

## CHAPTER ELEVEN

### SUMMARY AND SUGGESTIONS

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It has been a fact acknowledged by most that the environment under which the early years of childhood have been spent is the most determining factor for the type of personality development that an individual attains. The type of the family, the size of the family, the number of siblings and the ordinal position of an individual therein, the types of interactions and inter-personal relationships within siblings as well as between siblings and parents, the socio-economic status of the family, the neighbourhood and the peer groups - all these exert much influence in shaping an individual's personality, whether he or she would become serious or happy-go-lucky type, anxious or care-free, extrovert or introvert, conservative or reformist type, aggressive or submissive, ideal and honest

or practical type, well-adjusted or less-adjusted personality, socially or in the family, of this nature or that, having one interest or the other and so on.

A number of investigations have been carried out especially in the West to relate the environmental and family factors with different aspects of personality development, though hardly a few systematic ones in our country where the need of such studies is all the more urgent. Particularly when the campaign for family planning has been receiving the maximum attention of the government and social agencies in our country, a project like the present one to study the growth of some intellectual and personality traits of boys and girls as influenced by the ordinal position of the child and the size of the family would be most adequate to throw some light on some of the trends in child development and guide the workers in this area. The present work has been undertaken with a view to investigating some of such relations between the ordinal status as well as family size on one hand and on the other hand some of the personality traits as well as some intellectual characteristics of adolescents. The inclusion of both boys and girls in the sample of study enabled the investigator to study also the sex differences at the same time. More specifically, the present study examines the following hypotheses :

1. Whether boys differ from girls in their adjustment processes - family adjustment, social adjustment, and personal adjustment.
2. Whether the first-born is different from those born at other positions (namely, second-born, middle-born, and last-born) in family adjustment, social adjustment or personal adjustment, i.e. whether birth order position of a child is in any way related to adjustment processes.
3. Whether the size of the family is contributing any thing to adjustment.
4. Whether boys and girls differ in some of the personality traits, viz. on anxiety scale, extroversion-introversion scale and different aspects of conservative-reformist scale.
5. Whether ordinal position and family size are in any way contributing to the above referred personality traits.
6. Whether there are any differences in some of intellectual characteristics, such as study and reading habits of children of different birth order.

In order to test the above hypotheses, the following tools constructed and standardized in Gujarati by Dr. A.S. Patel at the Department of Psychology of the M.S. University of Baroda, were used :

1. Family Adjustment Inventory
2. Personal-Social Adjustment Inventory
3. Anxiety Scale
4. Extroversion-Introversion Scale
5. Conservative-Reformist Scale
6. Study Habits Inventory

Besides, a short general questionnaire was used to collect some background information needed.

All these tools were administered to a sample consisting of both adolescent Gujarati boys and girls between 14 to 17 years of age in different high schools of Gujarat. The final sample whose data was available for analysis consisted of high school-going pupils, made up thus, the number being 1436.

- (a) Sex-wise :        735 Boys  
                      701 Girls
- (b) Birth-order-wise : 500 First-born  
                          308 Second-born  
                          332 Middle-born  
                          296 Last-born
- (c) Family Size-wise : 100 from family size with one sibling only  
                          183 Family size with 2 siblings  
                          190        -do-        3        ,,  
                          313        -do-        4        ,,  
                          291        -do-        5        ,,  
                          359        -do-        6 or more siblings

The responses of all these subjects of the study were scored, computed, tabulated and subjected to adequate statistical techniques (especially analysis of variance technique) in order to study the differences in different adjustment and personality scores as a function of main variables under study, viz. sex, ordinal status and family size of the subjects. The results have been presented and discussed in the main body of the thesis. The inferences warranted by the statistical analysis have been re-summarized below.

## SUMMARY

### A. ADJUSTMENT PROCESSES

#### Family Adjustment

The overall analysis of the data reveals that -

- (a) Boys and girls on the whole did not differ significantly on scores in family adjustment.
- (b) Order of birth of a child was a significantly contributing factor in family adjustment. On the whole, most adjusted of all groups were the second-born; next were first-born and last-born almost equal; somehow, the middle-born (i.e. born after the second and before the last, youngest) were the least adjusted amongst these four categories. All pairs of birth order differed from other, except the first-born and the last-born.

(c) Sex and birth order showed a significant interaction.

To speak orderwise, both among boys and girls, first born and last-born were not different at all. However, among boys, all other pairs were significantly different, and among girls only second-born differed from other groups, and none else. Wherever differed, boys scored higher than girls among first-born and second-born, while girls scored higher than boys among middle-born and last-born. All this accounts for significant interaction between sex and birth order.

(d) Again, the family size was independently of sex the most significant factor in social adjustment. F2 group was the most adjusted, and then beginning with F1, there was a trend of decrease with increase in family size in family adjustment.

When data were analysed to compare the findings on children of varied birth order, the study warranted the following inferences :

(a) Comparison between the first-born and other later born siblings :

- (i) Boys did not significantly differ from girls, as confirming the general finding above.
- (ii) Strangely, birth order that was found above to be significant did not turn out to be a significant factor in this analysis. This can be explained by significant interaction explained below.

