same method in defining the nature of social merit in his *Del Merito e delle Ricompense*, 1818; fixing its constituent elements, he verifies them in the history of nations, and by their presence or absence traces the different degrees of their civilization. A follower of Condillac in psychology, Gioja is the disciple of Bacon in his method, and of Bentham in his morals. The general good constitutes the source of duty, right, and virtue; even self-sacrifice springs from utility. Imagination and illusion play a great part in human life, indeed it is only through these faculties that man excels other animals. Through them he loves fame, wealth, and power, his greatest motives to action. Virtue itself finds its best compensation in illusion, and religion has in the eyes of a true statesman no other value than the influence it exerts on the people. Gioja wrote also *Teoria Civile e Penale del Divorzio; Indole, Estensione e Vantaggi della Statistica; Nuovo Prospetto delle Scienze Economiche; Ideologia*, 1822; and *Il Nuovo Galateo*. Cf. *Elogio Storico di M. Gioja*, by Romagnosi, 1829, *Discorso su Gioja*, by Falco, 1866, and *Essai sur l'Histoire de la Philosophie en Italie au Dix-Neuvième Siècle*, by Louis Ferri, 1869.

Gian Domenico Romagnosi (1761–1835), the eminent jurist, marks a step in advance in the empiric philosophy. He was born in Piacenza, supported the government of Napoleon in Lombardy, and held a professorship of jurisprudence in Parma, Pisa, and Milan. In 1818 he was tried for treason against Austria, and acquitted. His psychologic doctrines are contained in his *Che Cosa è la Mente Sana*, 1827; *La Suprema Economia dell' Umano Sapere*, 1828; *Vedute fondamentali sull' Arte logica*, 1832; *Dottrine della Ragione*. While he admits the general tenets of Condillac, he rejects the notion that our ideas are but transformed sensations. He recognizes in the mind a specific sense, the logical, to which he attributes the formation of universal ideas and ideal syntheses. It is this faculty which perceives differences and totalities, as well as all relations which form the chain of

creation. The harmony between the faculties of the mind and the forces of nature is the foundation of all philosophy. It is through the logical sense that that harmony is reached, and the connection and co-ordination of mind and nature are effected. Its sphere, however, is limited to experience, and is therefore essentially phenomenal. The reality of nature, cause, substance and force escapes our mind. Moral obligation arises from the necessary conjunction of our actions with the laws of nature, in reference to our own perfection. The ideal of this perfection, formed from experience and reason, constitutes the rational necessity of moral order. Right is the power of doing whatever is in accordance with that order; hence right is subordinate to duty. Hence, too, human rights are inalienable and immutable; they are not created by law, but originate in nature, and culminate in reason. Civil society is the child of nature and reason, and not the offspring of an arbitrary contract, as Rousseau believed. Civilization is the creation of the collective intelligence, in the pursuit of the ends established by nature. It is both internal and external; the first is the result of the circumstances amidst which a nation may find itself, in relation to its own perfection; the second is transmitted from one people to another, and modified by local causes. As a general rule, civilization is always exteriorly transmitted through colonies or conquest, or communicated by Thesmothetes (law-givers), foreign or native. Romagnosi develops these ideas in his *Introduzione allo Studio del Diritto Publico Universale*, 1805; *Principii della Scienza del Diritto*, 1820; *Della Natura e de' Fattori dell' Incivilimento*, 1832. His *Della Genesi del Diritto Penale*, 1791, in which he limits the right of punishment to the necessity of social defence, has contributed, not less than the work of Beccaria on crimes and punishments, to the reform of penal law in Europe since the beginning of the present century. A complete edition of Romagnosi's works was published in Milan, 1840, under the editorship of A. De Giorgi. Cf. *La Mente di G. D. Romagnosi* by G. Ferrari, 1835, his *Biografia* by C. Cantù, 1861, and Ferri, *op. cit.*

2. Criticism. This philosophic scheme proposes to establish the validity of knowledge by the analysis of thought. Its chief Italian representative is Pasquale Galuppi (1770–1846). He was born in Calabria, and held a professorship of philosophy in the University of Naples. A student of Descartes, Locke, Condillac, and Kant, he directed his attention chiefly to psychology, which in connection with ideology constitutes, according to him, all metaphysical science. Phi-

losophy is the science of thought in its relation to knowledge and to action; hence it is theoretical or practical. The former embraces, 1. Pure Logic, which occupies itself with thought, that is, with the *form* of knowledge which is independent of experience. 2. Ideology and Psychology, the science of thought and of its causes, and, 3. Mixed Logic, which considers empiric thoughts, the matter of knowledge, and unites the principles of pure reason with the data given by sensations. Practical philosophy, or Ethics, considers thought in relation to the will, the motives and rules of its actions. To this Natural Theology is added, which from the conditional evolves the unconditional and from the relative the absolute. Philosophy from another point of view may also be divided into subjective and objective, as its object is the mind itself, or the relations which unite it to the external world. The fundamental problem of philosophy is found in the question of the reality of knowledge. Rejecting the solution of it given by Locke and Condillac, he accepts the distinction of Kant between the form and the matter, the pure and the empiric elements in human thought; but he insists that by making the former the product of the mind, the philosopher of Königsberg rendered it a merely subjective function, made knowledge entirely subjective, and paved the way for the Scepticism of Hume. Realism in knowledge can only be obtained from the assumption of two principles: 1st, the immediate consciousness of the *Ego;* 2d, the objectivity of sensation. The consciousness of the substantiality of the *Ego* is inseparable from the modifications of our sensibility; at the same time sensation, either internal or external, is not merely a modification of our existence, but is essentially objective; it affects the subject and contains the object. Our mind is thus in direct communication with itself and the external world through a relation which is not arbitrary, as Reid supposed, but essential, necessary, and direct. This relation is expressed in the immediate sentiment of the metaphysical unity of the *Ego*, which thus becomes the foundation of knowledge. From the primitive consciousness of the *Ego*, and of the *non-Ego*, the mind rises to distinct ideas through reflection, aided by analysis and synthesis—the analysis preceding the synthesis—by distinguishing the sensation both from the *Ego*, and the object which produced it. Thus an idea is essentially an analytic product, although it may be considered as synthetic, in relation to the substantial unity of the *Ego* in which it is formed.

Although all knowledge of reality is developed from the consciousness of experience, there is a previous element in the mind which renders that development possible. This element is subjective, that is, it is given by the mind itself in its own activity, and consists in the immediate perception of the identity of our ideas, from which arises metaphysical evidence or logical necessity, which forms the basis of all philosophical reasoning and scientific certainty. Thus every judgment based on logical necessity proceeds from the principle of identity, which in its negative form becomes the principle of contradiction. It is therefore analytical; indeed no synthetic judgment *à priori* is admissible, and those which were held as such by Kant may all be reduced to analytical ones, in which the attribute is contained in the subject, and which therefore are based on identity. General ideas are all the product of comparison and abstraction; none of them are innate, although they are all natural, that is to say, the product of mental activity. Thus from the perception of bodies the mind evolves the ideas of plurality, extension, and solidity; from these the idea of matter; and through further analysis, those of substance, causality, time and space. They are all analytical, subjective and objective; analytic because derived through analysis from identity, subjective because elaborated by the activity of the mind out of its own consciousness, and objective because contained in the objective perceptions of sensibility.

A spiritualist in psychology, Galuppi maintains the unity, the simplicity, the indivisibility and the immortality of the human soul, which he considers as a substantial force, developing into various faculties as it becomes modified by diverse surrounding circumstances, from the consciousness of the *Ego* and of the *non-Ego* rising to abstract and universal principles. Remaining, however, within the bonds of empiricism, though he places the human mind above nature, yet he also holds that it cannot attain to the knowledge of its own essence, or of the essence of matter, nor understand the origin of the universe, and the processes of its development. In Ethics he rejects both the doctrine of Helvetius, which founds morality on the instinct of pleasure, and that of Wolff and Romagnosi, who derive its essence from our natural longing for perfection. First among modern philosophers of Italy, he established with Kant the absolute obligation of moral law, and its pre-eminence above self-interest and self-perfection. Happiness is a motive to our actions; it is not the essence of moral obligation, nor the source of virtue. Absolute imperatives, or practical

judgments *à priori*, such as "Do your duty," are at the foundation of moral law; they originate from the very nature of practical reason, which contains also the principle of the final harmony between virtue and happiness—expressed in the moral axiom "Virtue merits reward, and vice punishment." From this principle as well as from our own consciousness he demonstrates the freedom of the will, both as a psychological and moral fact. Natural religion has for its object the existence of God, of whom we may obtain the idea by rising from the conditional to the unconditional, from the finite to the infinite, and from the relative to the absolute. This idea is subjective: it is developed from that of identity, that is, the one is included in the other. But we reach also the existence of infinite reality through the principle of causality, and in this sense the idea of God is objective. Theism alone can reconcile the infinite goodness of God with the existence of evil; a reconciliation, however, which is imperfect, from the very fact that human reason cannot understand all the relations which exist between all beings. God is incomprehensible, creation is a mystery, miracles are a possibility, and revealed religion is an important aid to our education. Cf. L. Ferri, *op. cit.*, and R. Mariano, *La Philosophie Contemporaine en Italie*, 1868. The following are the works of Galuppi: *Saggio Filosofico sulla Critica della Conoscenza*, 1819–32; *Lettere Filosofiche sulle Vicende della Filosofia intorno ai Principii della Conoscenza Umana da Cartesio fino a Kant*, 1827; *Elementi di Filosofia*, 1820–27; *Lezioni di Logica e di Metafisica*, 1832–36; *Filosofia della Volontà*, 1832-40; *Considerazioni sull' Idealismo trascendentale e sul Razionalismo assoluto*, 1841.

The following writers may be referred partly to Empiricism, and partly to Criticism: —P. Tamburini, *Introduzione allo Studio della Filosofia Morale*, 1821; *Elementa Juris Naturæ*, 1815; *Cenni sulla Perfettibilità dell' Umana Famiglia*, 1825; A. Ceresa, *Principii e Leggi generali di Filosofia e Medicina*, 1817; F. Zantedeschi, *Elementi di Psicologia Empirica* 1832; B. Poli, *Saggio Filosofico sopra la Scuola dei moderni filosofi naturalisti*, 1827; *Saggio d'un Corso di Filosofia*; and *Primi Elementi di Filosofia*, 1833; G. Ricci, in his *Cousinismo* (Antologia di Firenze, 1826), Rivato, Ricobelli, and Devincenzi, who wrote on the French Eclecticism in the *Commentari dell' Ateneo di Brescia*, 1828–31; G. Lusverti, *Instituzioni Logico-Metafisiche*, 1828; M. Gigli, *Analisi delle Idee*, 1814; D. Bini, *Lezioni Logico-Metafisico Morali*, 1818; C. A. Pezzi, *Lezioni di Filosofia della mente e del cuore*; Accordino, *Elementi di Filosofia*, 1830. Zelli, *Elementi di Metafisica*, 1830; G. Alberi, *Del Nescibile*, 1824; A. Gatti, *Principii di Ideologia*, 1827. G. Passeri, *Della natura umana socievole*, 1815; *Dell' umana perfezione*, 1822; G. Scaramuzza, *Esame analitico della facoltà di sentire*, 1823; Bonfadini, *Sulle Categorie di Kant*, 1831; Bruschelli, *Prælectiones Logico-Metaphisicæ*, 1831. Bellura, *La Coscienza*, 1829; E. Fagnani, *Storia naturale della potenza umana*, 1833. *Delle intime relazioni in cui progrediscono la Filosofia, la Religione e la Libertà*, 1863; De Ocheda, *Della Filosofia degli Antichi*, 1831; Pizzolato, *Introduzione allo Studio della Filosofia*, 1832; G. L. Domowski, a Jesuit, *Institutiones Philosophicæ*, 1841; A. Testa, *La Filosofia del Sentimento*, 1830; *La Filosofia dell' Intelligenza*, 1836; *Esame e discussione della Critica della Ragione Pura di Kant*, 1843–49; *Critica del Nuovo Saggio sull' Origine delle Idee di A. Rosmini*, 1842; V. De Grazia, *Saggio sulla realtà della conoscenza umana*, 1847; A. Cattara-Lettieri, *Dialoghi filosofici sull' intuizione*, 1860; *Introduzione alla Filosofia morale e al Diritto razionale*, 1862; A. Longo, *Pensieri filosofici*, 1846; *Teoria della conoscenza*, 1851; *Dimostrazione analitica delle facoltà dell' anima*, 1852; V. Tedeschi, *Elementi di Filosofia*, 1832; P. S. Mancini, *Elementi di Filosofia*, 1836; Mantovani, *Traduzione della Critica della Ragione Pura di Kant*, 1822; B. Mazzarella, *Critica della Scienza*, 1860; *Della Critica*, 1867. Empiricism was applied to Æsthetics by M. Delfico in his *Nuove Ricerche sul Bello*, 1818; Talia, *Principii di Estetica*, 1827; Ermes Visconti, *Saggi sul Bello*, 1835, and *Riflessioni ideologiche intorno al linguaggio grammaticale dei popoli colti*; G. Venanzio, *Callofilia*, 1830; G. Zuccala, *Principii estetici*, 1835; P. Lichtenthal, *Estetica*; G. Longhi, *Callografia*, 1830; and L. Pasquali, *Instituzioni di Estetica*, 1827. Zuccala and Lichtenthal, however, separate themselves from the empirical School, and strive to find the essence of beauty in the idea. The same principles of Empiricism were followed by writers who undertook to construct a genealogy of sciences, such as L. Ferrarese in his *Saggio di una nuova classificazione delle Scienze*, 1828. He is also the author of *Delle diverse specie di follia*, 1830; *Ricerche intorno all' origine dell' istinto*, 1834, *Trattato della monomania suicida*, 1835. G. De Pamphilis in his *Geografia dello Scibile considerato nella sua unità di utile e di fine*, 1830; and D. Rossetti in his *Dello Scibile e del suo insegnamento*, 1832. Among the writers on Pedagogy who followed empirical doctrines may be mentioned Pasetti in his *Saggio sull' Educazione fisico-morale*, 1814. S. Raffaele, *Opere Pedagogiche*, 1826; L. Boneschi, *Precetti di Educazione*; A. Fontana, *Manuale per l'Educazione umana*, 1834; Parravicini in his various educational works; F. Aporti, *Manuale di Educazione e di Ammaestramento per le Scuole infantili*, 1833; P. Assarotti, *Istruzione dei Sordi-Muti*; Bazutti, *Sullo stato fisico intellettuale e morale dei Sordi-Muti*, 1828; S. De Renzi, *Sull' indole dei Ciechi*, 1829; and G. B. Fantonetti, *Della Pazzia*, 1830. Among the historians who followed the doctrines of historical criticism may be named F. Rossi in his *Studi Storici*, 1835; Carlo Denina in his *Rivoluzioni d'Italia*, 1808; Pietro Verri in his *Storia di Milano*, 1798; K. di Gregorio in his *Considerazioni sulla Storia di Sicilia*; P. Colletta in his *Storia del Regno di Napoli*, 1820; C. Botta in his *Storia della Guerra dell' Indipendenza Americana*, 1809; and *Storia d'Italia*, continued from that of Guicciardini, 1824; N. Palmieri in his *Saggio Storico e Politico sulla Costituzione del Regno di Sicilia*, 1847; C. Cantù in his *Storia Universale*, 1847; and *Storia degli Italiani*, 1856. Also by Micali in his *L'Italia avanti il Dominio de' Romani*, 1810; A. Mazzoldi in his *Delle Origini Italiche*, 1840; Lamperdi in his *Filosofia degli Etruschi*, 1872; Berchetti in his *Filosofia degli antichi popoli*, 1812; D. Sacchi in his *Storia della Filosofia Greca*, 1820; G. R. Roggero in his *Storia della Filosofia da Cartesio a Kant*, 1868; Ragnisco, *Storia delle Categorie da Talete ad Hegel*, 1871; F. Sclopis, *Storia della Legislazione Italiana*; C. Farini, *Stati Romani*, 1850; and G. La Farina, *Storia d'Italia dal 1815 al 1848*.

3. IDEALISM.—Whatever may be the value of the psychological investigations of Galuppi, and the seeming "realism" by which his

theory is characterized, his doctrine, founded as it was on the subjective activity of the mind in connection with experience, could not supply an objective foundation for science; it therefore left the problem of knowledge unsolved. To establish the objectivity of human thought on an independent and absolute principle was the task which Antonio Rosmini (1797–1855), the founder of modern Idealism in Italy, proposed to himself. He was born in Rovereto in the Italian Tyrol, and received his education at the University of Padua. In 1821 he entered the priesthood, and at a later period founded a religious institute of charity, whose members devote themselves to the education of youth and the ecclesiastical ministry. In 1848 he was charged by King Charles Albert with a mission to Rome, the object of which was to induce Pius IX. to join the Italian Confederation, and to allow the citizens of the Roman States to participate in the War of National Independence. His efforts at first promised success; he was made a member of the Papal Cabinet and was even invited to the honors of the Cardinalate. But the influence of the reactionary party in the Church having become predominant, the Pope withdrew from the liberal path on which he had entered, Rosmini's proposal was rejected, and the ambassador himself dismissed in disgrace. He returned to his retreat at Stresa on the Lago Maggiore, where he again devoted himself to the work of the restoration of philosophy, for which he had so long labored.

Philosophy, according to Rosmini, is the science of the ultimate reasons; the product of highest reflection, it is the basis of all sciences in the universal sphere of the knowable, embracing ideality, reality and morality, the three forms under which Being manifests itself. Hence there are three classes of philosophical sciences: 1st, the Sciences of intuition, of which ideality is the object, such as Ideology and Logic; 2d, the Sciences of perception, the object of which is reality, as given in the sensibility, such as Psychology and Cosmology; 3d, the Sciences of reason, whose object is not immediately perceived, but is found through the inferences of reason, such as Ontology and Deontology; the former considering Being in itself and in its three intrinsic relations; the latter, Being in its ideal perfection, of which morality is the highest complement. Ideology is the first science; it investigates the origin, the nature, and the validity of ideas, and with Logic establishes the principle, the method, and the object of philosophic investigation. His Ideologic and Logical works, containing the fundamental principle of his system, and the germ of all his doctrines, are as follows: *Nuovo Saggio sull' Origine delle Idee*, 1830; *Il Rinnovamento della Filosofia in Italia*, 1836, a polemical work directed against Mamiani; *Introduzione alla Filosofia*, 1850, and *La Logica*, 1853.

Having reduced the problem of knowledge to the intellectual perception of reality, Rosmini examines and rejects the solutions given by the principal philosophers of ancient and modern times. He however accepts the views of Kant on the essence of that perception, and places it in a synthetic judgment *à priori*, the subject of which is given by our sensibility, and the attribute by our mind; the one being furnished by experience, the other having a transcendental origin. But against Kant he contends, that this transcendental element is one and objective, not plural and subjective; it is not evolved by the activity of the mind, but although essentially united to it, it has an absolute, objective and independent existence. This element, the objective form of the mind, to which all Kantian forms may be reduced, is Being in its ideality (*l' Essere ideale*), which contains no real or ideal determinations, but is ideal activity itself, deprived of all modes and outlines, the potential intelligibility of all things, native to the mind, the light of reason, the source of all intelligence, the principle of all objectivity, and the foundation of all knowledge. Essentially simple, one and identical for all minds, universal, necessary, immutable and eternal, the idea of being is the condition of all mental acts; it cannot originate from reflection, abstraction, or consciousness; it has a divine origin; indeed it is the very intelligence of God, permanently communicated to the human mind under the form of pure ideality. All transcendental ideas, logical principles, identity, contradiction, substance, causality, the very idea of the Absolute, are potentially contained within it, and become distinct through the process of reflection.

It is only through the synthesis of sensibility and ideality, that man intellectually perceives the existence of realities. To think is to judge, says Rosmini, and to think of reality is to judge that it is actually existent. To this judgment sensibility gives the matter or the subject, mind the form or the attribute, by applying to the former the attribute of existence; while the substantial unity of our nature, at once sentient and intelligent, affords the basis on which that synthesis is accomplished. Thus reality, which is subjective, that is to say, is essentially connected with sensibility, becomes objectively known through the affirmation of its existence. Thus ideality alone is knowable *per se*; while reality acting on our sensibility is perceived only through ideality. Through the faculty of universalizing, se-

parating the possibility, or the intelligibility, or the essence (these terms have the same meaning) of the objects so perceived, the mind forms universal ideas, which are thus but specific determinations of the infinite ideality.

