

## CHAPTER XI

### SUMMARY AND OBSERVATIONS

#### 11.1 BRIEF RESUME

The present work attempted to measure the postulated three dimensions of personality, viz:

Introversion-extraversion,  
Normal-neuroticism, and  
Normal-psychoticism.

Items were constructed for the three scales on the basis of the review of the symptoms or characteristics of these dimensions as described by different psychologists, the review of available foreign test material used to measure these or similar traits, and discussions with a few psychologists on the manifestations of these dimensions in

terms of behaviour. They were edited and assembled into an Inventory. Suitable instructions and separate answer-sheet were prepared. Glossary of difficult words was also prepared for use of the subjects. This form of the Inventory was administered to a random sample of 370 subjects, representing the cross section of the population for which the Inventory was prepared.

The above data was used to calculate the preference index and discrimination index for each of the items. This was required to pair the items into a forced-choice kind of scale. Each pair had items with equal preference values, one of which was discriminating while the other was not. Keying was based on the subject's endorsement of this more discriminating member of the pair as more or less applicable to him. It was surprising to note that while thirty and forty-two items were retained as discriminating in the IE and NN scales respectively, only five were found to be discriminating in the normal-psychoticism scale. Thus, this exploratory

attempt to measure the general factor of psychotism gave negative result and the scale was dropped from the Inventory. Second form of the Inventory consisted of seventy-two pairs of items belonging to the IE and NN scales.

It was decided to validate the items further on the basis of independent criteria. Criterion groups were selected by rating method, for the two scales. The second form of the Inventory was administered to them. Chi-square values were calculated from this data as indices of item validity. Twenty items belonging to the IE scale and twenty-two belonging to the NN scale turned out to be valid on Chi-square test. Only these pairs of items were selected for being included in the final form of the Inventory. This form was administered to 3114 subjects including men and women, students from the three universities of Gujarat, teachers, clerical and administrative personnel. This data was used for the norms study and for the determination of reliability.

## 11.2 OBSERVATIONS

(1) The attempt was made to measure the three dimensions of personality. The Inventory was successful in measuring only two of them, viz: introversion-extraversion and normal-neuroticism. The general trait of psychoticism could not be assessed. Of the forty-seven items keyed to this scale, only five turned out to have optimum discriminative value. This was, of course, an explanatory attempt in this direction. With the negative results the scale was dropped from the Inventory. The sample for standardization of this Inventory consisted of mostly normal people, who had good education, or who were studying in colleges. This could be one of the reasons why general factor of psychoticism could not be measured. If an independent scale is constructed to measure this factor only, and it is applied to a cross-section of the whole population, including some people with psychotic tendencies, it might be possible to measure this factor by Inventory method. Secondly, much fundamental and exploratory research

is also needed before items can be constructed, to identify symptoms which are common to different psychotic tendencies, and which are continuous with normal form of behaviour.

(2) It is often mentioned that foreign tests are not very useful for our purposes. The present Inventory showed that it had items which were very much similar to the foreign ones and they proved to be valid for our purposes. This is understandable when it is accepted that fundamental laws of behaviour are same for all the people. Psychologists go to the extent of saying that they are similar in animals too, where they manifest themselves in more simpler forms. If this is so, in human beings at least, fundamental symptom characteristics of different types of behaviour should not differ much from one culture to another. This inference has, of course, certain limitations which should also be recognized. For example, one item has a reference to, say, night-club. In cultures where night-clubs are not common, the item may not have any significance. In such

case it has to be substituted by something which is more appropriate in that culture. Yet the form of behaviour might not change. Secondly, expressions of behaviour have different meanings in different cultures. This also limits the use of tests from one culture to another. However, the inventories of the present nature, compass simple and straight-forward expressions which are more common to human species in general than to specific cultures. Very specific items are exceptions rather than a rule. This is just to make an observation about the possibility of adapting the foreign tests with minor modifications to suit our purposes.

(3) The Inventory was administered to a group of students ( $N=100$ ). Product moment coefficient of correlation was calculated between the two dimensions. The correlation obtained was .105, which was obviously not significant. This confirmed with the hypothesised structure in the first chapter. The common belief that introversion and neuroticism go together did not hold true. Introverts and extra-

verts, both may develop neurotic tendencies equally often. May be that the form of neurotic behaviour may differ in the two cases. Eysenck has done a great deal of research in this connection and has reported volumes of data. His observations are along the same lines. His publications mentioned in the bibliography, are mainly aimed at discussing the results of his researches on this problem.

(4) The Inventory was administered to quite a large population for the purpose of norms study. There were no group differences from college students to non-collegiate educated population on any of the scales. The mean scores did not vary significantly from one faculty to another within the university or from junior students to senior students. This meant that duration of college education was not a factor in deciding a person's status along any of the two scales. Even, it had no effect on the emotional stability and poise of the person. This observation that the present college education does not influence emotional stability or poise, should be an eye-opener.

for those defining the objectives of higher education and those who decide upon its curriculum.

There were no sex-differences with regard to introversion-extraversion scale. However, the difference between men and women on normal-neuroticism was statistically significant, though its magnitude was less than one-third of the standard deviation. Women scored higher than men. This was in conformity with the general belief about the emotional nature of the two sexes. Women do tend toward greater emotionality.

(5) As in case of personality inventories in general, this Inventory, too, had high reliability values for both the scales. Both split-half and test-retest reliabilities were around .85. Kuder-Richardson reliability values were small, but it is known that this method underestimates the reliability of tests.

(6) As regards the content validity of the inventory, it can be said that the procedure adopted



in the construction of the items ensured this. All the items were based on the descriptions of the attributes measured in the psychological literature, their use in other inventories, and the agreement of psychologists regarding their relevance to the scale.

The concurrent validity was ensured by the cross validation of individual items. The selection of external criteria by the independent method served this purpose better. Often, cross validation of the whole scale is done on the basis of the scores of the two criterion groups. But this leaves the possibility of the existence of a few non-discriminating items in the scale. The cross validation of individual items eliminates this possibility.

(7) The Inventory was used in one of the investigations in a nearby university. The problem was to study the various factors related to success in college education. Data regarding intelligence, interests, leisure-time activities, personality variables and college achievements were collected.

For the assessment of the personality variables, the present Inventory was used. The study did not prove very conclusive, because of the reported unreliability of the college examinations. However, there was a hint regarding the role of personality variable in scholastic achievement. The underachievers scored low on IE scale and high on NN scale. This meant that they tended to be more extravert and neurotic of emotionally unstable. The high scorers showed the opposite tendency, i.e., they were more introvert and emotionally stable persons. If more data is collected and reliable assessments are made, more conclusive statement can be made. This tentative finding is in conformity with the general belief and observation, but more data about how these factors actually influence the achievement, whether directly or through other correlated forms of behaviour, should be collected to study this problem in details.

With these observations made during the course of the construction and standardization of the Inventory, it can be said that it should turn

out to be a valuable tool for use in research, guidance and counselling in higher education. Its real worth would be proved, however, only when it is used for practical purposes. Suggestions for further work on it and its use are offered in the following chapter.