(iii) There was significant interaction between the sex and the birth order, though both by themselves were insignificant in this analysis. From examination of cells, it would be safer to infer that sex might be always insignificant by itself, and birth order which was generally significant became insignificant in this case due to totalling of all later-born differing in opposite direction; however, both sex and birth interaction showed significance.

(b) Comparison between the only child group and the other first-born group :

- (i) There were no significant sex differences.
- (ii) Only child did not differ from first-born child.
- (iii) There was no significant interaction between these two.

(c) Comparison between only born boys and first-born boys :

The separate analysis of data on only born boys and other first-born boys also showed no significant differences between the two thus confirming the earlier sub-finding (b)(ii) above, though there was a tendency among the only boys to be somewhat more adjusted than other first-born boys.

(d) Comparison between only born girls and first-born girls:

Similarly, the separate analysis of data on only born girls also showed no significant differences

between the two thus confirming the earlier findings in (b)(ii).

- (e) Comparison between first-born children of mixed sexes and first-born children of the same sexes :

The analysis revealed a very interesting finding that first-born children of mixed sex were more adjusted than first-born children of the same sex.

- (f) Comparison between the only child group and the later-born (excluding the first-born) :

- (i) There were no sex differences.
- (ii) There were no birth order differences.
- (iii) The interaction between the two was significant at .05 level.

- (g) Comparison between the first-born and the last-born (youngest) :

- (i) There was no significant sex differences.
- (ii) Unexpectedly, there were no significant birth order differences.
- (iii) There was no significant interaction between the two. Thus, contrary to expectation, the first-born did not differ from the last-born.

- (h) Comparison between the last-born (youngest) and total of the second-born and the middle-born :

- (i) No sex differences were observed.
- (ii) No birth order differences were significant.



(iii) Nor was there significant interaction between the two. Individually, last-born differed from the more adjusted second born or the less adjusted middle born as shown earlier, but it did not differ from the aggregate of the two.

(i) Comparison between the last-born and the only born :

(i) There were no sex differences.

(ii) The only born were more adjusted than the last-born.

(iii) There was no significant interaction. These findings compared with those in (g) above equate the first born and the only born and thus confirm the findings in (b) above.

3. When data were analysed with respect to sex and family size for each ordinal status, the result revealed thus :

(a) Within the first-born :

(i) Boys and girls differed significantly at .05 level, boys scoring higher than girls on family adjustment, except at F2 level.

(ii) Size of the family was found to be a significant contributing factor to the family adjustment. Among the family sizes of 1, 2, 3, 4, 5 and 6 or more, children in the family with two children were the most adjusted; next best were children with family size of one or three or four children, not much differing from one another; amongst all groups, the

least adjusted were children with family size of five or six and more, both not much differing. In other words, best number is two, excepting F2 and including F1, the greater the number, the less the family adjustment among the first-born.

- (iii) In most of the family sizes, boys were more adjusted than girls; at F2 girls were more adjusted than boys.

(b) Within the second-born :

- (i) The boys did not differ from the girls.
- (ii) Nor was there any significant interaction between sex and family size.
- (iii) Only the family size was a significant factor in family adjustment. Again, the greater the family size, the less the adjustment. Amongst family sizes of 3, 4, 5, 6 and more (excluding size of 2, second-born being the last-born or youngest), most adjusted groups were children in family size of three and four which did not differ much; next best was size of five and least adjusted was size of six and more.

(c) Within the middle-born :

- (i) There were significant sex differences; girls scored higher in family adjustment.
- (ii) There were significant family size differences at .05 level. Amongst groups of family sizes of 4, 5 or 6 (excluding 3 being last-born), more adjusted

was the group of family size of six, not much differing from size of four; least adjusted was size of five, which differed from both size of four and six.

- (iii) There was significant interaction between sex and family size. Boys scored higher in F4 and F6 to some extent, but not significantly; while girls scored significantly higher in F5. This accounts for significant interaction.

(d) Within the last-born (Youngest) :

- (i) There were no sex differences.
- (ii) Nor was there any significant interaction between sex and family size.
- (iii) Only the family size was a significant factor.  
Amongst the family sizes of 2, 3, 4, 5 and 6 or more (excluding size of 1 being both first and last-born), most adjusted were again unexpectedly children in F6; next best in F5; F3 and F4 were next equal; F2 was least adjusted.

### Social Adjustment

1. The overall analysis of data on social adjustment revealed the following observations :

- (a) Boys and girls, on the whole, did not differ significantly on scores in social adjustment.

- (b) Birth order of a child was a significant factor contributing to social adjustment. On the whole, the most adjusted socially were the first-born and the second-born, both being almost equal; next were the last-born and then the least adjusted were the middle-born.
- (c) There was significant interaction between sex and birth order, thus showing that the birth order was mainly the contributing factor in social adjustment.
- (d) Family size also played a significant role in social adjustment. F2 group was the most adjusted and then beginning with F1 there was a trend of decrease in social adjustment with the increase in family size.
- (e) However, family size interacted significantly with sex as far as social adjustment was concerned. Among boys, F1 was the most adjusted and then all other sizes were in decreasing order of adjustment systematically in the same order of increase of size. (F2, F3 and F4 forming almost equal groups, and then F5 and F6 being equal). Among girls, F2 was the most adjusted, next best was F1; and then in decreasing order were F4, F5 and F6, all these being not much different among themselves. This accounts for significant interaction.