Logic establishes the truth of knowledge and the foundation of its certainty. Now truth is a quality of knowledge; that is to say, our knowledge is true, when that which we know exists. Truth is, accordingly, the same as existence, and as existence is the form of our intelligence, so our mind, in its very structure, is in the possession of truth. No error is possible on this subject; for the idea of existence is affirmed in the very act of denying it. No delusion is possible as to its modes; for that idea has no mode, or determination. So all specific ideas and logical principles are free from error; for they represent mere possibilities, considered in themselves and without relation to other things. The same may be said of the primitive judgment, in which the existence of reality is affirmed. Confining ourselves to the simple affirmation of the actual existence of the object as it is given in sensibility, we cannot err; error begins when we undertake to affirm more than we perceive, or when we assert relations between ideas which do not exist. Error, therefore, is always voluntary, although not always a free act; it may occur in the reflex, but never in the direct or primitive knowledge. On these principles, Rosmini rejects the doctrine of Hume and Berkeley as to the validity of our knowledge.

Rosmini's psychological, cosmological, and ontological ideas are contained in his *Psicologia*, 1846–50, *Antropologia*, 1838, *Teodicea*, 1828, and *Teosofia*, 1859. Psychology considers the human soul in its essence, development, and destiny. A fundamental sensibility (*Sentimento fondamentale*), substantial and primitive, at once corporeal and spiritual, having two terms, one of which is a force acting in space, the other ideality itself, constitutes the essence of the soul. It is active and passive; it is united with internal and external extension, and its body has double relation to it, of subjectivity and of extra-subjectivity. It is one, simple and spiritual, and by this quality it is essentially distinguished from the souls of mere animals. Having for its aim and end the potential ideality of all things, it will last as long as this intuition; it is therefore immortal, although its term of *extension* will perish with the disorganization of the body. Life consists in fundamental sensibility, the result of that double hypostatic relation, in which the

body partakes of the subjective life of the soul, and the soul of the immortality of the infinite ideal. Cosmology considers the totality and the order of the universe, its parts and their relations to the whole. As reality is essentially connected with sensibility, so that the idea of the one involves the idea of the other, Rosmini admits a primitive sensibility in matter, and holds, with Campanella, that chemical atoms are endowed with a principle of life. Hence a hierarchy of all beings exists in nature, from the primitive elements to the highest organisms, a hierarchy founded on the basis of the different degrees of sensibility, with which they are endowed. Hence, also, he affirms the existence of a universal soul in nature, much like that admitted by Giordano Bruno, whose sphere is indefinite space; a soul one in itself, yet multiplied and individualized in the numberless existences of the universe. Spontaneous generation is a natural consequence of the theory of universal life. Ontology includes Theology; but while the former considers the essence of Being, its unity and the trinity of its forms in the abstract, the latter regards it in its substantial existence, as the absolute cause and finality of the universe. The intelligibility of things, as revealed to the human mind, being only potential and ideal, cannot properly be called God, who is the absolute realization of the infinite essence of being, and therefore contains in the unity of his eternal substance an infinite intelligibility, as well as an infinite reality and morality, a reality which is essentially an infinite sensibility, and a morality which is essentially an infinite love. It is therefore not through a natural intuition, but through the process of reasoning that the mind acquires a knowledge of an existing God. It is by reflecting on the logical necessity and the immutability which belong to ideality, on the conditions required by the existence of contingent realities, and the nature of moral obligation, that, by the process of integration, our reason is led to believe in the existence of an Absolute Mind, the source of all intelligibility, reality, and morality. Thus the idea of God is essentially negative, that is to say, affirms his existence, but it excludes the comprehension of his nature.

Creation is the result of divine love. The Absolute Being cannot but love being, not only in itself, but in all the possibilities of its manifestations. It is by an "infinitely wise abstraction" that the Divine Mind separates from its own intelligibility the ideal type of the universe; and it is by an "infinitely sublime imagination" that it makes it blossom, as a grand reality in the space. Yet the universe is distinct from the

Creator, because it is necessarily limited and finite; and as such it cannot be confounded with the Infinite and the Absolute, although it is identified with it in its ideal type, which indeed flows from the very bosom of the Divine Nature. Thus creation in its ideal essence is God; but it is not God in its realization, which is essentially finite. In his *Teodicea*, Rosmini strives to show that the existence of evil does not stand in contradiction with an allwise and omnipotent Providence. Man is necessarily limited, and evil is a necessary consequence of his limitation. Perfect wisdom in its action must necessarily follow immutable laws, which in their intrinsic development will come in antagonism with partial forces, and produce discords in the universal harmony. Such are the laws "of the *maximum* good to be obtained through the *minimum* of action;" "the exclusion of all superfluities;" "the graduation of all things and their mutual dependence;" "the universal law of development;" "the existence of extremes and their mutual antagonism;" finally, "the unity and the celerity of the divine action," which presides over the government of the universe. The problem of the possibility of a better world has no meaning: God may create numberless worlds, but each of them will always be best in relation to its own object. As from a box full of golden coins we can only draw golden coins, so the Creator can only draw from his own mind that which is best.

Deontology considers the archetypes of perfection in all spheres, and the means through which they may be realized. Moral science, including the philosophy of right, is one of its principal branches. This is treated by Rosmini in the following works: *I Principii della Scienza Morale*, 1831; *Storia Comparativa e Critica dei Sistemi Morali*, 1837; *Antropologia*, 1838; *Trattato della Coscienza Morale*, 1844; *Filosofia del Diritto*, 1841–43; *Opuscoli Morali*, 1841. The essence of morality consists in the relation of the will to the intrinsic order of being, as it reveals itself to our mind; hence the supreme moral principle is expressed in the formula: "Recognize practically being as you know it;" or, "Adapt your reverence and love to the degree of worth of the being, and act accordingly." The idea of being giving us the standard of this recognition, implies the first moral law, which is thus identified with the *primum notum*, the first truth, the very light of reason. Hence moral good is essentially objective, consisting in the relation of the will to ideal necessity. Thus morality is essentially distinct from utility, the former being the cause, the latter the effect;

hence Eudemonology, the science of happiness, cannot be confounded with Ethics, of which it is only a corollary. The relative worth of beings arises from the degree of their participation in the Infinite; hence man, whose mind is allied with an infinite ideality, has an infinite worth. It is through this union, not through the moral autonomy of the will, as Kant maintained, that man is a person and not a thing; and it is for this reason that actions, to be morally good, must have for their object an intelligent being. Moral categories are therefore founded on the gradations of intelligence and virtue, which is but the realization of intelligence. The duties towards ourselves are derived from the Imperative, which commands the respect and love of humanity, and we are the standard, by which we estimate the faculties and the wants of our neighbors. Rights are found in the faculty of acting according to our will, so far as protected by moral law. Man has an inalienable right to truth, virtue, and happiness, and his right to liberty and property is founded on his very personality. Domestic society is the basis of all civil organization, and the authority of the State is limited to the regulation of the *modality* of right, and never can place itself against rights given by nature. Indeed its principal object is the protection of those rights. Liberal in almost all his doctrines, Rosmini's ideas on the rights of the Church betray a confusion of Catholicism with Christianity, indeed with humanity; they are therefore extravagant as they are indefensible. It is true that in his *Le Cinque Piaghe della Chiesa*, 1848, he strove to introduce into the Church such reforms, as would have made it less antagonistic to the spirit of Christianity. In that work he urged the necessity of abolishing the use of a dead language in the religious services, of raising the standard of clerical education, of emancipating the Episcopate from political ambitions and feudal pretensions, and, above all, of intrusting the election of bishops to the people and the clergy, as is required by the very nature of the Church. His book was placed at once in the Index Expurgatorius. Rosmini applied also his philosophy to politics in his *Filosofia della Politica*, 1839; and to pedagogic science in his *Principio Supremo della Metodologia*, 1857. He is also the author of *Esposizione Critica della Filosofia di Aristotele*, 1858, *V. Gioberti e il Panteismo*, 1848, *Opuscoli Filosofici*, 1828, and of several volumes of correspondence.

A complete edition of Rosmini's works has been published in Milan and in Turin. His posthumous works are now in course of publication in Turin, under the editorship of his

disciple, F. Paoli. A *Résumé* of his system, written by himself, may be found in the *Storia universale di C. Cantù*, in its documentary part. His philosophy was early introduced into the Universities and Colleges of Piedmont, through the labors of G. Sciolla, P. Corte, and M. Tarditi, then the chief professors in the philosophical faculty at the University of Turin. The two first embodied the doctrines of Rosmini in their text-books of mental and moral philosophy; while the third, in his *Lettere di un Rosminiano*, 1841, undertook to refute the objections which Gioberti had advanced against that philosophy. It was this work, which gave Gioberti occasion to publish his voluminous work on Rosmini. Meanwhile his doctrines extended to the schools of Lombardy, owing to the writings of A. Pestalozza, whose *Elementi di Filosofia*, 1847, contain the best exposition of Rosminianism. Pestalozza is also the author of *Difesa delle Dottrine di Rosmini*, 1853, and *La Mente di Rosmini*, 1855. To the same School belong A. Manzoni, the author of the *Promessi Sposi*, who, in his *Dialogo sull' Invenzione*, applied the Rosminian principles to the art of composition; N. Tommasèo, the author of the *Dizionario Estetico*, the *Dizionario dei Sinonimi*, and of several educational works, in his *Esposizione del Sistema Filosofico di Rosmini*, 1838; *A. Rosmini*. 1855; *Studi filosofici*, 1840; and *Studi critici*; G. Cavour, the brother of the statesman of that name, in his *Fragments Philosophiques*, 1841; R. Bonghi, translator of several works of Plato and Aristotle, and author of *Compendio di Logica*, 1860, who gives an exposition of philosophical discussions held with Rosmini in his *Le Stresiane*, 1854; G. A. Rayneri, in his *Primi Principii di Metodica*, 1854; and *Della Pedagogia*, 1859; D. Berti, the author of *La Vita di G. Bruno*, 1868; V. Garelli, in his *Sulla Filosofia Morale*, 1852; and in *Biografia di A. Rosmini*, 1861; V. Villa, in his *Kant e Rosmini*, 1869; J. B. Peyretti, in his *Elementi di Filosofia*, 1857; and *Saggio di Logica generale*, 1859; B. Monti, in his *Del Fondamento, Progresso, e Sistema delle Conoscenze Umane*, 1841; V. Imbriani, in his *Sul Fausto di Goethe*, 1865; and *Dell' Organismo poetico e della Poetica popolare Italiana*, 1866; M. Minghetti, the statesman and colleague of Cavour, whose work, *Dell' Economia Publica*, bears the traces of the influence of Rosmini's doctrines; G. Allievo, in his *Hegelianismo, la Scienza e la Vita*, 1868; and P. Paganini, in his *Della Natura delle Idee secondo Platone*, 1863; *Considerazioni sulle profonde armonie della Filosofia Naturale*, 1861; *Saggio Cosmologico sullo Spazio*, 1862; and *Saggio sopra S. Tommaso e il Rosmini*, 1857. To this classification may be referred *Les Principes de Philosophie*, of T. Caluso, published in 1815, translated into Italian by P. Corte, and published in 1840 with notes of Rosmini. Prof. Corte is the author of *Elementi di Filosofia*, 1853, embracing logical, metaphysical, and ethical sciences. He published also *Anthologia ex M. T. Cicerone and L. A. Seneca in usum Philosophiæ Studiosorum concinnata*, 1851. The doctrine of Rosmini on the nature of original sin, as it was expressed in his *Trattato della Coscienza*, having been violently attacked by several ecclesiastical writers belonging to the Order of the Jesuits, it was ably defended by eminent theologians of the Catholic Church, P. Bertolozzi, G. Fantozzi, G. B. Pagani, and by L. Gastaldi, a collegiate doctor of divinity in the University of Turin, and now Archbishop of that See. On Rosmini's System, see further,—Leydel, in *Zeitschrift f. Philosophie*, 1851, 1859; *Annales de Philos. Chrétienne* (Bonnetty, ed. Paris), on Rosmini and the decree of the Index, July, 1860: also same *Annales*, 3d series, tomes X., XVIII., XX.; 4th series, I., p. 71; Bartholmèss, *Hist. critique des Doctrines Religieuses*, 2 vols., Paris, 1855; Father Lockhard, *Life of Rosmini*, Lond., 1856; Ferri, *op. cit.*, and G. Ferrari in the *Revue des Deux Mondes*, March and May, 1844.

4. ONTOLOGISM.—The Ontologic School places the "Primum philosophicum" not in simple ideal existence, but in Absolute reality, the cause of all things as well as the principle of all knowledge. This doctrine, held by St. Augustine and St. Bonaventura, and revived by Malebranche in the seventeenth century, was developed under a new form by Vincenzo Gioberti (1801–1852). He was born in Turin, received his education at the University of that city, and early became a priest. Arrested as a sympathizer with the revolutionary schemes of Mazzini, he was condemned to exile in 1833. While in France and Belgium he devoted himself to the work of Italian regeneration, and endeavored to attach the clergy to this cause. In his *Primato Morale e Civile degli Italiani*, 1843, he urged upon the papacy the necessity of placing itself at the head of the liberal movement, and becoming the champion of Italian nationality and the centre of European civilization. In his *Prolegomeni*, 1845, and *Il Gesuita Moderno*, 1846, he labored to crush the opposition with which his views were received by the reactionary party of the Church, and exposed the dangers of its policy. With the accession of Pius IX. in 1847, and the subsequent establishment of constitutional governments in the Peninsula, his ideas seemed to have triumphed. In 1848 he returned to Italy and entered at once into public life, accepting a seat in the Parliament and in the Cabinet of Piedmont, where he soon became a ruling spirit. After the battle of Novara, in 1849, he was sent to Paris as ambassador, in the hope of obtaining aid for the national cause. Unable to accomplish his mission, he resigned his office, and remaining in that city a voluntary exile, he again devoted himself to philosophical studies.

The philosophy of Gioberti is embodied in the following works: *La Teoria del Sopranaturale*, 1838; *Introduzione allo Studio della Filosofia*, 1840; *Trattato del Buono*, 1842; *Trattato del Bello*, 1841; *Errori Filosofici di A. Rosmini*, 1841–44. Philosophy, according to him, has long since ceased to exist; the last genuine philosophers were Leibnitz, Malebranche, and Vico. By substituting psychologic for the ontologic method and principles, Descartes rendered all genuine philosophic development impossible; he did in regard to philosophy what Luther did in regard to religion, by substituting private judgment for the authority of the Church. Sensualism, subjectivism, scepticism, materialism and atheism are the legitimate fruits of the doctrine of Descartes. To do away with these errors is the object of

true philosophy. Rosmini's theory cannot attain it; for it is founded on a psychologic process, assumes as a principle of knowledge a pure abstraction, and thus falls into the very errors which it proposes to combat. Through ideality the mind cannot reach reality, nor from the fact of consciousness can it ascend to universal and necessary ideas. We must therefore invert the process, and look both for method and principles not in the subject, but in the object. The object is the idea in its absolute reality, immanently present to the mind under the form of a synthetic judgment, which comprehends in itself all being and knowledge.

This judgment, as it is produced through reflection, finds its expression in the ideal formula *Ens creat existentias* (*Being creates existences:*)—the supreme principle of Ontology and of Philosophy. Through the intuition of this principle, mind is in possession at once of the real and the ideal; for the first member of the formula (*Ens*) contains the object, *Being*, the absolute idea as well as the absolute substance and cause; the second (*Existences*) gives the organic multiplicity of contingent substances and causes and relative ideas; the third (*The Creative Act*) expresses the relation existing between the absolute and the relative, the unconditional and the conditional, and the production of real and ideal existences from the Absolute. But although this intuition gives the power of intelligence to the mind, it is in itself not yet an act of knowledge; as long as it is not reproduced by the mind, it remains in a latent or germinal condition. It is only by a reflex judgment that we affirm the contents of intuition; coming to the consciousness of its elements, we become acquainted with their mutual bearing and relations. This reproduction therefore is made through ontological reflection, by which the mind, so to say, reflects itself upon the object, and through which alone it is capable of acquiring the knowledge of that ideal organism, which is expressed in the intuition. Thus the ontological method is the only true philosophical process, and stands in opposition to the psychological method, which is founded on psychological reflection, through which the mind turns its attention, not upon the object, but upon itself. But to direct its reflection upon the object of its intuition, the mind needs the stimulus of language, through which it may determine and limit the object for its comprehension. Hence the necessity of a first divine revelation, which by language supplies the instrument of our reflection, and constitutes that relation which necessarily exists between the idea itself, and the idea as it manifests

itself to our mind. For although the idea in itself is one and indivisible, in reference to the human mind it has two sides—the one which is intelligible, the other incomprehensible—thus being antithetic towards each other, and giving rise to all the apparent antinomies between Science and Religion. The faculty of superintelligence, which is inherent in all finite minds, consists in the sense which reveals to the mind its own limitations, as to the comprehension of the idea. It is through revelation that the mind acquires some positive knowledge of the superintelligibility of the idea, although always limited and clouded in mystery.

Science, being the reproduction of the ideal formula, must therefore be divided into two branches, corresponding to the intelligibility and the superintelligibility of the idea;—the one constituting the Rational Sciences, the other the Super-rational, the last being superior to the former from their more extensive comprehension of the idea through positive revelation. The genesis of sciences from the ideal formula is as follows: "*Ens*," or the subject of the formula, gives Ontology and Theology. The copula (*Creat*) demands a science which shall comprise the double relation between *Ens* and *Existences*, in both an ascending and a descending method; the descending process (from *Being* to *Existences*) originates the science of time and space, or Mathematics; the ascending (from *Existences* to *Being*) the science of the true, the good, and the beautiful, that is, Logic, Ethics, and Æsthetics. The *predicate* (*Existences*) gives rise to the spiritual and material sciences; on the one side Psychology and Cosmology, on the other, physical Science in its various branches. The super-natural sciences follow the same division.

As to the validity of the knowledge arising from this formula,—its first member expresses its own absolute reality and necessity. The intuitive judgment in which this reality and necessity are pronounced, viz., "*Ens is*," and "*Ens is necessary*," do not originate in the human mind, but are contained in the idea itself, while the mind in its primitive intuition only listens to them—repeating them in its succeeding reflex judgments. So that the validity of those judgments is not affected by the subjectivity of the mind. Thus is it with the fundamental ideas of necessity, possibility, and existence; the first being the relation of the *Ens* to itself, the second the relation of the necessary to the existing, and the third the relation of possibility to necessity. To these ideas correspond three great realities; to the first,

the Absolute reality, God; to the second, infinite or continuous magnitude, pure time and pure space; to the third, actual and discrete magnitude, the universe and its contents. Time and space are ideas, at once pure and empirical, necessary and contingent. As pure and necessary, they may be conceived as a circular expansion growing out of a single centre and extending to the infinite; by this centre, *Ens* (Being) is symbolized. As contingent and empirical, they may be represented by a circumference which projects from the centre and develops in successive degrees; in this projective development we have the finite reality, multiple and contingent in itself, but one and necessary, if considered as existing in the central point from which it emerges. For existences have a necessary relation to the *Ens*, and it is only in that relation that it is possible to know them. The very word *existences* implies their derivation from the Absolute reality; but the nature of that derivation cannot be reached through reasoning; it manifests itself in the intuition, in which it is revealed in the creative act. By considering the two extreme terms of the formula out of the relation of its copula, they become identified, and philosophy at once falls into Pantheism. Thus the creative act is the only basis of our knowledge of contingent existences. It is by bringing the phenomenal elements of perception into their relations to creative activity that the sensible becomes intelligible, and the individualizations of the idea are brought in the concrete into our minds. And as our own ideas are formed in witnessing the creative act, it follows that that they may be considered as copies of the divine idea, created and limited, yet stamped with the character of a divine origin.

Thus the ideal formula considered in relation to the universe becomes transformed into these other formulas: "the one creates the multiple," and "the multiple returns to the one,"—which express the two cycles of creative development, viz., the one, by virtue of which Existences descend from Ens, the other, by which they return to it,—a double movement, which is accomplished in the very bosom of the Ens itself, at once the efficient and the final cause of the universe. The first cycle, however, is entirely divine, while the second is divine and human, because in it human powers are brought into play. In the Garden of Eden the return of the mind to its Creator was perfect; reason predominant over passion, man's reflection was in perfect accord with the organic intuition; but the Fall altered that order, and man put himself more or less into opposition with the formula. Hence the errors of ancient Theogonies and Mythologies, and their Pantheistic and Dualistic Philosophies. Thus the Brahminic and Buddhistic doctrines of the East absorbed the universe and man himself in the first member of the formula; while the philosophical systems of the Greeks reduced everything to the third member, with the exception of Pythagoreanism and Platonism, in which the condition of its organic order was substantially preserved. Christianity restored that order through the miraculous intervention by which God, becoming man, brought the human race back to its primitive condition. In such a dispensation, the tradition which contains the organic structure of the fomula was placed in the keeping of the Church; hence its infallibility, and its right to preside over Theology, as well as the whole development of Science.

The idea as expressed in the formula becomes, in its application to the will, the supreme moral law, the basis of Ethics. While its first and second terms give us the idea of moral good, its first cause, law and obligation, the third term supplies the moral agent, and contains the conditions of moral development. It is through his free-will that man can copy the creative act by placing himself in accord with the will of God, as manifested in moral law. Hence, moral law partakes of the character of absolute reality; it is objective, apodictic, and religious, because it is founded on the very relation of God to the human will. From this relation arises an absolute right in the Creator, to which an absolute duty in man corresponds, the source of all the relative duties and rights, which spring from his relation to his fellow-creatures. It is through this accord of the human with the divine will, that man attains happiness, consisting in the voluntary union of his intellectual nature with the divine. The supreme formula of Ethics is this: "Being creates moral good through the free-will of man;" from this two others follow, corresponding with the two cycles of creation: "Free-will produces virtue by the sacrifice of passion to law," and, "Virtue produces happiness by the reconciliation of passion to law."

Æsthetic science likewise finds its principles in the ideal formula. Creation, with the ideas of time, space, and force, gives us the idea of the sublime, while *Existences*, that is to say, the real in its relation to the idea, contain the elements of the beautiful. Thus, as existences are produced and contained in the creative act, so the sublime creates and contains the beautiful. Hence the formula, "Being creates the Beautiful through the Sublime." The two ideas are correlated; they

both consist in the union of the intelligible with an imaginative element, but while in the sublime one element predominates over the other, in the beautiful the harmony of the two is preserved. Yet the two ideas are subject to the cycles already noticed in the development of the formula: "The Sublime creates the Beautiful," and "the Beautiful returns to the Sublime." In the history of art the sublime precedes the beautiful; the temple and the epic poem are the oldest forms of art. The superintelligibility of the idea gives rise to the marvellous, which, expressing itself in language, poetry, painting, and music, becomes an element of Æsthetics. The first arts resting on the organic structure of formula, it follows that only in orthodoxy can the full realization of beauty be found; heterodoxy, altering more or less that structure, introduces an intrinsic disorder into the field of Æsthetics, as well as into that of science, morality, and religion.

Gioberti at the time of his death was preparing other works, in which his ideas seem to have undergone considerable change. Imperfect and fragmentary as they were left, they were published in 1856–57 under the editorship of his friend G. Massari, and bear the following titles: *La Protologia; La Filosofia della Rivelazione; La Riforma della Chiesa.* A tendency to rationalism blended with Hegelian transcendentalism appears in those works, although ostensibly founded on the ideal formula of the first philosophy. The idea here becomes the absolute thought, which creates by its very act of thinking; sensibility is thought undeveloped, as reason is thought developed; and even the incomprehensible is but thought undeveloped, which becomes intelligible through development. Language as the instrument of reflexion plays still a conspicuous part in the woof of the absolute thought, as wrought out in creation, but it has become a natural product: and even of supernatural revelation it is said, that it may be considered natural, as soon as it is received into the mind. It is through the creative act that absolute thought appears in the development of Nature and Mind, a development which proceeds under the logical form of a Sorites, the principle of which is inexhaustible, and the progress continuous. The members of this Sorites are propositions which rest on Categories, or fundamental ideas produced by the absolute thought in its union with the mind, and the things which it creates. In the Absolute, the Categories are one and indivisible in the idea, but become multiple through the creative act. These are dual and trine; the first express the opposition between two contrary terms,

while the last reconcile the oppositions of the former. The absolute thought is the concrete and supreme Category, out of which all others receive existence through its creative activity; an existence which is developed, according to a dialectic movement. The organic structure of the Categories, which embraces the relations between the terms of each dual one, and the relations between their couples, is moulded on the ideal formula. Pantheism does not consist in a substantial synthesis of God and the universe, but in the confusion of the finite and the infinite, and of the different modes of existence which belong to them. God is infinite, both actually and potentially; the world is potentially infinite, but actually finite. With Nicolas of Cusa and Giordano Bruno it may properly be said, that the universe is "a potential God" or "a limited or contracted God." Hence, God and the universe are one in the infinite reality of the first, and in the infinite potentiality of the second; for the potentiality of the universe exists in God. As to its finitude, it is given as a term of the creative act; it is a primitive fact which is presupposed by all mental acts, which therefore cannot be reduced to other Categories and thus to the unity of the Absolute. Finite realities, however, have a double relation to the Absolute, which is determined by the *metexis* and the *mimesis;* through the former they are phenomenal copies of the divine ideas, and through the latter they participate in the divine essence, the condition of their existence.

The change in Gioberti's metaphysical ideas manifests itself in his thoughts in relation to the Church. Catholic philosophy rests no longer on the authority of an ecclesiastical organization, but on the universality and continuity of human thought, in the history of mental evolution. Religion is no longer superior to philosophy; but it is philosophy itself, enveloped in myths and symbols, so as to bring it to the intelligence of the common people. All religions are effects of the creative act, having different degrees of moral value. Christianity, however, is the complement of all religious forms, and Christ is the Man-Idea, in which the realization of the moral type fully corresponds to its inner excellence. Mysteries and miracles are facts, which cannot be considered as complete; their value consists in their relation to the future, as phenomena which contain the doctrines of Palingenesis. No Church can live which does not follow the laws of ideal development; even the universe would perish, the moment it should cease to be subject to change. The modifications introduced in his political doctrine,

he himself published a year before his death, in his *Rinnovamento Civile d'Italia*, 1851, where the papacy no longer appears as the natural support of Italian regeneration, but as its greatest obstacle. In this work, by far the best of all his voluminous productions, he gave a new programme to Italian patriots; placing the national cause under the hegemony of the king of Piedmont, he urged his countrymen to rally around that throne, the only hope of the Peninsula. This programme, carried out to the letter, has brought the Italian States under one national government, and finally made Rome the capital of the nation. No statesman, with the exception of Cavour, has ever exerted for a time so great influence on the affairs of Italy as Gioberti; his name is preserved in honor among his countrymen for the purity of his patriotism, the loftiness of his aspirations, and the liberality of his views, rather than for the solidity and the permanent value of his philosophy. On the political relations of Gioberti to Cavour, cf. *Life, Character, and Policy of Count Cavour*, by V. Botta, New York, 1862.

As a philosopher, Gioberti did not succeed in forming a large School, although the following writers doubtless derived their inspirations from his works:—Vito Fornari, *Dell' Armonia Universale*, 1850; *Lezioni sull' arte della parola*, 1857–62; G. Romano, a Jesuit, *La Scienza dell' uomo interno e suoi rapporti colla Natura e con Dio*, 1840–45; *Elementi di Filosofia*; V. Di Gioanni, *Principii della Filosofia Prima*, 1863; *Miceli, o dell'Essere Uno e Reale*, 1864; *Miceli o l'Apologia del Sistema*, 1865; N. Garzilli, *Saggio sui rapporti della Formula ideale coi problemi importanti della Filosofia*, 1850; B. De Acquisto, *Sistema della Scienza universale*, 1850; *Elementi di Filosofia fondamentale*, 1836; *Corso di Filosofia morale*, 1851; *Corso di Diritto naturale*, 1852; *Necessità dell' autorità e della legge*, 1856; *Saggio sulla natura e sulla genesi del Diritto di proprietà*, 1858; *Trattato d' Ideologia*, 1858. In the United States of America, Gioberti found a devoted interpreter in Dr. O. A. Brownson, whose able exposition of the doctrine contained in the ideal formula was published in 1864, in the Review bearing his name. To the Ontological School, although independent of Gioberti, belong G. M. Bertini, *Idee di una Filosofia della Vita*, 1850; *Questione Religiosa*, 1861; and *La Filosofia Greca prima di Socrate*, 1869; S. Centofanti, *Della Filosofia della Storia*; A. Conti, *Storia della Filosofia*, 1864; *Evidenza, Amore e Fede*, 1862; *Dio e il male*, 1865; J. Puccinotti, *Scritti Storici e Filosofici*, 1864; *Storia della Medicina*; M. Baldacchini, *Trattato sullo Scetticismo*; *La Filosofia dopo Kant*; I. Corleo, *Filosofia universale*, 1863; A. Mangeri, *Corso di Filosofia e Sistema Psico-Ontologico*, 1866; B. Labranca, *Lezioni di Filosofia razionale*, 1868; Mora and Lavarino, in their *Enciclopedia Scientifica*, 1856; S. Turbiglio, *L'impero della Logica*, 1870; and *Analisi Storica delle Filosofie di Locke e Leibnizio*, 1867. On Gioberti, *cf.* L. Ferri, and R. Mariano, *op. cit.*; Seydel in *Zeitschrift f. Philosophie*, 1856 and 1859; C. B. Smyth, *Christian Metaphysicians*, Lond., 1851.

Prominent among the Ontologists is Terenzio Mamiani; a poet,

statesman, and philosopher. He was born in Pesaro, 1799; in 1831 he joined the revolutionary movement of the Romagnas, but was arrested and condemned to exile. He took up his residence in Paris, where for fifteen years he was engaged in literary and philosophical pursuits. In 1846 he returned to Italy, and gave his support to the liberal reforms inaugurated by Pius IX. When the Pope abandoned Rome, Mamiani, as a member of the Constituent Assembly, opposed the proclamation of the Republic, as contrary to the interest of the national cause. With the restoration of the papal power by the aid of France in 1849, he retired to Piedmont, where he was elected member of Parliament and appointed professor of philosophy in the University of Turin. He was a stanch supporter of the policy of Cavour, under whose administration he held successively the offices of minister of Public Instruction and that of minister to Greece. At present he is member of the Senate and professor of the philosophy of history in the University of Rome.

In the early part of his philosophical career, represented by his *Del Rinnovamento dell' antica Filosofia Italiana*, 1834, Mamiani held the doctrine of Empiricism founded on psychological investigations, in which he strove to combine experience with reason. He maintained that the principal question of philosophy was that of method; and that this could only be found in experience and nature. It was this method which prevailed among the philosophers of the Renaissance, and to which science is indebted for its great achievements, particularly through the teachings and the example of Galileo. This publication called forth the work of Rosmini, *Il Rinnovamento*, etc., in which he controverted some of Mamiani's statements, and tried to show that the experimental method alone could not philosophically reconstruct the science of Nature and Mind. Mamiani himself soon became convinced of this, and in his works *Discorso sull' Ontologia e sul Metodo*, 1841, and *Dialoghi di Scienza Prima*, 1846, he endeavored to find a philosophical basis in common sense. In these writings appears for the first time his doctrine on immediate perception, as the only foundation of the knowledge of reality. The last phase of his doctrine is contained in his work *Confessioni di un Metafisico*, 1865. It is divided into two parts, Ontology and Cosmology. In the first he considers the Absolute, ideas, natural theology, and the creative act; in the second, the finite, its relation to the Infinite, the co-ordination of nature's means, life, finality, and progress in the universe.

His fundamental doctrines are as follows: The knowledge of the real and the ideal is effected through two faculties essentially distinct, although both acting in the subjective unity of the mind—perception and intellection. The first does not consist in a synthetic judgment *à priori*, as Rosmini and Gioberti held after Kant, but in a direct and immediate relation of the mind to finite realities, as Reid and Galuppi maintained, although they overlooked its intellectual character. Intellection consists in the relation of the mind to ideas; and, as these have an essential connection with Absolute reality, the mind may be said to possess an intrinsic relation to the "*Ente realissimo*"—the most real being. Ideas indeed are intellectual symbols of the Absolute reality in its relation of causality; and they are supplied by the intellective faculty, when the mind apprehends their realizations through perception. Thus our intelligence attains to Absolute reality through the intermedium of ideal representations, but it does not penetrate so far as to reach its essence; it remains on its surface. A similar process occurs in perception, through which the mind reaches the object given in sensibility, not in essence, but through the medium of sensation. But while our ideas are mere representative emblems, in the divine mind they are real objects in themselves; they are identical with the absolute intelligibility, the possibility, the reason of all things; they are therefore the foundation of all finite realities, their common attributes and final perfection; they are indeed the efficient and final causes of the world, manifesting themselves under the triple relation of the true, the good, and the beautiful. Hence our ideas, as representations and determinations of the divine causality, are essentially objective and immutable representations, and determinations of eternal truth. It follows that the existence of God is founded on the very nature of primitive intuition, which includes the eternal substantiality of truth, and that its demonstration *à priori* is a simple process of deduction from the principle of identity. It follows also that every ideal relation contains an eternal truth, to which an intelligible reality in God corresponds; it is therefore independent of the human mind. Ideas however are not innate; they originate in finite reality, from which they receive their determinations, and have a necessary reference to Absolute reality through their representative character. It is only through reflection that the mind discovers in itself its relation both to finite reality, contained in internal and external perception, and to Infinite reality, contained in the ideas.

Creation is the result of the infinite good, which of necessity tends to communicate itself: the idea of a God infinitely good implies the idea of a creation, founded on the greatest good, as its outward manifestation and ultimate end. This manifestation is brought forth by an infinite power, and an infinite wisdom, under the forms of the laws of causality and finality. From the very nature of the finite, and its opposition to the infinite, arises the immense cosmic diversity. Hence the universe cannot be properly represented as a sphere; it is rather to be regarded as a system of numberless spheres, moving concentrically in various directions, and forming that universal harmony, which is the highest expression of the infinite good. As the cosmic diversity is equal to its possibility, it follows that there is only one idea of the universe in the divine mind as well as in the universe itself, although in a continuous generation and development. The idea of a better world is impossible; because the idea of the universe, which is in the act of developing, contains already all possibilities. Evil is inherent in the finite; but it diminishes, as the finite more and more approaches the infinite, and in this progressive union of the one with the other lies the ultimate end of creation. In the achievement of this end, the divine causality creates and determines the whole, the divine intelligence prearranges the whole, while nature produces the whole under the influence of that causality and intelligence. The *finite* is an aggregate of monads or forces, which are brought together by their mutual attraction; thus a communication arises between those, which have a character of similarity, a participation between the diverse ones, and a co-ordination of all.

Hence arises the Cosmic System, with its great divisions of nature, life, and mind. Nature reveals itself first in the stellar order, in the ether in connection with light, heat, and electricity, and in the order of chemical compounds. In the elaboration of the syntheses preparatory to the final ones, the Divine Art is revealed in that wise co-ordination of means which is produced by the union and separation, the action and reaction of homogeneous, as well as heterogenous forces. But it is only in life that finality appears, for life alone contains the possibility of receiving the communication of good, which is the essence and the object of creation. Life is the development through a suitable organization of the individual, in reference to its participation in the good. At its lowest degree it is nothing but a chemical compound, enclosed in a cellular envelope and capable of

reproducing itself; at its highest point it is an intellectual and volitional activity which tends to an absolute object, and to this end co-ordinates all the means at its disposal. Between the two extremes there are numberless degrees of activity, each developing in accordance with its own end. Vegetation, animality, and spirituality mark the principal degrees in the scale of life. In these three manifestations life is a specific force. Büchner and other Scientists, who give to matter the power of producing life, deny the existence of this specific force, and attribute it to a cause, which in itself has not the elements necessary to its development. So Darwin's theory of the genesis of species involves the negation of the objective reality of the idea or specific essence, containing a substantial fixedness of character and form, and the power of producing itself within the limits of its own nature. It confounds accidental varieties with substantial transformations, and artificial means with natural processes. It is contrary to all historical experience, and the constant fact of the sterility of hybrids; it stands in contradiction with itself in the bearing of the two laws of the struggle for life, and natural selection, which will restrict rather than widen the limits of development, and keep the species within their own boundaries, rather than expand them into new forms and modes of existence.

The order of life in relation to the general end of creation begins with plants; here the living force has the specific value of being the organ for animal life, or rather it is the laboratory in which its elements are prepared; it passes over into animality, which has a real relation of "finality," although limited and relative, as are its senses and instincts, through which it enjoys participation in the divine good. Man alone, whose life is partly the growth of vegetation and animality, is an absolute finality, for he alone has a life, through which he can know and act in accordance with the Absolute. The law of indefinite progress is universal and necessary, founded as it is in the very object of creation, in the divine goodness, and the progressive union of the finite with the infinite. This law, which embraces all the universe, is still more apparent in the development of mankind. But in order that it may be verified in history, its application must comprehend humanity as an organic and spiritual unit; it would fail if applied to isolated nations, or measured by an invariable type, as Vico insisted. To see the full bearing of this law, mankind must be regarded in the multitude of its

nationalities, in the variety of their character, in the multiplicity of the elements and of the ages of civilization. The law itself must be viewed in its different aspects, and in the agencies which are at work to carry it out in history; such as the influence of national aristocracies, the subordination of lower to higher forms of civilization, the mingling of races, and the expansion of social forces, through which a kind of polarity among nations is created. All these and other causes, while they preserve the spiritual unity of mankind, maintain its growth and secure its general advancement.

Besides the works already mentioned, Mamiani wrote also *Meditazioni Cartesiane*, 1868, and *Di un Nuovo Diritto Europeo*, 1859, in which he strove to establish international right on a philosophical basis. In his *Rinascimento Cattolico*, 1862, he contemplated the possibility of a reform in the Catholic Church, that should reconcile it with the spirit of modern times. He is also the author of *Teoria della Religione e dello Stato, e dei suoi rapporti speciali con Roma e colle Nazioni Cattoliche*, 1868; *Sei Lettere a Rosmini*, 1838; *Saggi di Filosofia Civile*, 1865; *Saggi Politici*, 1853.

Among the writers who have treated of Mamiani's philosophy, the more prominent are Luigi Ferri, the author of the *Essai sur l'Histoire de la Philosophie en Italie au* 19me *Siècle*, 1869; Marc Debrit, *Histoire des Doctrines Philosophiques dans l'Italie Contemporaine*, 1859. (These two writers, particularly the first, give a complete survey of the principal systems of contemporary philosophy in Italy.) See also F. Lavarino, *La Logica e la Filosofia del Conte T. Mamiani*, 1870; F. Fiorentino, several articles in the *Rivista di Bologna*, 1867, under the title of *Positivismo e Platonismo in Italia*; Brentazzoli, the author of *Di un' ulteriore e definitivo esplicamento della Filosofia Scolastica*, 1861; Tagliaferri, who wrote on Mamiani's theory, 1867; and F. Bonatelli, who discussed the ontological argument of the existence of God as presented by Mamiani in *Bonatelli and Mamiani*, 1867. Bonatelli is also the author of *La Coscienza*, 1872, and of a sketch of Italian philosophy since 1815, published in the *Zeitschrift für Philosophie und Philosophische Kritik*, Halle, 1869. To the Ontologic classification may also be reduced the *Dialoghi Politico-Filosofici di G. Buscarini*, 1870; and *Sopra la Filosofia del Diritto Publico Interno di L. C. di Montagnini*, 1870; also, *La Filosofia delle Scuole Italiane*, a philosophical Review supported by Mamiani, D. Berti, R. Bonghi, G. Barzellotti, and other members of an association recently established in Rome for the promotion of philosophical studies; *Il Gerdil*, a weekly periodical published in Turin, under the editorship of Prof. Allievo, chiefly intended to reconcile philosophy with Christianity; and *Il Campo dei Filosofi Italiani*, a philosophical periodical published in Naples, and edited by Prof. Milone.

5. Absolute Idealism or Hegelianism.—Augusto Vera is the recognized head of the Hegelian School in Italy. He was born in Amelia, a city of Umbria, in 1817, and early went to Paris, where he completed his education. Having spent some years in

Switzerland, as professor of Greek and Latin literature, he returned to Paris, and was appointed professor of philosophy in several Colleges connected with the University of France. In 1860 he returned to Italy, where he was at once made professor of philosophy in the Royal Academy of Milan. In 1861 he was transferred to the University of Naples, where he still holds the professorship of the history of philosophy and the philosophy of history. His works are devoted to the interpretation and application of the Hegelian philosophy, and are almost all written in French. They are as follows:—

Problème de la Certitude; L'Hégélianisme et la Philosophie, 1861; *Mélanges Philosophiques*, 1862; *Essais de Philosophie Hégélienne*, 1864; *Introduction à la Philosophie d'Hégel*, 1853, 2d ed., 1864; *Logique d'Hégel; Philosophie de la Nature d'Hégel; Philosophie de l'Esprit d'Hégel; Philosophie de la Religion d'Hégel; Platonis Aristotelis et Hegelii de medio termino Doctrina; Inquiry into Speculative and Experimental Science*, Lond., 1856; *Lezioni sulla Filosofia della Storia; Prolusioni alla Storia della Filosofia* (epoca Socratica), *ed alla Filosofia della Storia; Il Problema dell' Assoluto; Il Cavour e la libera Chiesa in libero Stato*, in which the doctrine of the separation of the Church from the State held by Cavour is opposed on philosophical and political grounds. He also translated into English the *History of Religion and of the Christian Church* by Bretschneider, London. In his works Vera not only interprets and expounds Hegel's philosophy, but develops it and expresses it in a more intelligible form, thus rendering it accessible to students not familiar with Hegelian terminology. In his *Introduction à la Philosophie d'Hégel* he rejects the Trinity of being, thought, and motion which Trendelenburg proposed to substitute to the Hegelian Trinity of being, not being and becoming; he also confutes French Eclecticism and the materialistic theories of Büchner and Moleschott. In his *Inquiry into Speculative and Experimental Science* he refutes the doctrines of Bacon, Locke, and other representatives of Empiricism. His labors have been highly praised by eminent German Hegelians, among whom is Rosenkranz in "*Der Gedanke*," Vol. V., B. 1, and in his *Wissenschaft der Logischen Idee*. See also an article of Emile Saisset in the *Revue des Deux Mondes*, 15 December, 1860. Among other Hegelians in Italy may be mentioned: Bertrando Spaventa, who, in his *Filosofia di Gioberti*, 1863, aimed to show the connection of the doctrines of this philosopher with the ideas of Hegel. He is also the author of *Introduzione alle Lezioni di Filosofia*, 1862, *Principii di Filosofia*, 1867; *Saggi di Critica filosofica, politica e religiosa*, 1867; *Filosofia di Kant e sua relazione colla Filosofia Italiana*, 1860. The Marchioness Marianne Florenzi-Waddington was at first a disciple of Schelling, whose dialogue *On Bruno* and *Lectures on the Philosophy of Religion* she translated into Italian. In her later works, however, she adopted the fundamental ideas and the terminology of Hegel. She wrote *Filosofemi di Cosmologia e di Ontologia*, 1863; *Saggi di Psicologia e di Logica*, 1864; *Saggio sulla Natura*, 1866; *Saggio sulla Filosofia dello Spirito*, 1867; *Dell' immortalità dell' anima umana*, 1868; *Riflessioni sul Socialismo e Comunismo*, 1850. Here belongs also Fr. Fiorentino, the author of *Pietro Pomponacci—Telesio*, and *Studj Storici sulla Scuola di Bologna e di Padova al Secolo* 16°. He also wrote on *Positivism and Platonism in Italy*, 1867 (Rivista di Bologna.) Rafaelle Mariano wrote *La Philosophie Contemporaine en Italie*, 1868; *Lasalle e il suo Eraclito*, 1865; *Il Risorgimento Italiano secondo i principii della Filosofia della Storia di Hegel*, 1866; *Il Problema Religioso in Italia*, 1872. Among those who have devoted themselves to the application of the Hegelian doctrine to the special branches of science may be mentioned C. De Meis, naturalist and physiologist; De-Sanctis, Marselli, Delzio, Salvetti, Stanislao Gatti, M. Vitto, Camerini, and Trani, who applied it particularly to literary and historical criticism, and to political, juridical and æsthetical sciences.

6. Scholasticism.—The philosophical development of Italian philosophy in the nineteenth century is distinguished by its national character, and the decided impulse it has given to the reconstruction of Italy, on the basis of independence and liberty. An exception to this general tendency is to be found in the writers who, laboring in the interests of the Church, have striven to re-establish Scholasticism, and with it sacerdotal domination over national thought. Giovachino Ventura (1792–1861) is the principal representative of this School. He was born in Palermo, and early became a member of the Order of the Theatins. He was soon elected Superior-General of the Order, and held a high position in the government of the Church. He was one of the most prominent supporters of the reforms inaugurated by Pius IX. In his eulogy on O'Connell, in his funeral oration on the victims of the revolution of Vienna in 1848, and in his sermons delivered in the Chapel of the Tuileries, in Paris, 1857–58, he continued to show himself a warm champion of popular rights. In his philosophical works, however, he constantly maintained the fundamental idea of Scholasticism, placing the authority of the Church above reason and human conscience, indeed above all sovereignty. Holding that philosophy was but a deduction from revelation, he asserted that the ultimate criterion of truth lay in that authority. It is true, he says, that ideas originate in sensations, and in the subsequent images which are left by them in the mind; but ideas have no value if not incorporated in language, which is itself derived from revelation. Philosophy reached its culminating point in St. Thomas Aquinas, and nothing is left to philosophers but to study, and to expound the doctrines of that writer. Ventura is the author of the following works: *De Methodo Philosophandi*, 1828; *De la Vraie et de la Fausse Philosophie*, 1852; *La Tradition et les Semipelagiens de la Philosophie*, 1854; *La Raison Philosophique et Catholique*, 1854. *La Philosophie Chrétienne*, 1861. *Cf. Le Père Ventura et la Philosophie*, par Chs. de Remusat in *La Revue des Deux Mondes*, Février, 1853; also, *Etudes Morales et Littéraires* par A. de Broglie, 1853. See also on Ventura, *Brownson's Quarterly Review*, Oct. 1855; and *Annales de Philosophie Chrétienne*, Paris, Nov. 1861.

To the same School belongs M. Liberatore, a Jesuit, the author of *Institutiones Philosophicæ*, 1851; *Saggio sulla Conoscenza Intellettuale*, 1855; *Ethica et Jus Naturæ*, 1858. *Compendium Logicæ et Metaphysicæ*, 1868. Liberatore rejects the vision of God, as well as the doctrine of pure tradition, as the principle of knowledge, and holds that human reason, aided by the senses and the power of abstraction, can originate ideas, and attain truth and certainty in the order of nature. But above nature and man there is the authority of the Church, the only infallible guide in philosophy as well as in theology. To the same School may be referred Sanseverino, author of *Philosophia Christiana cum antiqua et nova comparata*, 1862; C. de Crescenzio who wrote *Scuole di Filosofia*, 1866; F. Capozza, author of *Sulla Filosofia dei Padri e Dottori della Chiesa e in ispecialità di San Tommaso in opposizione alla Filosofia moderna*, 1868; also P. Tapparelli d' Azeglio, a Jesuit, brother of the statesman of the same name, the author of *Esame Critico dei Governi Rappresentativi delle Società Moderne*, 1854, and *Saggio teorico del Diritto Naturale fondato sull' esperienza*, 1855.

La Civiltà Cattolica, a monthly Review, literary, political, and philosophical, published in Rome, is the principal organ of this sect. It was established in 1850, and since its origin it has been chiefly edited by writers belonging to the Order of the Jesuits, such as Liberatore, Perrone, Azeglio, Bresciani, and Curci. The fundamental idea of this Periodical is the insufficiency of human reason in all questions which refer to religion, philosophy, morality, jurisprudence, and politics. European civilization is the result of Catholicism, and it is only in Catholicism that man and society can find a basis for their development. Protestantism, liberty of conscience and thought are only sources of infidelity and revolution, and it is only by subjecting itself to the authority of the Church, that the human mind can re-establish its natural relations with God and man. The revolution which has made Italy one, having been carried out against the interests of the Church, is anti-Catholic and anti-Christian. These doctrines have received the sanction of Pius IX., who in his Syllabus, 1864, condemned as monstrous errors the following propositions:—"Moral science and philosophy are independent of the authority of the Church;" "Philosophy may be treated without regard to revelation;" "The principles and the method of the Scholastics are not in accordance with the need, and the progress of science;" "Every one may embrace that religion, which he in his conscience may think true;" "Protestantism

is a form of Christianity, in which man may please God, equally as well as if he were in the Catholic Church;" "Common schools ought to be exempted from the authority of the Church." These and other propositions, proclaimed as religious errors, received formal condemnation from the Church in the Council of the Vatican, 1870, through the dogmatic definition of papal infallibility, the logical consequence of genuine Catholicism and the highest synthesis of Scholasticism.

7. Positivism, or rationalistic naturalism, as implying the negation of all metaphysical science, is represented by Giuseppe Ferrari. A Lombard by birth, and a disciple of Romagnosi, he early visited Paris, where he became connected with the University of France, as associate doctor. He afterwards held a professorship in the University of Strasbourg, which he was obliged to resign on account of his radical opinions. In 1859 he returned to Italy, entered Parliament, and was appointed professor of philosophy successively in Turin, Milan, and Florence. Admitting as insoluble the antinomies of reason in the sense of Kant, Ferrari holds that experience is the only foundation of truth. There are two species of contradiction into which the mind may fall, the positive and the critical. The former arise from faults of reasoning, and may disappear through a verification of the intellectual process. The latter are the results of a fatal law of the mind, and cannot be avoided. Kant reduced these contradictions to the ideas having reference to God, the world, and man; but in fact they are numberless; they are in us and out of us; they manifest themselves in our ideas and actions, in both the theoretical and the practical order. Their universality is the law of mind and nature. Hegel with an effort of genius attempted to reduce them to a rational unity; but he succeeded only in giving us a philosophy of contradictions. His failure shows the impossibility of metaphysical science, and the futility of the labors of metaphysicians to find a relation between Nature and Logic. Between the two there is no relation; the former is founded on the law of contrast and change, the latter on identity; hence there is an essential opposition between them, which renders it impossible to represent reality in accordance with mental ideality. Indeed the mind itself is subject to the law of opposition, so that in reality an absolute identity even in the logical order is an impossibility. The effort therefore to reduce nature and mind to scientific unity must inevitably result in transforming the critical antimonies into positive ones, and thus in making error a necessity. The mind is neither

superior nor equal to nature; it is its child; and it is only in submission to nature that it can co-ordinate its thoughts, determine its knowledge, and find a basis for speculation. Phenomenalism, therefore, with all the oppositions which are revealed in the ever-changing movement of nature, is the object as well as the limit of our intelligence. The ideal relations, such as the relations of quality and substance, of effect and cause, of finite and infinite, and all others which relate to the supreme laws of nature and thought, are so many oppositions which predominate in the universe, and in all our analyses; they are the inexplicable conditions of our knowledge, and the insuperable limits of all science. An impenetrable mystery envelopes them, and the mind can neither explain nor reconcile them. Hence it follows that no absolute truth exists in the human mind, and that philosophy is only so far true as it does not overstep the limits of a phenomenal experience, the cause of which is an everlasting movement, and its law a perpetual opposition.

Led by these ideas, Ferrari attempts a philosophical reconstruction of the political development of nations, founded exclusively on experience and induction. He establishes therefore a general and uniform type of this development, and divides it into four periods, each comprising about thirty years. The first period is an epoch of *preparation*, in which new ideas are manifested, and the germs of future events and laws deposited in the soul of the people. This is followed by the period of *explosion*, in which those germs, having reached their maturity, burst forth in explicit ideas, and are transformed into political action. A phasis of *reaction* next appears, by which a temporary return is made to the ancient régime, and the new form of civilization and the doctrines of revolution are momentarily suppressed. In this phase the body politic finds itself in a kind of oscillation between the old and the new, seeking its equilibrium. Finally, the last period completes the movement through a *solution*, and it ends with ingrafting the new ideas in the minds of the people, and in the character of the government. Thus in France, Louis XIV. represents the first period, the revolution the second, the last years of Napoleon and the kingdoms of Louis XVIII., Charles X., and Louis Philippe the third, while the fourth begins in the revolution of 1848, is interrupted by the second empire, and recommences with its fall. Ferrari is the author of *La Mente di G. B. Vico*, 1837; *La Mente di G. D. Romagnosi*, 1835; *De l'Erreur: Vico e l'Italie*, 1839; *Idées sur la Politique de Platon et d'Aristote; Essai sur le Principe et les Limites de la Philosophie de l'Histoire; Histoire de la Raison de l'Etat; Histoire des Révolutions d'Italie*, 1858; *Corso di Lezioni sugli Scrittori Politici Italiani*, 1862–63; *Filosofia della Rivoluzione*, 1851.

Ausonio Franchi (a nom de plume assumed by F. Bonavino) is another representative of this School. In his youth he became a priest, but soon renounced this position, and avowed himself a rationalist and a naturalist. He is now professor of the philosophy of history in the University of Pavia. In his work, *La Filosofia delle Scuole Italiane*, 1852, he attempts a criticism of the philosophies of Rosmini, Gioberti, and Mamiani, and rejects them all as exponents of old Scholasticism under new forms. Admitting the negative part of the doctrine of Kant, he derives his positive ideas from the French philosophers of the 18th century. Nature and its phenomena are the limits of our knowledge, and time and space its exclusive conditions. There is no other reality, which the mind can reach; there is no substance, no truth in itself. The infinite is only the indefinite, and even this is not real, but ideal. In his book *Del Sentimento*, 1854, Franchi rests his psychology on sensation, and makes this the origin of all mental faculties. Applying these ideas to religion in his *La Religione del Secolo* 19°, 1853, and in his *Il Razionalismo del Popolo*, 1856, he borrows from Feuerbach, from Comte and other positivists, the idea of humanity as the basis and the object of a genuine rationalistic religion. In his Review, *La Ragione*, which he established in 1854, he discussed the most important questions of philosophy, religion, and politics, showing a decided tendency towards Socialism, yet maintaining a proper regard for the rights of property and the institution of the family. He is also the author of *Lezioni sulla Storia della Filosofia Moderna*, 1863, and of the work *Sulla Teorica del Giudizio*, 1871. Jacques Moleschott, professor in the University of Turin, in his *La Circulation de la Vie*, 1866, and other numerous works on physiology, Salvator Tommasi, professor in the University of Naples, author of the *Naturalismo Moderno*, 1866, and other eminent physiologists and scientists, contend that all knowledge is essentially relative and finite, and that therefore all questions relating to the Absolute and the Infinite are insoluble; hence they assert that the province of philosophy must be confined within the limits of natural science.

To this School, although from an entirely different point of view, may be referred Pasquale Villari, the author of *La Storia di Savonarola*, 1858, who in his *Saggi di Storia, Critica, e Politica*, 1868, insists on the exclusive application of the historical method to philosophical sciences, a method, the adoption of which is urged by Raffaele Lambruschini, the author of *Dell' Educazione e dell' Istruzione*, 1849, *La Guida dell' Educatore*, and other valuable works on education; cf. his *La Filosofia Positiva esaminata secondo i Principii della Pedagogia*, in the *Gioventù* of Florence, June, 1868, a weekly paper devoted to the progress of education. The following writers, under different aspects, illustrate the contemporary history of Positive Philosophy in Italy:—Bissolati, *Introduzione alle Istituzioni Pirroniane*, 1870; A. Secchi, *Unità delle Forze Fisiche*, 1864; Pozzolini, *Induzione delle Forze Fisiche*, 1868; Barbera, *La Legge universale di rotazione*, and *Newton e la Filosofia naturale*, 1870; A. Martinozzoli, *La Teoria della Filosofia*, 1870; B. Bianco, *La Rivoluzione nella Filosofia, ossia il Vero ed il Lecito applicati al Materialismo*, 1870; T. Dandolo, *Storia del Pensiero nei tempi moderni*, 1871; G. Coco-Zanghi, *Antropologia, l' Uomo e la Scimmia*, 1871; A. Angiulli, *La Filosofia e la Ricerca Positiva*, 1869; P. Siciliani, *Sul Rinnovamento della Filosofia Positiva in Italia*, 1871; G. Barzellotti, *La Morale nella Filosofia Positiva*, 1872. R. Lanciano, *Saggio di Scienza Prima*, 1871; *L' Universo, l' Astro e l' Individuo*, 1872; M. Panizza, *Il Positivismo Filosofico, e il Positivismo Scientifico, Lettere ad Ermanno L. F. Helmholtz*, 1871.

ADDENDA.

Dr. Ueberweg, some time before his death, and before the publication of the third edition of the last part of his History of Philosophy (1872), kindly forwarded to the translator a copy of the most important additions and alterations which were to appear in that edition. The second volume of this translation, up to and including § 132, was already in print when the third edition of the original appeared. The manuscript for paragraphs 133–135 was immediately revised so as to include the further and latest additions to those paragraphs in the original. We append here further bibliographical and other additions to the other paragraphs in this volume, which it was impossible to incorporate into the body of the work.

To § 107:—

Ed. Zeller, *Gesch. der deutschen Philos. seit Leibnitz* [1871? belongs, together with Dorner's "History of German Theology," Lotze's "History of Æsthetics in Germany," and other works, to the series of volumes constituting the "History of the Sciences in Germany," published at Munich under the patronage of the king of Bavaria.—*Tr.*] August Tabulski, *Ueber den Einfluss der Mathem. auf die gesch. Entw. d. Philos. bis auf Kant* (Jena Inaug. Dissert.), Leipsic, 1868.

To § 109:—

Max Maywald, *Ueber die Lehre von der zweifachen Wahrheit*, Berlin, 1871.

Hugo Delff, *Dante Alighieri*, Leipsic, 1869 (seeks to point out relations to Platonism and mysticism in Dante); J. A. Scartazzini, *Dante Al., seine Zeit, s. Leben u. s. Werke*, Berlin, 1869.

Writers on Bessarion are: Al. Bandini (Rome, 1777), Hacke (Haarlem, 1840), and O. Raggi (Rome, 1844); cf. also Boissonade, *Anecd. gr. V.*, p. 454, seq.

Of Reuchlin, L. Geiger has recently written (Leipsic, 1871).

Joh. Vahlen, *Lorenzo Valla* (an address delivered in 1864), 2d reprint, Berlin, 1870. On Valla's *Dialecticæ Disputationes*, see Prantl, *Gesch. d. Logik*, IV., Leips., 1870, pp. 161–167.

W. Schmitz, *Petrus Ramus als Schulmann*, in the *N. Jahrb. f. Philol. u. Päd.*, vol. 98, 1868, pp. 567–574; Benjamin Chagnard, *Ramus et ses opinions religieuses*, Strasburg, 1869.

Montaigne, *Essais. Texte original de* 1580, *avec les variantes des éditions de* 1582 *et* 1587, *publ. par R. Dezeimeris et H. Barkhausen*, Vol. I., Bordeaux, 1870; A. Leveau, *Etude sur les Essais de Montaigne*, Paris, 1870.

A new work on the history of modern skepticism is the following: H. Was, *Geschiedenis von het Scepticisme der seventiende eeuw in de vornaamste Europeesche Staaten*, Vol. I. (on the History of Skepticism in England), Utrecht, 1870.

Gennadius' κατὰ τῶν Πλήθωνος ἀπορίων ἐπ' Ἀριστοτέλει has been edited by M. Minas, Paris, 1858.

The *De Re dialectica*, by George of Trebizond, was printed at Lyons in 1559. While reproducing the Aristotelian school-tradition, it gives evidence also of the influence of Cicero.

The following paragraph is to be added, p. 8, line 13 from below:

"Leonardus Aretinus (L. Bruni of Arezzo, died 1444) first laid in the years 1397 and 1398, at Florence, Rome, and Venice, the foundations of a permanent interest in the study of the Greek language. He translated some of Aristotle's works, in particu-

lar the *Nicomachean Ethics* and the *Politica* (the latter, according to Oncken's conjecture—*Die Staatslehre des Arist.*, Leips., 1870, p. 79—from a manuscript brought by Francesco Filelfo in 1429 from Constantinople), into Latin, and these translations took the place of the grossly literal, tasteless, and unintelligent translations, which Moerbecke, at the instance of Thomas Aquinas, had made. In his *De Disputationum usu* (ed. by Feuerlin, Nuremberg, 1734) he combats the scholastic barbarism, and recommends, in addition to Aristotle (the text of whose works he regards as greatly corrupted), in particular Varro and Cicero. Of like mind with him was Æneas Sylvius Piccolomini (Pope Pius II., died 1464; of him Georg Voigt has written, Berlin, 1856–63)."

To § 110 :—

J. H. Stuss, *De Luthero philosopho eclectico*, Gotha, 1730; *Luther's Philos. von Theophilos*, Hannover, 1870.

On Melanchthon see Buhle, *Gesch. d. n. Philos.*, II. 2, Gött., 1801, p. 478 seq.; Arthur Richter, *M.'s Verdienste um den philos. Unterricht*, Leipsic, 1870.

To § 111 :—

Cf. Martini, *Das Hospital Cues und dessen Stifter*, Treves, 1841. F. A. Scharpff, *Der Cardinal und Bischof Nicolaus von Cusa als Reformator in Kirche, Reich u. Philos. des 15. Jahrh.*, Tübingen, 1871.

M. B. Lessing, *Paracelsus, sein Leben und Denken*, Berlin, 1839; Emil Schmeisser, *Die Medicin des Paracelsus im Zusammenhang mit seiner Philos. dargestellt* (Inaug. Dissert.), Berlin, 1869.

The following authors, among others, treat of Galileo: Max Parchappe, *Galilée*, Paris, 1866; Emil Wohlwill, *Der Inquisitionsprocess des G. G.*, Berlin, 1870. [Sir D. Brewster, *Martyrs of Science*, 4th ed., Lond., 1859. Articles in *Catholic World*, Vol. 8, N. York, 1869, pp. 321–339, 433–453; *Dublin Rev.* Oct. 1865; *Rev. d. deux Mondes*, 1864; Abbé Castelnau, *Vie de G.* Paris, 1870.—*Tr.*]

J. Toulan, *Etude sur Lucilio Vanini condamné et exécuté à Toulouse le 9 Février 1619 comme coupable d'athéisme*, Strasburg, 1869.

Additional references on Jacob Boehme are the following: Abr. Calov, *Anti-Böhmius*, Wittenberg, 1684; Erasmus Francisci, *Gegenstrahl der Morgenröthe*, Nuremberg, 1685; Franz von Baader, *Vorlesungen über B.'s Theologumena und Philosopheme*, in Baader's Complete Works, Vol. III., pp. 357–436; *Vorl. u. Erläut. über J. B.'s Lehre*, ed. by Hamberger, *ibid.*, Vol. XIII.; Moritz Carrière, *Die philos. Weltanschauung der Reformationszeit*, pp. 607–725; Adolf von Harless, *J. B. u. die Alchymisten, nebst einem Anhang über J. G. Gichtel's Leben und Irrthümer*, Berlin, 1870.

Franz von Baader treats of St. Martin, in the 12th vol. of his Complete Works, ed. by von Osten-Sacken, Leipsic, 1860.

The *Il Principe* of Macchiavelli has been newly translated and annotated by Alfred Eberhard (Berlin, 1868), and also in the *Hist.-pol. Bibl.* (Berlin, 1870), by W. W. Grützmacher (together with a translation, by L. B. Förster, of Frederick the Great's Anti-Macchiavelli, together with two minor political essays by Frederick). Cf. further Karl Twesten, *Macchiavelli*, in the third series of the *Sammlung gemeinverst. Vortr u. Abhandl.*, Berlin, 1868, and the work on M. by C. Giambelli, Turin, 1869.

On Thomas More, see W. Jos. Walter, *Life of Sir Thomas More*, London, 1839 (French transl., 5th ed., Tours, 1868). [Translation of Erasmus' letter to Ulric Hutten on Sir Th. M., in *North Am. Rev.*, 8, 1818, pp. 181–191; articles in *Westm. Rev.*, 11, 1829, pp. 193–211 (on Southey's Sir Th. M.), *N. Brit. Rev.*, 30, 1859 (on More and the Reformation), *Am. Ch. Rev.*, 21, N. York, 1869, pp. 1–34, 268–299, *Dubl. Univ. Mag.*, 1867, pp. 603–621, *Catholic World*, V., p. 633 seq. (New York). Life of More, by Sir James Mackintosh, in Mackintosh's *Miscellaneous Works.*—*Tr.*]

C. Broere, *Hugo Grotius' Rückkehr z. katholischen Glauben* (transl. from the Dutch by L. Clarus; ed. by F. X. Schulte), Treves, 1871.

To § 113 :—

Pensées de Bacon, Kepler, Newton et Euler sur la relig. et la morale, recueillies par Emery, Tours, 1870; J. H. v. Kirchmann, *Bacon's Leben und Schriften*, in the *Philos. Bibliothek*, Vol. 32, Berlin, 1870, pp. 1–26; P. Stapfer, *Qualis sapientiæ antiquæ laudator, qualis interpres Fr. B. exstiterit* (Thesis), Paris, 1870. [A. E. Finch, *On the Inductive Philos., including a Parallel between Lord Bacon and A. Comte as Philosophers* (an address), Lond., 1872; Max Müller, *The Philos. of Bacon*, in *Chips from a Germ. Workshop*, Vol. III.; Baron Liebig, *Bacon as a Natural Philosopher*, in *Macmillan's Magazine*, VIII., 1863, pp. 237–249 and 257–267; Sir James Mackintosh, *The Philos. Genius of B. and Locke*, in his *Miscell. Works;* E. Everett, *Character of Bacon*, in *North Am. Rev.*, 16, 1823, pp. 300–337; A. R. Bledsoe, *Bacon and his Philos.*, in *Meth. Qu. Rev.*, 29, N. York, 1847, pp. 22–52; articles in *New Englander*, New Haven, 1852, X., pp. 333–374, and *Chr. Examiner*, New York, 1862, 71, pp. 157–182.—*Tr.*]

"Bacon was filled with real love for science; but the power of political ambition and the love of ostentation in him were still greater. His character was not a great and pure one; still the charges against him have often been exaggerated. It was his official duty, as the attorney of the Crown, to bring the accusation against the Earl of Essex, his previous patron, after that the latter had entered into treasonable negotiations with king James of Scotland against Elizabeth. Bacon's course in accepting gifts, as Lord Chancellor, from the parties to actions, and, as Lord Chancellor, from applicants for patents and licenses, cannot be justified. In his written answer to the bill of indictment presented to him by the House of Lords in April, 1621, Bacon confessed himself guilty on all of the twenty-eight points mentioned, affirming, however, that he only received the gifts after the cases had been decided (and this appears to have been altogether true), and that he never allowed himself to be led through the expectation of them into giving a partisan judgment (a statement the truth of which may be doubted). The reception of such gifts was so common in Bacon's time, that his individual guilt may fairly be reckoned as palliated, though not wholly removed, by the prevalent abuse; for a just moral judgment takes into consideration not only the absolute rule of right, but also the average conduct of the contemporaries of the accused." (Addition to p. 36, account of Bacon's life.)

To § 114 :—

Descartes, Lettres inéd. précédées d'une introd. par E. de Budé, Paris, 1868. All of the philos. writings of Descartes (*Discours, Méditations, Princip. Philos., and Passiones Animæ*) have been translated [into German] and accompanied with commentaries, in the *Philos. Bibliothek*, Berlin, 1870.—J. Millet, *Descartes, son hist. depuis 1637, sa phil., son rôle dans le mouvement général de l'esprit humain*, Paris, 1870; W. Ernst, *Descartes, sein Leben und Denken, Skizze*, Leipa (Bohemia), 1869; P. Knoodt, *De Cartesii sententia: cogito ergo sum* (Dissert.), Breslau, 1845; F. Volkmer, *Das Verhältniss von Geist und Körper im Menschen, nach Cartesius*, Breslau, 1869; E. Buss, *Montesquieu und Cartesius*, in the *Philos. Monatsh.*, IV. 1, Berlin, 1869, pp. 1–38; Bertrand de St. Germain, *Desc. considéré comme physiologiste et comme médecin*, Paris, 1870; Ludovic Carrau, *Expos. crit. de la théorie des passions dans Desc., Malebranche et Spinoza* (Thesis), Strasburg, 1870. [A translation of *The Meditations of Descartes*, by Wm. R. Walker, was published in the four numbers of the *Journal of Specul. Philos.*, Vol. IV., St. Louis, 1870. *Discourse on the Method of rightly conducting the Reason and seeking truth in the Sciences*, transl. fr. the French, Edinburgh, 1850. Articles on Descartes in the *North Am. Review*, 56, 1843, pp. 69–89 (review of Hallam's *Literature of Europe*), and *Ed. Review* (on *Genius and Writings of D.*), 95, 1852, pp. 1–30 (Am. ed.).—*Tr.*]

[E. Sheldon, *Pierre Bayle*, in *N. Am. Rev.*, 111, 1870, pp. 377–402.—*Tr.*]

Th. Lorriaux, *Etudes sur les pensées de Pascal*, Strasburg, 1862; Theophil Wilh. Ecklin, *Bl. Pascal, ein Zeuge der Wahrheit*, Basel, 1870; A. Vinet, *Etudes sur Pascal*, Paris, 1848, 2d ed., 1856; C. F. Schwartz, *Pascals Gedanken, Fragmente und Briefe*, 2d ed., Leips., 1865. [Various translations of works of Pascal have been made into English. An account of these, as well as further literary references on the works of Pascal, will be found in the following publications: *The Provincial Letters of Blaise Pascal. A new Translation; with Historical Introduction and Notes, by Rev. Thomas McCrie. Preceded by a Life of Pascal* (reprint of an article in the second number of the North British Review, entitled *Pascal's Life, Writings, and Discoveries*), *a Critical Essay* (translated from Villemain), *and a Bibliographical Notice. Edited by O. W. Wight, A.M.*, New York, 1860; *The Thoughts, Letters, and Opuscules of Bl. Pascal, translated from the French* [with the exception of the *Letters*, translated by Mary L. Booth] *by O. W. Wight, A.M.*; with *Introductory Notices, and Notes from all the Commentators*, New York, 1861.—*Tr.*]

[*Malebranche, an Exam. of his Opinion of God*, by John Locke, in his *Philos. Works*, ed. by St. John, Vol. II., Lond., 1854, pp. 414–458. Blampignon on *M.*, Paris, 1861; also, *Annales de Phil. Chrét.*, 1859; *Monthly Rel. Mag.*, Boston, 1856.—*Tr.*]

To the second note on p. 50 Prof. Ueberweg adds, in the third edition, the following: —"The proof of God's existence can be found in the idea of God, as such, only when this idea in us is identified with his existence; for that the *idea* of God, when thought by us, *is* thereby in us or has existence, is of course undeniable and obvious enough; but Descartes does not so identify idea and being; he understands by God, the creator of the world, the object (*ens*) which we think in our idea of God, but not this idea itself."

To § 115 :—

The most complete and exact account of the various editions of Spinoza's works and of works on Spinoza is given by Ant. van der Linde, in *Benedictus Spinoza, Bibliografie*, s'Gravenhage, 1871. Spinoza's *Sämmtliche Werke*, transl. by v. Kirchmann and Schaarschmidt, Berlin, 1872; Paul Janet, *Spinoza et le Spinozisme d'après les travaux récens*, in the *Revue des deux mondes*, Paris, 1867. Among the early opponents of Spinoza's doctrine may be mentioned Rappolt, of Jena (*Oratio contra naturalistas*), von Blyenburg (*De verit. relig. christianæ*, Amst., 1674), and Musäus (*Tract. theol.-polit. ad veritatis lumen examinatus*, Jena, 1674). Lambert, the Cartesian, wrote, in opposition to the *Tract. theol.-pol.* and the *Ethics*, *De cultu naturali et origine moralitatis*, Rotterdam, 1680. Joh. Regius (*Cartesius verus Spinozismi architectus*, Leeuwarden, 1713), and V. C. Pappo (*Spinozismus detectus*, Weimar, 1721), combated, together with Spinozism, Cartesianism, as the source of the former.—Jos. Bayer, *Goethe's Verhältniss zu relig. Fragen*, Prague, 1869.—Victor Cousin, *Des rapports du cartésianisme et du spinozisme*, in *Fragments de philos. cartésienne*, Paris, 1852.—Sal. Rubin, *Spin. und Maimonides*, Vienna, 1868.—Wilhelm Liebrich, *Examen crit. du traité th.-pol. de Sp.*, Strasb., 1869.—Is. Misses, *Sp. u. d. Kabbala*, in the *Zeitschr. f. ex. Philos.*, VIII., 1869, pp. 359–367. (According to Misses, the point of departure and of support for Spinoza's doctrine was found by him in the cabalistic denomination of God as the Infinite, *En-Soph*, a denomination unknown to Maimonides and other Jewish philosophers, and leading directly to pantheism; God is considered by cabalists, as by Spinoza, as the immanent cause and essence of all things, and the relation of the universe to God is compared to the relation of the folds of a garment to the garment itself, and is hence conceived in a manner analogous to that in which Spinoza conceives the modes or affections [accidents] of God as related to God; the doctrine of the universal animation of things, even of stones, had been already enunciated by cabalists, as also the doctrine of a partial immortality of the soul; Spinoza's doctrine of the attributes, while indeed conflicting with the cabalistic denial of extension in God, finds nevertheless a point of connection in the cabalistic doctrine of the infinite light, which issues from the Infinite through the effect of a first concentration, which contains the germ of that variety that is not contained in the One as such, and to which alone the name Jehovah, the ever-working, is appropriate; the denial of the freedom of the human will is a systematic, logically correct consequence, which was only not expressed in the Cabala; Misses points out the Neo-Platonic and Gnostic sources of the Cabala in *Zofnat Paaneach, Darst. und krit. Beleuchtung der jüd. Geheimlehre*, Cracow, 1862–63. Numerous Neo-Platonic ideas were reproduced not only by Ibn Gebirol, but also by Ibn Esra, the biblical critic, who was highly esteemed as such by Spinoza. Still, these resemblances have probably only to an extremely slight extent any genetic significance. There is scarcely room to doubt that the *source* of Spinoza's identification of extended and thinking substance is to be sought in Spinoza's opposition to the dualistic psychology of Descartes.)

Mor. Brasch, *B. v. Sp.'s System der Philos. nach der Ethik u. den übrigen Tractaten desselben in genet. Entw. dargest. mit e. Biogr. Sp.'s*, Berlin, 1870; E. Albert Fraysse, *D'Idée de Dieu dans Spinoza*, Paris, 1870; M. Joël, *Sp.'s theol.-pol. Tractat auf seine Quellen geprüft*, Breslau, 1870; Ed. Böhmer, *Spinozana*, IV.–VI., in the *Zeitschrift für Philos.*, new series, Vol. 57, 1870, pp. 240–277; B. Bratuschek, *Worin bestehen die unzähligen Attribute der Substanz bei Sp.?* in *Philos. Monatsh.*, VII., 193–214; M. Joël, *Zur Genesis der Lehre Sp. mit besonderer Berücksichtigung d. kurzen Tractats*, "*von Gott, dem Menschen und dessen Glückseligkeit*," Breslau, 1871; Heinr. Kratz, *Sp. Ansicht üb. d. Zweckbegriff dargestellt u. beurtheilt*, Neuwied, 1871; R. Walter, *Ueber d. Verhältniss der Substanz zu ihren Attributen in d. Lehre Sp. m. besond. Berücksichtigung d. Auffassung derselben bei K. Fischer, Erdmann und Trendelenburg* (Erlangen Inaug. Dissert.), Nuremberg, 1871; S. E. Löwenhardt, *B. v. Sp. in s. Verhältniss z. Philos. u. Naturforschung d. neueren Zeit*, Berlin, 1872 (71). [Matthew Arnold, *Spinoza*, in *Essays and Criticisms*, pp. 237–252 (Am. edit., Boston, 1869; cf. above, p. 57). Articles on Spinoza in *Westm. Review*, Vol. 69, 1855, *Journal of Psycholog. Medicine*, III., New York, 1869, pp. 1–32 (by D. P. Ramseur, M.D., on *B. de Spinoza, a Biogr. Study*), *Christian Examiner*, Vol. 74, N. Y., 1863, pp. 313–337. Joh. Volkelt, *Pantheismus und Individualismus im Syst. Spinoza's*, Leipz., 1872.—*Tr.*]

To the note beginning near the bottom of page 66, Ueberweg adds that it does not appear, upon the principles of Spinoza, why attributes are not, as well as modes, in substance.

To the first note on p. 67 the following is added: "The application to God, as to substance, of the term 'being' (*ens*) is a misleading use of language, which suggests the idea of concrete existence, an idea repugnant to the Spinozistic definition of substance. Either God as a personal being, such as the religious consciousness represents him, exists, or he does not exist; but in no case should the term 'God' be applied to anything but a personal being, and least of all to anything so utterly heterogeneous to personality as 'substance;' it would be much more natural and permissible, if the meaning of the word were to be changed at all, to apply it pantheistically to something ideal, such as truth, freedom, moral perfection. If there exists a personal being as the creator of the world, with absolute power, wisdom, and goodness, then the doctrine of theism is justified. But if no such being exist, it is a duty of honesty either to avow the doctrine of atheism, to admit the idea of God only as a poetic invention, and to substitute for it in science some such notion as that of the eternal order of the world, or else not to treat of theological questions except historically. The Spinozistic use and abuse of religious terms is misleading and odious, although it may be explained and excused, partly in view of the intolerance of Spinoza's times, which treated atheism as a 'crime' and protected dogmas by penal laws, and partly and chiefly in view of the power which custom and association exerted over Spinoza himself. What confusions of thought and sentiment arise from such misapplication of words is shown by the history of German Spinozism after the pitiful strife about Fichte's atheism (*e. g.*, in the interpretation of the doctrine of the Trinity in accordance with the Hegelian dialectic, accompanied by the singular assertion, that the momenta of this dialectic were substantially identical with the three divine persons, and only formally different from them)."

The note on page 71 is enlarged by the following paragraph: "Herder says, in a letter printed in Düntzer and Herder's *Aus Herder's Nachlasse* (II., 251–256), that it is the πρῶτον ψεῦδος of the opponents of Spinoza, that they regard his God, the great *ens entium*, which is eternally operative in all phenomena and is the cause of their essence, as an abstract conception, such as we form for ourselves; that, urges Herder, is not Spinoza's view of God, whom he conceives rather as the most real and most active of all beings, the Ens, who says to himself: I am that I am, and in all the changes of my manifestation shall be that I shall be. Undoubtedly the idea of substance is, according to the *intention* of Spinoza, not merely a subjective abstraction; but this is what it nevertheless really is; by hypostatizing this abstraction Spinoza does not arrive really at the knowledge of a real divine being (any more than the Neo-Platonists, by their hypostatizing of abstractions, arrived at the knowledge of really existing gods). The being which is in all concrete existence, the thought which is in all thoughts, the extension which is in all bodies, do not constitute an *Ens*, which can speak to itself, be conscious of its immutability, and become the object of reverence and of intellectual love."

To § 116 :—

Geo. v. Benoit, *Darstellung der Lockeschen Erkenntnisslehre, verglichen mit der Leibnitz'schen Kritik derselben* (Prize Essay), Berne, 1869; Friedr. Herbst, *Locke und Kant*, Stettin, 1869; Max. Kissel, *De ratione quæ Locki inter et Kanti placita intercedat*, Rostock, 1869; T. Ziemba, *Locke u. s. Werke nach den für die Philos. interessantesten Momenten* (Dissert.), Lemberg, 1870. [Francis Bowen, *Locke and the Transcendentalists*, in B.'s *Critical Essays*, Boston, 1842, pp. 1–32; R. Vaughan, *Locke and his Critics*, in V.'s *Essays in Hist., Philos., and Theol.*, Vol. II., Lond., 1849, pp. 59–120; D. Stewart, on *Locke's Account of the*

Sources of Human Knowledge, in Stewart's *Works*, V., Edinb., 1855, pp. 120–137, and on *L.'s Influence on the Syst. of Philos. prevailing in France in the 18th century*, *ib.*, pp. 120–137. Articles on Locke in *North Am. Rev.*, 29, 1829, pp. 67–123 (*Hist. of Intellect. Philos.*), *Ed. Rev.*, 50, 1829, pp. 1–31, *N. Br. Rev.*, 12, 1849 (on Locke and Sydenham), *Ed. Rev.*, 99, 1854 (*L.'s Character and Philos.*), *Am. Journal of Education*, 6, 1859, pp. 209–222 (translated from the German of Karl von Raumer), *Sat. Rev.*, 23, 1867, pp. 73–75 (*Locke as a Moralist*). Sir James Mackintosh, *On the Philos. Genius of Lord Bacon and Mr. Locke*, in M.'s *Miscellaneous Works.—Tr.*]

On Berkeley's doctrine compare articles in various periodicals, by T. Collyns Simon, in particular *Berkeley's Doctrine on the Nature of Matter*, in the *Journal of Specul. Philos.*, III., 4, St. Louis, 1869, pp. 336–344; *Is Thought the Thinker?* *ibid.*, pp. 375–376; Ueberweg, *Sendschreiben an Simon*, in the *Zeitschr. f. Philos.*, 1869; Simon's answer to the preceding, *ibid.*, 1870; U.'s brief rejoinder, *ibid.*, 1871; R. Hoppe and H. Ulrici on the same subject, *ibid.*, 1871; F. Frederichs, *Ueber B.'s Idealismus* (Progr.), Berlin, 1870, and *Der phänomenale Idealismus B.'s u. Kants* (Progr.), *ibid.*, 1871; Charles R. Teape, *Berkeleian Philosophy* (Dissert.), Göttingen, 1871. [T. H. Green, *The Works of George Berkeley, D.D.* (Fraser's edit.), in *The Academy*, Vol. III., No. 40, 1872, pp. 27, 28; C. S. P(ierce), on the same, in *North Am. Rev.*, 1871.—F. Bowen, *Berkeley and his Philos.*, in *Crit. Essays*, Boston, 1842, pp. 264–309; D. Stewart, *On the Idealism of B.* in S.'s *Works*, V., Edinb., 1855, pp. 87–113; Dr. McCosh, in *Presb. Qu.* Jan. 1873.—*Tr.*]

On Newton: E. F. Apelt, *Die Epochen der Gesch. der Menschheit*, Jena, 1845; J. Durdik, *Leibnitz u. Newton*, Halle, 1869; C. Neumann, *Ueber die Principien der Galilei-Newton'schen Theorie*, Leips., 1870.

On Shaftesbury: Chr. A. Thilo, *Die englischen Moralisten*, in the *Zeitschr. f. exacte Philos.*, Vol. 9, No. 3, 1871. [G. Spicker, *Die Philos. des Shaftesbury, nebst Kritik über das Verhältniss der Religion zur Philos. u. d. Philos. zur Wissenschaft*, Freiburg in B., 1872; Dr. McCosh in *Br. and For. Ev. Rev.*, 1864.—*Tr.*]

R. Zimmermann, *S. Clarke's Leben und Lehre*, Vienna, 1870 (from the memoirs of the Imperial Acad. of Sciences, phil.-hist. class, Vol. 19, pp. 249–336); cf. further, on Clarke and on A. Smith, Thilo, in the article cited above.

Ueberweg, in the third edition, alludes to Locke's doctrine of heat as a mode of motion. To the note on "secondary qualities" (above, pp. 85 and 86) he adds: "The expression can be interpreted in a sense which would involve nothing erroneous; namely, by regarding it as a shorter expression for 'attributes in a secondary sense,' and by using the expression 'attributes in the primary sense' to denote what belongs to things in themselves, and the expression 'attributes in the secondary sense' (however unnaturally) to denote what is excited in us by things. The distinction runs back to Aristotle (*De Anima*, III., 1); but Aristotle does not teach that the qualities, which Locke terms secondary, are merely subjective; Locke's predecessors in this distinction were Democritus and Descartes. The distinction must be maintained, as against the counter-arguments of Berkeley, Hume, and Kant."

To § 117:—

R. Zimmermann, *Leibnitz's Monadologie*, Vienna, 1847; Ludwig Grote, *Leibn. u. s. Zeit*, Hanover, 1869; C. H. Plath, *L.'s Missionsgedanken*, Berlin, 1869; Edmund Pfleiderer, *G. W. Leibn. als Patriot. Staatsmann und Bildungsträger*, Leipsic, 1870 (69); *Leibnitz als Verf. von zwölf anonymen meist deutsch-politischen Flugschriften nachgewiesen*, *ib.*, 1870; Ad. Brennecke, *L.'s Beweise für das Dasein Gottes*, in the *Philos. Monatsh.*, V., 1870, pp. 42–63. [Articles on Leibnitz in *Edinb. Review*, Vol. 84, 1846, *N. Brit. Rev.*, 5, 1846, *Am.* (Whig) *Review*, 9, N. York, 1849 (transl. from French of Maine de Biran; two articles), *Atlantic Monthly*, Vol. 2, 1858, *North Am. Review*, 108, 1869, pp. 1–36 (by A. E. Kroeger), *Revue des Deux Mondes*, Vol. 31, 1861, pp. 386–411 (by Ch. de Rémusat, *Leibn. et Bossuet*), Vol. 30, new series, 1866, pp. 961–996 (by Em. Saisset, *L. et Hégel d'après de nouv. doc.*), and Vol. 92, 1871, pp. 327–367 (Ch. Aubertin, *La philos. de L. et la science contemporaine*). A. C. Fraser, *The Life and Philos. of Leibnitz*, in F.'s *Essays in Philosophy*, Edinburgh, 1856, pp. 3–56.—*Tr.*]

F. W. Kluge, *Christian von Wolff, der Philosoph*, Breslau, 1831.

H. Weissenborn, *Lebensbeschreibung des E. W. von Tschirnhaus*, Eisenach, 1866.

On Moses Mendelssohn cf. Arnold Bodek, in his edition of M.'s *Phädon* and *Jerusalem*, in the *Bibl. der deutsch. Nat.-Litt. des 18. und 19. Jahrh.*, Leips., 1869, and also Adler, *Die Versöhnung von Gott, Religion und Menschenthum durch M. Mendelssohn*, Berl., 1871.

C. Hebler, *Lessing-Studien*, Berne, 1863; *Philos. Aufsätze*, Leips., 1869, p. 79 seq.; L. Crousle, *Lessing et le goût français en Allemagne*, Paris, 1863; Dietsch, *Ueber Lessing als Philolog*, in the Transactions of the 22d Reunion of Philologers, Leips., 1864; Kuno Fischer, *L.'s Nathan der Weise*, Stuttgard, 1864; D. F. Strauss, *L.'s Nathan der Weise*, Berlin, 1864. [F. Tiffany, *Lessing*, in the *Christ. Exam.*, 82, N. Y., 1867, pp. 161–186.—*Tr.*] Victor Cherbuliez, *Lessing*, in the *Revue des deux mondes*, Vol. 73, 1868, pp. 78–121 and 981–1024; Ed. Zeller, *Lessing als Theolog*, in von Sybel's *Hist. Zeitschrift*, XII., 1870, pp. 343–383. (Zeller shows the futility of the attempt "to prove that Lessing was an apologist for supernaturalism," and points out the common basis of Lessing's view of religion and of the view of contemporary "enlighteners," notwithstanding Lessing's decided criticism of the superficiality of the latter, and especially of their unhistorical, exclusively polemical judgment of orthodoxy; but he also demonstrates that Lessing, like Leibnitz, only agreed with Spinozism in certain aspects of doctrine, but was not a Spinozist. "He who sees in the whole history of humanity a divine, universal plan, he who regards all things as tending toward the end of the perfecting of beings, he who defends the right of individuality and of individual development as earnestly, and who doubts as little in regard to the immortality of the individual, as Lessing—he may have learned never so much from Spinoza, yet he cannot be termed a Spinozist.") Fontanes, *Etude sur Lessing*, Paris, 1872.

"The 'eternal truths' have, according to Leibnitz, their origin in the divine understanding, uninfluenced by the divine will. The divine mind is the source of the possibility of things, while the divine will is the cause of their reality. Thus all truth must by its nature be rational truth" (to p. 113).

To the paragraph on G. Battista Vico, Ueberweg adds: "Vico may be regarded as the founder of the philosophy of history and of the psychology of races or nations. His purpose, as he himself affirms, is to consider God not only in his relation to nature, but also in relation to the human spirit as manifested in the lives of nations. He combats Cartesianism as being hostile to the historical method. His philosophy of history, however, only distinguishes periods of development in the life of single nations, and does not rest on the idea of a gradual progress of the human race." [*Cinque orazioni inedite di Gian Battista Vico, publicate da un codice Ms. della bibliotheca nazionale per cura del bibliothecario Antonio Galasso. Con un discorso preliminare.* Naples, 1869. Cf. article by von Reichlin-Meldegg, in the *Heidelberger Jahrbücher*, Dec., 1871.—*Tr.*]

The following are the fundamental ideas of M. Mendelssohn's *Jerusalem:* "The state, which has the right to compel actions, cannot justly attempt to constrain its citizens to unanimity in thought and sentiment; it should, however, seek by wise provisions to produce those sentiments from which good actions spring; the religious communion, which desires the existence of certain sentiments or a certain character, should not as such, either directly or by the arm of civil power, seek to exercise constraint over its members; religious differences should not prejudice civil equality; the true ideal is not unity, but freedom of belief."

To the paragraph ending on p. 120 is added: "Joh. Heinrich Pestalozzi (1745–1827), the reformer of the system of popular schools, developed theoretically and practically, in a profound manner and noble spirit, the philanthropic purpose of giving to the methods of training and teaching a more natural form. His principle was: 'the organism of human nature is in its nature subject to the same laws which guide nature universally in the development of her organic products.' Pestalozzi founds all knowledge on perception, and demands that, by a progress as uninterrupted as possible, and with a constant incitement of the pupil to spontaneous activity, the learner be made to advance from what has been already acquired by him to higher results, these results being arrived at as consequences following from what was previously established. (Pestalozzi's works were published at Tübingen and Stuttgard, 1819–26, and ed. by L. W. Seyffarth, Brandenburg, 1869 seq.)"

To § 118:—

[G. Dunoiresterre, *Voltaire et la société française au XVIIIme siècle; Voltaire et Frédéric*, Paris, 1870. Morley's *Voltaire*, Lond., 1872.—*Tr.*]

K. Schneider, *Rousseau und Pestalozzi, der Idealismus auf deutschem und französ. Boden*, 2 lectures, Bromberg, 1866; Alb. Christensen, *Studien über J. J. Rousseau*, Flensburg, 1869; Ferd. Werry, *J. J. R.'s Einfluss auf die höh. Schulen Deutschlands* (Progr.), Mühlhausen on the Ruhr, 1869; Theod. Vogt, *R.'s Leben*, from the Reports of the Imp. Acad., Vienna, 1870; L. Moreau, *J. J. R. et le siècle philosophique*, Paris, 1870.

F. Réthoré, *Condillac ou l'empirisme et le rationalisme*, Paris, 1864; Ed. Johnson, on Condillac in connection with his transl. of the *Traité des sensations*, in the *Philos. Bibl.*, Berlin, 1870.

On Condorcet, cf. John Morley in the *Fortnightly Review*, XIII., 1870, pp. 16–40, 129–151.

To § 119 :—

New edition of Hume's philos. works, Lond., 1870. Lars Albert Sjöholm, *Det historisca sammanhanget mellan Hume's Skepticism och Kant's Kriticism*, Upsala, 1869; W. F. Schultze, *Hume und Kant über den Causalbegriff* (Inaug. Dissert.), Rostock, 1870. [*Leben und Philos. David Hume's dargestellt von Dr. Fr. Jödl* (Prize-Essay), Halle, 1872. Articles on Hume in *Blackwood's Mag.*, Vol. 46, 1839 (on *H.'s Argument against Miracles*), *New Englander*, I., New Haven, 1843 (on *H., Voltaire, and Rousseau*), *Chr. Examiner*, 57, 1854 (by Pres. J. Walker, on *Hume's Philos. Works*), *Revue des Deux Mondes*, VI., 1856, pp. 107–141 (Cucheval-Clavigny, *D. H., sa vie et ses écrits*), *Am. Presb. Rev.*, new series, I., 1869, pp. 544–568 (by Rev. John Hunt).—*Tr.*]

To the brief statement relative to Hume's doctrine in regard to the notion of substance (above, p. 134), Dr. Ueberweg adds in his third edition the following: "Hume says: We have no clear ideas of anything but perceptions; a substance is something quite different from perceptions; hence we have no knowledge of a substance. Inherence ('inhesion') in something is regarded as necessary for the subsistence of our perceptions, but in reality they need no substrate. The question whether perceptions inhere in a material or immaterial substance cannot be answered, because it has no intelligible sense."

To § 120 :—

Substantial contributions to the history of philosophy since Kant, and especially to the appreciation of Schelling, Schleiermacher, etc., are made by R. Haym, *Die romantische Schule*, Berlin, 1870. Cf. also the works cited above, § 108.

To § 121 :—

Cf. further on Kant's life, articles in the *N. Berl. Monatsschrift*, Feb. and May, 1805. [*The Last Days of Kant*, in *Blackwood's Magazine*, Vol. 21, 1827, p. 133 seq.; De Quincey, in his *Biograph. Essays*; article and literature in *New Am. Cyclopædia*; A. E. Kroeger, *Kant*, in the *New Englander*, New Haven, April, 1872.—*Tr.*] The principal works of Kant, reprinted from Hartenstein's second edition and accompanied with explanatory and critical remarks by J. H. von Kirchmann, have been published in the *Philos. Bibliothek*, Berlin: L. Heimann, 1868 seq. [Cf. C. Grapengiesser, *Erklärung und Vertheidigung von K.'s Kr. d. r. V. wider die sogenannten Erklärungen des Herrn J. H. von Kirchmann. Eine Bekämpfung des modernen Realismus in der Philosophie.* Jena, 1871.—*Tr.*] On Kant and Swedenborg cf. further Paul Janet, *Kant et Swedenborg*, in the *Journal des Savants*, May, 1870, pp. 299–313. [An English translation of Kant's Prolegomena to any future Metaphysic, with Critical Notes and Appendices, is contained in Vol. III. of *Kant's Critical Philosophy for English Readers*, by J. P. Mahaffy, A.M., London: Longmans, 1872.—*Tr.*]

To § 122 :—

Cousin's Lectures on Kant's Philosophy, translated from the French, with a Sketch of Kant's Life and Writings, by A. G. Henderson, London, 1870. C. Fortlage treats of the Kantian philosophy in one of his six *Philos. Vorträge*, Jena, 1869.—Alfonso Testa, *Della Critica della ragion pura di Kant*, Lugano, 1841; B. Spaventa, *La filosofia di Kant*, Turin, 1860.—Thomas Davies, *On the Chief Princ. in Kant's Kritik d. r. Vern.* (Inaug. Dissert.), Göttingen, 1863.—Vinc. Lilla, *Kant e Rosmini*, Turin, 1869. Klingberg, *Kant's Kritik af Leibnizianismen (Akad. Afhandl.)*, Upsala, 1869; Sjöholm, *Det historiska sammanhanget mellan Hume's Skepticism och Kant's Kriticism (Ak.. Afh)*, Upsala, 1869.

G. S. A. Mellin, *Encycl. Wörterbuch der Kantischen Philosophie*, Züllichau and Leips., 1797 seq. A. Petrasi, *De Kantii categoriis*, Heidelberg, 1845. L. Noack, *I. Kant's Auferstehung aus dem Grabe, seine Lehre urkundlich dargestellt*, Leipsic, 1861, and *Kant mit oder ohne romantischen Zopf?* in Vol. 2 of Oppenheim's *Deutsche Jahrb. für Pol. u. Litt.*, 1862. Michelis, *Kant vor und nach dem Jahre* 1770, Braunsberg, 1871 (70). Jos. Jackel, *De K. phænomeno et noumeno* (Dissert.), Breslau, 1862. Heinr. Bach, *Ueber die Beziehung der K.'schen Philos. zur franz. u. engl. des* 18. *Jahrh.* (Dissert.), Bonn, 1866. E. H. Theod. Stenhammar, in an "academical essay," treats of the question whether Kant alleged the right reason for the universality and necessity of knowledge, Upsala, 1866. [To the controversy between Trendelenburg and Kuno Fischer respecting Kant's doctrine of time and space, allusion has been made above in the account of Trendelenburg's doctrine, § 134. The following additional literary references, together with a paragraph on the subject of the dispute, appeared first in the third German edition of this work.—*Tr.*] Emil Arnoldt, *Kant's transcendentale Idealität des Raumes und der Zeit, für Kant gegen Trendelenburg*, in the *Altpreuss. Monatsschrift*, VII., 3, 1870, and VIII., 1, 1871; Herm. Cohen, *Zur Controv. zwischen Tr. u. F.*, in the *Zeitschr. f. Völkerpsych. u. Sprachw.*, VII., pp., 249–296. Compare various reviews in the *Philos. Monatsh.* Trendelenburg denies that Kant has proven that the "*a priori*," the origin of which is purely subjective, is also purely subjective with regard to its validity, *i.e.*, that it is only applicable to phenomena, and not to things-in-themselves or transcendental objects; in addition to the possibilities implied in the expressions "merely objective" and "merely subjective," says T., there exists a "third possibility," viz., "at once subjective and objective" (objective in the sense of transcendental), and Kant's omission to consider carefully this "third possibility" constitutes a "gap" in his argumentation, which is fatal to the demonstrative force of the latter. Trendelenburg's own doctrine is, that space and time are products of the "motion" which takes place within and without us, and that they are equally subjective and objective (cf. above, § 134). Kuno Fischer seeks to demonstrate, that Kant has furnished a direct proof of the non-relation of space and time to things-in-themselves and (in the section on Antinomies) an indirect one also. But the statement of the question needs to be changed, when it would appear that the conception "*a priori*," as understood by Kant, is untenable. By means of philosophical inferences from the laws of physics, and in particular from the law of gravitation, the ascription, to our conception of space, of objective transcendental validity may be justified; see my essay on Kant's Criticism (cited above, p. 159).

R. C. H. Vogt, *Kant's Lehre über Affect und Leidenschaft* (Dissert.), Rostock, 1868. H. Cohen, *Kant's Theorie der Erfahrung*, Berlin, 1871. [C. S. Baruch, *Kant als Anthropolog*, an address delivered at the annual meeting of the Anthropolog. Soc., Vienna, 1872.—*Tr.*]

Aug. Müller, *Die Grundlagen der K.'schen Philos. vom naturwiss. Standpunkt gesehen*, in the *Altpreuss. Monatsschr.*, VI., 1869, pp. 358–421; C. Hebler, *Kantiana*, in his *Philos. Aufsätze*, Leips., 1869; Hodgson, *Time and Space* (an analysis of Kant's doctrine), London, 1869; G. Biedermann, *K.'s Kr. d. r. V. u. d. Hegel'sche Logik in ihrer Bed. f. d. Begriffswiss.*, Prague, 1869; Ernst Wickenhagen, *Die Logik bei Kant* (Dissert.), Jena, 1869; O. Stäckel, *Der Begriff der Idee bei Kant im Verh. zu den Ideen bei Plato* (Dissert.), Rostock, 1869; Oscar Hohenberg, *Ueber das Verhältniss der K.'schen Ph. zur plat. Ideenlehre* (Rostock Dissert.), Jena, 1869; A. T. R. Braune, *Der einheitl. Grundged. der drei Kritiken Kants* (Inaug. Dissert.), Rostock, 1869; Friedr. Herbst, *Locke und Kant* (*Rostocker Promotionsschrift*), Stettin, 1869; Maxim. Kissel, *De rat. quæ inter Lockii et Kantii placita intercedat*, Rostock, 1869.

Rich. Quäbicker, *Krit.-philos. Untersuchungen* (I.: Kant's and Herbart's metaphysical views of the nature of the soul), Berlin, 1870; Rud. Hippenmeyer, *Ueber Kants Krit. der rat. Psychol.*, in the *Zeitschr. f. Ph.*, new series, Vol. 56, 1870, pp. 86–127; H. Wolff, *Die metaph. Grundansch. Kants, ihr Verh. zu den Naturwiss. und ihre philos. Gegner*, Leips., 1870; F. R. E. Zelle, *De discr. inter Aristotel. et K. logices notionem intercedente* (Dissert.), Halle, 1870 (also in German, Berlin, 1870); W. F. Schultze, *Hume u. Kant über den Causalbegriff* (Inaug. Diss.), Rostock, 1870; Rud. Tombo, *Ueber K.'s Erkenntnisslehre* (Inaug. Diss.), Rostock, 1870.

E. v. Hartmann, *Das Ding an sich und seine Beschaffenheit, Kantische Studien zur Erkenntnisstheorie und Metaphysik*, Berlin, 1871. (Hartmann demands a further advance in the direction adopted by Kant himself of a more thorough critique and limitation of the assertions of the "Transcendental Analytic," instead of the opposite way, chosen by Kant's first disciples, which leads ultimately to "absolute illusionism." [Cf. E. Fleischl, *Eine Lücke in Kant's Philos. u. Eduard von Hartmann*, Vienna, 1872.—*Tr.*] Edmund Montgomery, *Die Kantische Erkenntnissl. widerlegt vom Standpunkt der Empirie*, Munich, 1871; R. Zimmermann, *Ueber Kant's mathematisches Vorurtheil und dessen Folgen*, Vienna, 1871; F. Lengfehlner, *Das Princip der Philosophie, der Wendepunkt in Kant's Dogmatism. u. Kriticism.* (Progr.), Landshut, 1870; F. Fredericks, *Der phänomenale Idealismus Berkeley's und Kant's*, Berlin, 1871.

On Kant's physical philosophy cf., in addition to the works cited near the end of § 122, Renschle, *Kant und die Naturwissenschaft*, in the *Deutsche Vierteljahrsschr.*, 1868, pp. 50–102, and especially on Kant's dynamic theory of matter, *ibid.*, pp. 57–62. [Further Engl. references on Kant: Thos. Wirgman, *The Principles of the K. Philos.* (Engl. and Germ.), Lond., 1838; Francis Bowen, *Kant and his Philos.*, in B.'s

Critical Essays, Boston, 1842, pp. 33–65; articles in *Edinb. Rev.*, I., 1803, pp. 253–280, *For. Qu. Rev.*, 24, 1839, pp. 49–58 (Am. Ed.), *North Am. Rev.*, 49, 1839, 44–68, *New Englander*, XV., New Haven, 1857, 61–101 (*The K. Philos.*); S. S. Laurie, *Interpret. of Kant's Kritik*, in *Journ. of Sp. Philos.*, VI., 1872, pp. 222–233; art. Kant, in Appleton's *New Am. Cyclop.*—*Tr.*]

To the first note ending on p. 162 above, Ueberweg adds the following: "It is true that there are subjective, psychical conditions on which experience depends and which precede experience (a corpse has no experience), but this is at least as true in the case of the perception of the vibrations of the air as sounds or of ethereal vibrations as colors, etc., as in the case of the intuition of space (and even more so, in so far as it is demonstrable that sounds, colors, etc., are purely subjective). To ascribe the certainty which exists in the sum of our mathematical operations (perception, abstraction, construction by the means of ultimate abstractions [the point, etc.], hypothetical idealization through the assumption of the absolutely exact truth of axioms, deduction of principles, and comparison of that which is deduced with the reality), to the '*a priori*' origin of our notion (intuition) of space (which accounts for nothing, since non-demonstrative assertions, relative to subjective conditions of knowledge and derived from self-observation, can only have an assertory character), this is to indulge in a kind of mythological play, which in some sense opens the door for the mystical element in Kant's conception of freedom."

To the second paragraph on space on p. 165, above, Ueberweg adds the following: "Space, says Kant, represents no attribute of any things-in-themselves, nor does it represent such things in their relation to each other, *i. e.*, it represents no qualification belonging to things themselves and which would remain, after abstracting from all the conditions of perception; for neither absolute nor relative qualifications can be perceived before the existence of the things to which they belong, and hence they cannot be perceived *a priori*."—"But this," adds Ueberweg in a note, "even admitting the *a priori* character of space, would at most only prove that we are not justified, on the ground of our '*a priori*' intuition, in ascribing to things-in-themselves the qualification of space; that which, in sensible intuition, we perceive as a 'qualification' of things (so perceive, that on the basis of this perception we are justified in ascribing it to things themselves), we do indeed perceive at the same time with these things and in the same way, namely through the affection of the senses, and not before the things nor independently of them, hence *a posteriori* and not *a priori*. But our *not being justified* in ascribing spatiality to things-in-themselves, our *inability to say* that this qualification belongs to them, as an absolute or relative 'qualification,' is incorrectly assumed by Kant as the equivalent of the *right to deny*—or of the right to assert that spatiality is not a qualification or attribute of things-in-themselves. But the whole Kantian doctrine of the *a priori* is unsound. Space is innate, not as a mere form of intuition in a non-spatial being, but as a form of existence."

Addition to note on p. 170: "The proof [of the objective nature of space, time, and categories] rests on the possibility of deducing the law of gravitation from the three dimensions of space. Phenomena could be subject to a law implying the three dimensions of space, and yet be purely subjective, *i. e.* resulting merely from a causality immanent in the perceiving subject—which, however, according to Kant's doctrine of things-in-themselves as affecting us, they are not; but they could not be subject to such a law, if things-in-themselves, really existing, were not in space of three dimensions, in time, subject to the law of causality, etc.; hence no alternative is left but to assume that these things have an order homogeneous with that which characterizes the space of intuition."

Note to p. 171, on the "Schemata:" "No special 'schematism' seems to be needed, for the very shaping of the material given in sensation, by the two forms of intuition (space and time), prepares it for its further elaboration by the categories. But if such a schematism is needed, it would appear that space as well as time, and for the same reasons, can and must furnish one."

To § 123:—

C. Wassmansdorf, *Der Philosoph Kant über Leibesübungen*, in Kloss' *N. Jahrb. f. d. Turnkunst*, 1864, x., 4. Karl Kalich, *Cantii, Schellingii, Fichtii de filio divino sententiam expos. nec non dijudicavit*, Leips., 1870. A. Mastier, *Quid de recti pravique discrimine senserit K.*, (Thesis Parisiensis,) 1862. Alex. von Oettingen, *Ueber Kant's Pflichtbegriff* (address), Dorpat, 1864; Otto, *Verh. der philos. Religionslehre Kant's zu den Lehren der Kritik der reinen Vft.*, (Progr.,) Nordhausen, 1870; J. Rowland, *An Essay intended to interpret and develop unsolved Ethical Questions in Kant's "Groundwork of the Metaphysics of Ethics,"* London, 1871. [E. Vacherot, *La morale de Kant, in Rev. de Paris*, 36, 1857, pp. 546–571; W. Bender, *Ueber K.'s Religionsbegriff*, in the *Ztschr. f. Philos.*, vol. 61, Halle, 1872, pp. 39–70.—*Tr.*]

In a note on Kant's "postulates," Ueberweg adds: "The Postulate of Freedom claims for the ego as a thing-in-itself an influence in the world of phenomena, which can only be a causal influence. But if the ego as a *noumenon* can produce effects, it is impossible to perceive why it should not be able to be acted upon, not only by phenomena, but by other *noumena*. The consciousness of moral responsibility presupposes freedom, in the sense of supremacy of the internal over the external, and especially in the sense that praxis may be determined and regulated by the knowledge of distinctions and relations of worth; but it does not imply freedom in the sense of absence of causation. The Postulate of Immortality implies that the conception of individual unity is applicable to *noumena*, which yet are supposed to transcend time, space, and the categories of causality and substantiality; and yet, according to the *Crit. of Pure Reason*, the categories of unity, plurality, and totality, as well as the other forms of thought and the forms of intuition, are only forms of phenomena. These contradictions would be removed by the plea that faith has only practical validity, if the plea were urged in good faith and the principle of it carried out by demanding only an ethically correct praxis, and not an intellectual conviction in addition. In the practical aspect of the case, we may oppose to Kant's argumentation the principle: *ultra posse nemo obligatur*. That which is absolutely impossible for any one cannot justly be demanded of any one. The argumentation for the postulate of God's existence is the result of Kant's rigid conception of the moral law."

At the end of § 123 the following paragraph is added:—

"The Kantian moral philosophy is characterized, in its distinction from mediæval morals, by such requirements as the following (which are founded by Kant on the duty of man to esteem himself as a rational being, conscious of the sublimity of his moral nature, notwithstanding the consciousness and feeling of the insignificance of his moral worth, when viewed in comparison with the moral law): Let not others trample on your rights, without resenting it; incur no debts, without furnishing full security for their payment; accept no favors which you can dispense with, and be not a parasite or flatterer, or—what is the same thing, except with a difference in degree—a beggar; be frugal, in order that you may not be reduced to beggary; fawning is unworthy of a man; he who makes a worm of himself cannot complain afterwards if he be trampled on. The duty of respecting one's neighbor, says Kant, is involved in

the ethical maxim that no one should degrade another by making use of him as a mere means to his own ends, or that no one should demand that another throw himself away for the benefit of the former. The duty of loving one's neighbor is the duty of adopting as one's own the aims of others, in as far as these aims are not immoral. This duty, expressed as a maxim, must be conceived as the maxim of benevolence, which has for its consequence the doing good to others. Love and respect as feelings cannot be morally commanded; for there can be no external obligation to have certain feelings. The omission of the mere duties of love is a fault (*peccatum*); but the omission of the duty, which springs from the obligation to respect every man as a man, is vice (*vitium*); for by the neglect of the former no man is injured; but by the omission of the latter, men are deprived of what the moral law permits them to claim. Ethical discipline ['gymnastic'] is not secured by monastic asceticism; it consists alone in such combating of natural propensities as enables us, in cases of danger to morality, to become masters over them, and which therefore renders us morally valiant and joyful in the consciousness of recovered freedom."

To § 124:—

The following note is added, in the 3d edition of the original, on Kant's definition of our satisfaction in the beautiful as being qualitatively disinterested (above, p. 189): "In this definition, which characterizes the beautiful by its effect upon the percipient subject, Kant introduces a characteristic of this effect, to which Mendelssohn had already called attention. Mendelssohn says in his *Morgenstunden* (Works, II., p. 294 seq., cited by Kannegiesser, *Die Stellung M.'s in der Æsthetik*, p. 114): 'It is usual to distinguish in the soul the cognitive faculty from the faculty of desire and to include the feelings of pleasure and displeasure under the latter. It seems to me, however, that between knowing and desiring lies approving, the satisfaction of the soul, which is strictly speaking far removed from desire. We contemplate the beautiful in nature and in art, without the least motion of desire, with pleasure and satisfaction. It appears the rather to be a particular mark of the beautiful, that it is contemplated with quiet satisfaction, that it pleases, even though it be not in our possession, and even though we be never so far removed from the desire to put it to our use. It is not until we regard the beautiful in relation to ourselves and look upon the possession of it as a good, that the desire to have, to take to ourselves, to possess, awakes in us—a desire which is very widely distinguished from enjoyment in the beautiful.' Mendelssohn finds in the 'faculty of approval' the connecting link between cognition and desire. But Kant's conception of disinterestedness extends far beyond the idea of merely not desiring to possess."

On Kant's distinction between the agreeable and the beautiful (p. 190) the following note is added: "The rigid separation of mere charm, or of the agreeable, as that which pleases in the sensation, from the beautiful (e. g. of color from drawing, in painting) is impracticable in art. With the same right with which Kant declares color in a picture to be an unessential addition, which only awakens and intensifies by its sensuous attractiveness our attention, could he say the same of metre, rhythm, and rhyme in poetry, and yet he himself, with correct perception of the truth, denies the existence of poetry without rhyme and metre. As in theoretical and practical philosophy, so in the province of æsthetics, Kant does not recognize an ascending gradation from the sensuous to the intellectual, but separates them dualistically from each other. But Kant correctly distinguishes, on the other hand, between the 'disinterested satisfaction,' which results from mere perception, and practical interest [desire]; the former

is connected with the image of the object alone, and has no relation to the relations of the object itself to our individual life. But disinterested satisfaction has an objective basis, which Kant, consistently with his narrow subjectivism, vainly seeks to do away with. This basis is found in the essence of the perceived object, and the æsthetically satisfying form is not anything independent, but only the adequate mode of the phenomenal expression of this essence (what Kant incorrectly terms 'independent beauty')

To § 125:—

Herder's *Ideen zur Philos. der Gesch. der Menschheit*, edited, with introduction and annotations, by Julian Schmidt, in the *Bibliothek der deutschen Nationallit. des* 18. *Jahr.*, Vols. 23–25, Leipsic, 1869. Cf., among others, Adolf Kohut, *Herder und die Humanitätsbestrebungen der Neuzeit*, Berlin, 1870. [De Quincey, *Herder*, in De Q.'s *Philos. Writers*, Vol. I. Articles in *N. A. Rev.*, Vol. 20, 1825, *For. Quarterly Rev.*, 37, 1846, *Am. Journal of Education*, VI., Hartford, 1859 (transl. from the German of Karl v. Raumer), and *N. Am. Rev.*, No. 236, July, 1872, pp. 104–138 (by Karl Hillebrand); *H. as Theologian*, *Theol. Rev.*, Lond., 1872.—Tr.]

[Auberlen, *Thos. Wizenmann*, etc., in *Jahrb. f. deutsche Theologie*, 1864, pp. 304–346.]

F. Ueberweg, *Ueber Schiller's Schicksalsidee*, in Gelzer's *Prot. Monatsbl.*, 1864, pp. 154–169. Franz Biese, *Rede über Schiller* (Progr.), Putbus, 1869. Albin Sommer, *Ueber die Beziehung der Ansichten Sch.'s vom Wesen und der geistigen Bedeutung der Kunst zur Kantischen Philos.* (Progr.), Halle, 1869.

Portions of Jacobi's correspondence are found in Vols. I. and III. of his Works and also in his *Auserlesener Briefwechsel* (with a sketch of his life in the Introduction), ed. by Friedr. von Roth, Leips., 1825–27; also in *Briefwechsel zwischen Goethe und Jacobi*, ed. by Max Jacobi, Leips., 1846, in the "Correspondence between Jacobi and Herder," published by H. Düntzer in *Herder's Nachlass*, Vol. II., pp. 248–322, and between Jacobi and Hamann, edited by C. H. Gildemeister, Gotha, 1868 (Vol. V. of *Hamann's Leben und Schriften*), and in *Aus Jacobi's Nachlass*, ed. by Rud. Zöpprits, Leips., 1869.

To § 126:—

[New edition of Fichte's *Selected Works*, translated by W. Smith, London: Trübner, 1871. Articles on Fichte in the *Christian Examiner*, July, 1866 (by C. D. B. Mills), and in the *National Quarterly Review*, New York, 1870.—Tr.]

The sentence, p. 209 above, near the middle of the page, beginning: "The corresponding logical principle," etc., is amplified by Ueberweg as follows: "A is in part = Non-A, and conversely; every opposite = its opposite in one mark (= ×), and every like term differs from its like in one mark (= ×); such a mark (×) is called the reason or ground, in the one case of relation, in the other of difference."

In regard to the "ironical" procedure of genius, mentioned in the last paragraph of § 126, p. 212, Ueberweg adds, in the third edition, that it "knows no positive satisfaction, and that the exaltation, by virtue of which it makes of that which was previously the goal of earnest endeavor an object of sport or play, is not the result of energetic, progressing labor of the intellect, but of the constantly renewed negation, which sinks all particularity in the abyss of the absolute."

To § 127:—

Vol. II. of *Aus Schelling's Leben, in Briefen*, covering the years 1803–1820, and Vol. III., 1821–1854, were published at Leipsic, 1870. [Cf. articles by A. Richter in *Ztschr. f. Philos.*, Vol. 60, 1872, pp. 239–263, and 61, 1872, pp. 105–124.—*Tr.*] On Schelling's philosophy, compare, further, F. Köppen, *Sch.'s Lehre oder das Ganze der Philosophie des absoluten Nichts, nebst drei Briefen von F. H. Jacobi*, Hamburg, 1803; also Jacobi's work, *Von den göttlichen Dingen*, Leips., 1811. [Works by Chr. Kapp and Alexis Schmidt on Schelling are cited in § 134, pp. 294, 296. *Schelling und die Theologie*, Berlin, 1846. Articles on Schelling by Dr. H. B. Smith in the *Southern Qu. Review*, Feb., 1857, and in the *New Am. Cyclopædia*; A. Planck, *Schelling's nachgelassene Werke und ihre Bedeutung für die Theologie*, in *Deutsche Zeitschr. für christl.*

Wissenschaft, VIII., March, 1857; also Erlangen, 1858; Dorner, *Sch.'s Potenzenlehre*, in the *Jahrb. f. deut. sche Theol.*, 1860. *Der Neu-Schellingianismus*, in *Der Gedanke*, Vol. II., 1862; Hamberger, *Sch.'s Philos. der Mythologie und der Offenbarung*, in the *Deutsche Vierteljahrsschr. f. engl.-deutsche Forschungen*, No. 2, 1862; Eggel, *Sch.'s Philos. der Offenbarung*, in *Theol. Studien u. Kritiken*, 1863, pp. 40–105. A. van der Linde translated into Dutch Schelling's "Philosophy of Revelation," Amsterdam, 1862. S. T. Coleridge, in his *Biograph. Literaria*, may be compared on Schelling. On Coleridge, *per contra*, as a student of German philosophy, J. H. Stirling has written, *De Quincey and Coleridge upon Kant*, in the *Fortnightly Review*, new series, II., 1867, pp. 377–397. It is obvious that Ueberweg's account of Schelling's later philosophy is quite meagre and scarcely satisfactory. It may be supplemented from among the works referred to above.]

To § 128:—

[On Steffens, further: Sack, *H. Steffens als christl. Religionsphilosoph*, in *Jahrb. f. deutsche Theol.*, 1871, pp. 623–639; cf. Hamberger, in Herzog's *Realencyclopädie*.—On Baader: Erdmann, in the *Zeitschr. f. Philos.*, 1856; Hamberger, *Schelling und Baader*, in *Jahrb. f. deutsche Theol.*, 1860; R. Rosenkranz, *The Difference of Baader from Hegel*, in the *Journal of Speculative Philos.*, St. Louis, Vol. 2, 1868.]

To the paragraph on Krause and his disciples Ueberweg adds: "F. Froebel, who has so greatly distinguished himself by the application of Pestalozzi's principles to the earliest education of children, and by developing the system of instruction by object-lessons into a system of instruction by imitative representation on the part of the learner, received impulses from Krause. Cf. Th. Schliephake, on Friedr. Froebel's method of education, in the *Philos. Monatsh.*, IV., 6, 1870, pp. 487–509. A pearl of Krauseanism is Krause's philosophy of law, which seeks a mean between 'formalistic separation' and 'materialistic confusion' of the ideas of legal right and welfare, by defining the former as such an arrangement of relations among men, as gives to every individual his appropriate sphere of independent (but not immoral) voluntary activity."

To § 129:—

Hegel's *Encyclopädie*, contained in Vol. VI. of his works, was published separately, without notes, by Rosenkranz, Berlin, 1845, and has been newly printed in the *Philos. Bibl.*, Vol. 30, Berlin, 1870, together with notes (Erläuterungen) by Rosenkranz [a separate opuscule], *ibid.*, 1870.

A. L. Kym, *Hegel's Dialektik in ihrer Anwendung auf die Gesch. der Philos.*, Zurich, 1849. Ed. von Hartmann, *Ueber eine nothw. Umbildung der H.'schen Philosophie*, in the *Philos. Monatshefte*, V., 5, Aug., 1870. G. Biedermann, *Kant's Krit. d. r. V. und die Hegel'sche Logik in ihrer Bedeutung für die Begriffswissenschaft*, Prague, 1869. Karl Köstlin, *Hegel in philos., polit. u. nat. Beziehung*, Tübingen, 1870. M. Schasler, *Hegel, populäre Gedanken aus s. Werken*, Berlin, 1870. Emil Feuerlein, *Ueber die culturgesch. Bed. Hegel's*, in the *Hist. Zeitschr.*, 1870, pp. 314–368. Fr. Harms, *Zur Erinnerung an Hegel*, in the *Philos. Monatsh.*, VII., 1871, pp. 145–161, also publ. separately. [Further translations from and articles upon Hegel in the *Journal of Specul. Philos.*, 1872. Other articles on Hegel may be read in the *Rev. des deux Mondes*, Vol. 91, 1871 (by E. Beaussire), Vol. 30, 1860 (by E. Saisset, *Leibnitz et Hégel*) and Vol. 31, 1861 (by B. Scherer), and in the *Christ. Exam.*, Vol. 80, 1866 (by C. C. Everett, on Stirling's *Secret of H.*).—*Tr.*]

The note on pp. 239, 240, above, is enlarged by the following addition: "The 'thing-in-itself,' in the Kantian sense of this expression, can indeed exist only in contradistinction from the thinking, individual subject, although it is not necessarily distinguished from the latter as something wholly foreign to it or absolutely unknowable, but only as something merely existing outside of consciousness; it is only independent of any particular cognitive act, while genetically it is a condition of knowledge, as, on the other hand, it may itself be regarded as teleologically conditioned by the knowing mind. If there is no 'thing-in-itself' in distinction from the 'Absolute,' yet there is such a thing in distinction from the perceiving and thinking, individual subject. Hegel aims to do away with the thing-in-itself in this latter aspect, because it is in individuals that the absolute spirit has its reality, our reason being God's reason in us, which can

only be conceived as identical with the reason in all things. But even though this might be true of the ultimate goal of knowledge, yet it is certainly not true of the way of knowledge, which we are obliged to follow—the way of a gradual approximation to the goal. Kant's doctrine perpetuates the original chasm between external things and any individual consciousness; Hegel's doctrine anticipates the final goal of knowledge for every one who resolves to think following the trichotomic rhythm of the Hegelian dialectic; it knows no more *problems*. Hegel's Phänomenologie by no means removes this defect; for although it sets out from perception, it does not explain scientifically the relation of perception to objective reality, the relation of vibrations of air and ether to sensations of color and sound; and indeed, by his adoption of Goethe's theory, Hegel rendered it impossible for him to undertake such an explanation. Hegel destroys for himself the possibility of entering upon investigations in the science of cognition by his false objectification of subjective forms, while in fact, even if the goal of human knowledge be conceived as reached, nothing more than an exact agreement—and not identity, in the complete sense of this word—can subsist between the 'system' (totality) of (material and spiritual) objects of knowledge and the system of science; in that case, it would only be true that the things-in-themselves were no longer unknown to us, but not that they were identical with our (individual, subjective) knowledge. The science of knowledge, which with Kant, under the form of a 'critique of the reason,' furnishes with respect to the 'transcendental objects' an absolutely negative result, is rendered impossible by Hegel through his axiom of the identity of thought and being. Between these extremes we must seek for the right mean."

To the paragraph on Nature the following additions are made (after "subjectivity," l. 10, p. 241): "Yet accident and external causation (in distinction from causation from within) have their places in the sphere of nature; the development of the particular is exposed to external and foreign influences; in this is seen an impotence of nature, which sets limits to philosophy; that which is most particular in nature cannot be ideally exhausted [expressed in adequate conceptions]." After "chronologically later," l. 19, p. 241:) "Nature, says Hegel, is to be viewed as a system of degrees, of which the one necessarily issues from the other and is the first truth of the one from which it results; not, however, in the sense that the one is naturally produced by the other, but in the sense that the one follows from the other in the inner idea which constitutes the ground or reason of nature. The so-called issuing of plants and animals from water, and of the more highly developed animal organizations from the lower (a theory adopted hypothetically by Kant and more confidently by numerous natural philosophers), is declared by Hegel to be a nebulous idea, which thinking men of speculation must renounce."

To § 130:—

Schleiermacher's *Monologe* are reproduced in Vol. VI. of the *Philos. Bibl.*, Berlin, 1868, and his *Philos. Sittenlehre*, with commentary and criticisms by J. H. v. Kirchmann, in Vol. XXIV., 1870.

Sigwart, *Ueber die Bedeutung der Erkenntnisslehre und der psychologischen Voraussetzungen Schleiermacher's für die Grundbegriffe seiner Glaubenslehre*, in the *Jahrb. f. deutsche Theologie*, ed. by Liebner, Dorner, and others, Vol. II., 1857, pp. 267–327 and 829–864 (cf. Dorner's reply, *ibid.*, p. 469). Wilh. Bender, *Zur philos. Gotteslehre Schleiermacher's*, in the *Zeitschr. f. Philos.*, Vols. 57 and 58 (new series), 1870–71. Gust. Baur, *Schl. als Prediger in d. Zeit von Deutschlands Erniedrigung und Erhebung*, Leipsic, 1871. R. Quäbicker, *Ueber Schleiermacher's erkenntnisstheoretische Grundansicht, ein Beitrag zur Krit. d. Identitätsphilos.*, Berlin, 1871. [Schleiermacher's *Essay on Luke*, translated by C. Thirlwall, Lond., 1825; *Introd. to Plato's Dialogues*, transl. by Dodson, Lond., 1827; *On Schelling and the Trinity*, transl. by Moses Stuart, *Bibl. Repos.*, V., VI.; *Outlines of Study of Theology*, transl. by Farrar, Edinb., 1850; *Schleiermacher and*

De Wette, by George Ripley, in *Letters to Andrew Norton*, etc., Boston, 1840; *Schleiermacher*, in *Nat. Rev.*, Lond., April, 1859; *Bretschneider on S.'s Theology*, transl. in *Bib. Sacra*, Andover, 1863, pp. 596–617; W. L. Gage, *S. as a Man*, in *New Englander*, New Haven, July, 1862; *Schleiermacher's Life and Letters*, transl. by Rowan, 2 vols., Lond., 1859; *G. Baur on S.*, transl. in *Presb. Qu. Rev.*, reprinted in *Brit. and For. Ev. Rev.*, London, 1862; D. Tissot, *Analyse de l'introd. à la Dogmatique de S.*, in *Bulletin Théol.*, Paris, 1863, two articles; R. Hollard, *Les Monologues de S.*, in *Rev. Chrétienne*, Paris, April, 1864; F. Bonifas, *La Doctrine de la Rédemption dans S.*, Paris, 1865; G. L. Plitt, *Das Verhältniss d. Theol. S.'s zu derjenigen Zinzendorf's*, in *Stud. u. Kritiken*, 1872; C. Lommatsch, *S.'s Lehre vom Wunder und vom Uebernatürlichen*, Berlin, 1872; S. Osgood, *The Schleiermacher Centennial and its Lesson*, in the *Christ. Exam.*, Vol. 86, 1869, pp. 171–191; *Passages from the Life of S.*, ib., 72, 1862, pp. 109–123; J. A. Reubelt, *S., his Theology and Influence*, in *Methodist Qu. Rev.*, 21, 1869, pp. 211–228; *Reminiscences of S.*, in *Hours at Home*, Vol. 8, p. 447 seq.] A. Immer, *S. als rel. Charakter*, Berne, 1859.

Addition to the account of Schleiermacher's Ethics, p. 253 above, l. 12 [S. says that]: "The moral law may be compared to the algebraic formula, which (in analytical geometry) determines the course of a curve; the highest good may be compared to the curve itself, and virtue, or moral power, to an instrument arranged for the purpose of constructing the curve according to the formula."

In the note at the end of the section, Ueberweg agrees with von Kirchmann in his criticism of Schleiermacher's terminology (see von K.'s Preface to his edition of S.'s *Sittenlehre*, in the *Philos. Bibl.*, Vol. 24, Berlin, 1870, p. XIV).

To § 131:—

Third edition of Schopenhauer, *Ueber das Sehen und die Farben*, ed. by J. Frauenstädt, Leips., 1869. —A. de Balche, *Renan et Arth. Schop.*, Odessa (Leips.), 1870. Alfr. von Wurzbach, *Arth. Schopenhauer*, in *Zeitgenossen*, No. 6, Vienna, 1871. Cf. further, Von Hartmann, *Schelling's pos. Ph. als Einh. von Hegel und Schopenhauer*, Berlin, 1869. Dav. Asher, *Arth. Schopenhauer, Neues von ihm und über ihn*, Berl., 1871. L. Chevalier, *Die Philos. A. Schopenh. in ihren Uebereinstimmungs- und Differenzpunkten mit d. Kant'schen Philos.* (Progr.), Prague, 1870. J. Frauenstädt, *Schopenh. Lexikon*, 2 vols., Leips., 1871. [H. Frommann, *A. Schop., drei Vorlesungen*, Jena, 1872; J. B. Meyer, *A. S. als Mensch u. Denker* (in the seventh series of the *Sammlung gemeinverständlicher wiss. Vorträge*, ed. by Virchow und von Holtzendorff, No. 145), Berl., 1872.—*Tr.*]

To the first note, bottom of p. 259, the following is added by Ueberweg: "The requirement that mathematical proofs be as far as possible genetic, has been enunciated by many authors (see my *System of Logic*, § 135), by Cartesians, by Herbart, by Trendelenburg; cf. also F. C. Fresenius, *Die psycholog. Grundlagen der Raumwissenschaft*, Wiesbaden, 1868. (Fresenius' conception of space-forms as *merely* psychological facts is very questionable.)"

The following addition is made to the last note on p. 260: "A thing becomes an object (Non-Ego) only in contra-position to a perceiving subject; without such a subject it cannot be an 'object' (Non-Ego), but it can be a thing. The thing can of course not be known without a knowing subject; but the subject, in its apprehension of the thing, may either ascribe to it what are simply subjective elements in our ideas, as though these elements were objective, or it may, by a process of abstraction aided by reflection on the process of cognition, separate from its conceptions what is only subjective and retain only those elements, of which—not indeed directly by comparison with the thing-in-itself (which is impossible), but indirectly, by scientific ratiocination—it may be demonstrated, that they are also objectively valid, *i. e.*, that they are similar to attributes of the things themselves. This kind of knowledge, which is not without a knowing subject, but which does not confound the subjective with the objective, is knowledge of things-in-themselves. Kant was not misled by the paralogism which blinded Schopenhauer."

Second note, p. 262, before "That we know," add: "That we know our own internal states (including our thinking [*cogitare*], in the broadest sense of the term) directly, just as it is, is Cartesian doctrine. After being disputed by Kant, who, however, ascribed to the practical reason a primacy over the speculative reason, it was taken up again by Schelling, who applied it, however, not to the case of our thinking, but only to that of our willing; Schelling recognized in will the source of self-consciousness and the primitive phase of being. In this renewal of the Cartesian doctrine Schopenhauer agreed with Schelling." Line 12 from below, p. 262, insert: "Schopenhauer can scarcely be accused of the glaring inconsequence ascribed to him by Otto Liebmann (notably, among others), namely, that, when he speaks of 'functions of the brain,' he had forgotten his own doctrine of idealism; a just criticism, which would not without necessity charge upon a thinker 'frightful confusion,' must admit, that when Schopenhauer employs the vulgar expression 'function of the brain,' he does so with reservation of the explanation, that, strictly speaking, we must understand by the function in question a function of the will which underlies the manifestations of the brain."

To § 132:—

Zur Biogr. H.'s u. Sanio, zur Erinnerung an H. als Lehrer d. Kgsbg. Universität, in *Herbartische Reliquien*, Leips., 1871, pp. 1–19. [N. Porter, on *Herbart's System*, in the *Am. Presb. and Theol. Rev.*, 1864, pp. 276–303 (in a review of Morell's *Intr. to Mental Philos.*, Lond., 1862, which is largely based on Herbart). C. L. Hendewerk, *H.'s Verhältniss zur Theologie*, in *Deutsche Zeitschrift*, 1861, p. 49 seq.; cf. *ibid*, 1860, July, and below, § 134. *Herbart's Psychologie*, in *Zeitschr. f. Philos.*, 1856, No. 1.]

Addition to first note, p. 273: "Hence, among other things, Herbart's erroneous assumption that the number of real beings cannot be infinite, because we, setting out from the finite, can never posit the infinite as a definite magnitude, but must think, whenever we arrive at any definite limit, that we can and must go on still farther. But being in itself has nothing to do with our positing. It is precisely that which is independent of our positing. Not being, but our thinking of being, is a positing, and that which (like the infinite) lies without the sphere of what we posit, is not for that reason by any means without the sphere of reality."

To the note, pp. 279–281, the following additions are made: [The treatment of the principle of identity and contradiction as an objective law of things, is an error] "from which Plato did not keep himself free, which even appears to a certain extent in some of Aristotle's statements—but which Aristotle, by more careful reflection upon the relation of the subjective to the objective, radically overcame—an error from which Kant preserved himself, but into which Herbart (and, in an opposite sense, Hegel) fell again".... "Every idea (says F. A. Lange, who, however, in this propounds no theory of his own, but claims simply to express the consequences of Herbart's fundamental idea) checks with its whole force the other, and each one resists this action with all its force. Hence that portion of the idea a, which is arrested (in a case of complete opposition), must be to the portion which remains in consciousness, as b to a, or its whole strength must be to that portion which remains, as $b+a$ to a. There remains, therefore, from a, $\frac{a^2}{a+b}$, and from b, $\frac{b^2}{a+b}$; the sum of arrest $= \frac{2ab}{a+b}$, i. e. = the harmonic mean between a and b, and is not constantly $= b$. In the case of three ideas checking each other, the portions remaining are $\frac{a^2}{a+b+c}$, $\frac{b^2}{a+b+c}$, $\frac{c^2}{a+b+c}$, and the sum of arrest is $\frac{2(ab+ac+bc)}{a+b+c}$. Thus it results, that, whatever be the number of ideas in

question, no one of them can be wholly forced out from consciousness, and the theory furnishes no explanation of the phenomena of memory (which must be accounted for wholly, or at least in part, by another principle, unless one adopt the hazardous hypothesis, that of all ideas in memory we are only faintly conscious, but not unconscious). But it is not right, for the purpose of explaining psychical phenomena, to frame arbitrary hypotheses, alien to the very facts concerning the mechanical action and counter-action of ideas, which the fundamental theory assumes. (In a case of partial opposition [$= m$], it would follow, upon Herbart's theory, that a would assert itself with its whole force, while being opposed by a force $= mb$, and hence that the portion of it remaining would be to the portion arrested as a to mb, and therefore the whole intensity (a) to the remaining (r), as $a+mb$ to a, whence results $r = \frac{a^2}{a+mb}$, and r' (or the portion remaining from b) $= \frac{b^2}{b+mb}$)." . . . "A beauty, which should consist in mere relations as such, or a form, for which the substance should be sought only as an element (substratum) indispensable to the existence of the form, would correspond to the principle of the sophistic rhetoric (e. g., to the principle of the rhetoric of Ælius Aristides). An æsthetic form is truly satisfying only when it is the adequate expression of a substance possessing independent worth; the same form or the same relation satisfies or displeases, according to the nature of that [the 'content'] to which it belongs. Hence the relation between substance ['content'] and form belongs in the conception of beauty itself—of beauty, as the objective ground of subjective, æsthetic satisfaction."

To § 134:—

On Braniss cf. C. A. Kletke, *Die geschichts-philos. Anschauung von Braniss*, Breslau, 1849.

[R. Rothe, *Stille Stunden, Aphorismen aus seinem handschriftl. Nachlass*, Wittenberg, 1872. L. Strümpell, *Die zeitliche Aufeinanderfolge der Gedanken* (an address), Berlin, 1872.—*Tr.*]

G. Tepe, *Ueber Freiheit und Unfreiheit des menschlichen Wollens*, Bremen, 1861; *Schiller und die praktischen Ideen*, Emden, 1863.

[G. Th. Fechner, *Zur experim. Ästhetik*, Leips., 1871.

Lotze on the Ideal and Real, transl. by Max. Eberhardt, in *Journ. of Spec. Philos.*, VI., 1, St. Louis, 1872, pp. 4–18; Fauth, *Ueber die Verwendbarkeit der Lotze'schen Philos. für die Theologie*, in *Theol. Stud. u. Kritiken*, 1872, pp. 520–534 (in reply to an article by Prof. Meuss, in the same periodical, 1871, 1, entitled *Die Grundsätze des modernen Denkens in ihrer Anwendung auf d. Christenthum*).

A reply to Stiebeling's refutation of Hartmann's doctrine of the unconscious (see above, end of § 134, Note) is *Philosophie gegen naturwissenschaftliche Ueberhebung, eine Zurechtweisung des Dr. med. Geo. Stiebeling und seiner angeblichen Widerl. d. H.'schen Lehre vom Unbewussten in der Leiblichkeit, von A. T.*, Berlin, 1872. Cf. further J. Bahnsen, *Zur Philos. der Gesch., eine kritische Besprechung des Hegel-Hartmann'schen Evolutionismus aus Schopenhauer'schen Principien*, Berlin, 1872; H. Lawrenny, *A New System of Philosophy. Philosophy of the Unconscious*, in *The Academy*, Vol. III., No. 43, London, 1872, pp. 90–93; J. C. Fischer, *Hartmann's Philosophie des Unbewussten. Ein Schmerzensschrei des gesunden Menschenverstandes*, Leips., 1872; E. Fleischl, *Eine Lücke in Kant's Philosophie und Eduard von Hartmann*, Vienna, 1872. Von Hartmann on A. Lasson's *Princip u. Zukunft des Völkerrechts*, in *Im neuen Reich*, 1872, Nos. 4 and 5; Von Hartmann, *Gesammelte philos. Abhandlungen zur Philos. des Unbewussten*, Berlin, 1872. *Das Unbewusste vom Standpunkt der Physiol. u. Descendenztheorie* (*anonymous*), Berlin, 1872. J. B. Meyer, *Weltelend und Weltschmerz* (on Schopenhauer's and Hartmann's Pessimism), Bonn, 1872; Secretan on Hartmann, in *Rev. Chrétienne*, Sept. Oct., 1872; L. Weiss, *Anti-Materialismus, oder Kritik aller Phil. des Unbewussten*, 2 Bde. 1872.—*Tr.*]

The following biographical references, supplementary to Vol. I., may be added here:—

§ 4. *History of Intell. Philos.*, in *North Am. Review*, Vol. 29, 1829, pp. 67–123.

§ 6. J. H. Plath, *Confucius' und seiner Schüler Leben: Leben des Confucius*, first part, from Chinese sources, Munich, 1871.

§ 7. B. F. Cocker, *Christianity and Greek Philosophy*, New York, 1870; P. Rognisco, *Stor. critica delle Categorie della Filosofia greca sino a Hegel*, Florence, 1871; Herm. Diels, *De Galeni hist. philosophia* (showing the dependence of Pseudo-Galenus on Pseudo-Plutarch and Sext. Empiricus; a Dissertation), Bonn, 1870; B. Büchsenschütz, *De hymnis Orphicis* (Dissert.), Berlin, 1851. *History of Greek and Roman Philos. and Science*, by Bromfield, Blakesley, Whewell, and others; constitutes Vol. 27 of the *Encyclop. Metropolitana*, 2d ed., Lond., 1853.

§ 33. A. Labriola, *La dottrina di Socrate secondo Senofonte, Platone ed Aristotele. Memoria premiata dalla R. Academia di Napoli*, Naples, 1871. E. Levien, *The Memoirs of Socrates for English Readers*, from Xenophon's *Memorabilia*, with Introd., etc. London, 1871. S. Ribbing, *Ueber das Verhältniss zwischen den Xenophont. und Plat. Berichten über die Persönlichkeit und die Lehre des Sokrates, vngl. e. Darst. d. Sokrat. Lehre*, Upsala, 1870, *Ueber Sokrates' Dämonion, ibid.*, 1870. Henry Edward (Manning), Archbishop of Westminster, *The Daemon of Sokrates*, London, 1872.

§ 40. *Platonis Protagoras. The Greek text revised, with an Analysis and English Notes*, by W. Wayte, 2d ed., Lond., 1871. Editions of Plato's *Philebus, Symposion, Euthydemus* and *Laches*, by Charles Badham, D.D., London: Williams and Norgate; W. L. Blackley, *The Authenticity of the Works of Plato* (an exposition of Schaarschmidt), in the *Fortnightly Review*, new series, II., 1867, pp. 272–286; J. E. Lincoln, *The Platonic Myths*, in *Bapt. Quarterly*, VI., Philadelphia, 1872, pp. 333–358.

B. Jowett, *The Dialogues of Plato; translated into English*, London and New York, 1871 (reviewed, among others, by W. H. Thompson, in *The Academy*, London, 1871, pp. 223–227, 243–246.)

R. W. Emerson (*Representative Men*), Bayne (*Essays*, 2d series), De Quincey (*Hist. and Crit. Essays*, I.), Martineau, and others, write upon Plato.—Prof. Godman, *Life of Plato*, in *Meth. Qu. Review*, XII., 1860, pp. 368–386; Steinhart, *Die Quellen für Platon's Leben*, in *Zeitschr. für Philos.*, 61, 1872, pp. 1–38.

§ 41. S. J. Douglass, *Plato's Conception of a Supreme Being*, in *New Englander*, 28, 1869, pp. 639–674.

§ 43. *The Ethical Philos. of Plato*, in *Am. Church Rev.*, 22, N. Y., 1870, pp. 175–190; *Plato's Idea of the Spirit as Personal, and his Views of Education*, in *Bibliotheca Sacra*, 18, 1861, pp. 222–227; E. Zeller, *The Influence of Plato's Social Theories on Modern Times*, in *Contemporary Review*, VII., 1868, pp. 228–241; J. C. C. Clarke, *Platonism and Early Christianity*, in *Bapt. Quarterly*, Philadelphia, 1867, pp. 257–279.

§§ 45–50. A number of volumes of translations of Aristotle's works are included in Bohn's Classical Library. Of these, the *Metaphysics* at least is very poorly translated. John Gillies, *Aristotle's Ethics and Politics*, translated, 2 vols., 3d ed., London, 1813. E. A. Park, *Life of Aristotle*, in the *Bibl. Sac.*, I., 1844, pp. 39–84, 280–309. Articles on the *Philos. of A.*, in the *N. Brit. Rev.*, Vol. 45, Sept., 1866, on *A., his Works and Philos.*, in *Dublin Univ. Mag.*, 72, 1868, pp. 1–20, on the *Relation of A.'s ethical system to the Christian*, in the *Bibl. Sac.*, X., 1853, p. 802 seq., on *A. and his Educational Views*, in the *Am. Journal of Education*, XIV., 1864, pp. 131–146, on Aristotle's *Ethics*, in the *Am. Theol. Rev.*, II., 1860, pp. 54–63 (by D. R. Goodwin), on his *History of Animals*, in *Lond. Qu. Rev.*, Vol. 117, 1865, January. Thos. Reid, *A Brief Account of A.'s Logic*, in R.'s *Collected Writings*, 4th ed., Edinburgh and London, 1854. George Grote, *Aristotle*, Lond., 1872. J. S. Blackie, *Fundamental Phases of Morals* (with reference to Socrates, Aristotle, Christianity, and Utilitarianism), Edinburgh, 1872.—R. Eucken, *Ueber die Bedeutung der Arist. Philos. für die Gegenwart* (an address), Berlin, 1871. *A.'s drei Bücher von der Seele, übersetzt und erläutert von J. H. von Kirchmann*, Berlin, 1871.

§ 61. T. W. Levins, *Six Lectures Introductory to the Philosophical Writings of Cicero*, London, 1871.

§§ 76–86. The *Ante-Nicene Christian Library*, edited by A. Roberts and James Donaldson, and in course of publication at Edinburgh and New York, contains the works of Justin Martyr and Athenagoras (in 2 vols.), Origen (2), Cyprian (2), Tertullian (4), Clement of Alexandria (2), Irenæus, Hippolytus, Tatian, Theophilus, the Clementine Recognitions, the Clementine and Apostolic Institutions, Methodius, Arnobius, Lactantius (2 vols.), Gregory Thaumaturgus, Dionysius of Alexandria, and Archelaus. *The Works of Aurelius Augustinus, Bishop of Hippo;* a new translation, edited by Marcus Dods, Vols. I. and II., Edinburgh and New York, 1871–72.

§ 101. *St. Thomas of Aquin, his Life and Labors, by the Very Rev. Roger Bede Vaughan*, 2 vols., Hereford, 1871-72.

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