2. When data on social adjustment were analysed to compare findings on children of varied birth order, the analysis warranted the following inferences :

- (a) Comparing the first-born with all other later-born siblings, it was found that -
  - (i) there were no sex differences.
  - (ii) the first-born significantly were socially more adjusted than the later-born.
  - (iii) there was no significant interaction between sex and birth order, i.e. birth order was mainly the contributing factor.
- (b) Comparing the only child group with the other first-born, it was found that -
  - (i) it was interestingly observed that there were no significant differences between the only children and other first-born children either due to sex, birth order or interaction, i.e. both were the same as far as social adjustment was concerned.
- (c) The separate analysis of data of these boys and these girls showed that -
  - (i) the only born boys were not different from the other first-born boys.
  - (ii) however, the only born girls were significantly more adjusted socially than the other first-born girls.

- (d) The analysis of the data of the first-born boys and first-born girls as siblings of mixed sex versus siblings of same sex in family showed that -
- (i) the first-born children of mixed sex among the siblings were significantly more adjusted socially than the first-born siblings of the same sex in a family.
- (e) Comparing the only child group with the other later born group, it was found that -
- (i) there were no sex differences.
  - (ii) the only child group was significantly more adjusted socially than the later born.
  - (iii) There was no significant interaction.
- (f) Comparing the first-born with the last-born, it was found that -
- (i) there were no sex differences.
  - (ii) the first-born were significantly more adjusted socially than the last-born.
  - (iii) there was no significant interaction.
- (g) Comparing the last-born with aggregate of the second and the middle-born, it was found that -
- (i) there was no difference due to either sex, birth order or interaction, i.e. both groups were the same.

(h) Comparing the last-born with the only child group,  
it was found that -

- (i) there were no sex differences.
- (ii) the only child group was significantly more adjusted socially than the last-born group.
- (iii) there was no significant interaction.

3. When the data on social adjustment were analysed to compare the findings on children belonging to families of different sizes, the following conclusions were warranted :

(a) Within the first-born :

- (i) There were no sex differences.
- (ii) There were no differences due to family size.
- (iii) There was apparently no significant interaction between sex and family size due to different directions of social adjustment of boys and girls at different sizes. F2 girls and F1 boys were the most adjusted, and then there was a trend of decrease with increase in family size.

(b) Within the second-born :

- (i) Boys were significantly more adjusted socially than the second-boys.
- (ii) Family size was a significant factor. Sizes in decrease order of adjustment stood thus : F5, F4, F6 and F3 on the whole.

- (iii) There was no significant interaction between sex and family size.

### Personal Adjustment

1. The overall analysis of data on personal adjustment warranted the following inferences :
  - (a) Boys, on the whole, showed greater personal adjustment than girls.
  - (b) Birth order was found to be a significantly effective factor contributing to personal adjustment. On the whole, the first-born turned out to be the most adjusted personally, next best was the middle-born and the almost of equal standing were the last-born and the second-born.
  - (c) There was significant interaction between sex and birth order. It might be said that <sup>among</sup> boys, the first-born were most adjusted, while among girls, the middle-born were most adjusted, and that sex by itself would perhaps not be a contributing factor as in other adjustment processes, but used to show significance while interacting with the birth order.
  - (d) Family size also played a significant role in personal adjustment. Family size of one child seemed to be most contributory, and then there appeared a general



trend for personal adjustment to decrease with the increase in family size, except with F6 which somehow stood second best.

- (e) However, there was also significant interaction between sex and family size; F1 boys were most adjusted in contrast to most adjusted F2 girls.

2. The analysis of data to compare the significance of various birth orders revealed the following findings :

- (a) Comparing the first-born with all other later-born siblings on personal adjustment, it was found that -
  - (i) there were significant sex differences; boys scored higher than girls.
  - (ii) birth order was a significant factor; the first-born were more adjusted than the later-born.
  - (iii) there was however significant interaction between sex and birth order; the first-born boys differed significantly from the first-born girls, but there were not sex differences among the later-born.
- (b) Comparison between the only child group and the other first-born groups revealed that -
  - (i) boys scored significantly higher than girls on the whole.
  - (ii) only child group scored significantly higher than the other first-born group.

(iii) however, there was also significant interaction between the two, as explained in the next finding (c).

- (c) The separate analysis of data of only born boys and only born girls as compared with other first-born boys and girls showed that the only born boys differed from other first-born boys, but there were no differences between the only born girls and other first-born girls.
- (d) The further analysis of data of first-born boys and girls reared with same sex or mixed sex revealed unexpectedly that there were no differences in personal adjustment between the first-born of mixed sexes and of same sex.
- (e) Comparing the only child group with the later-born group, it was observed that -
- (i) boys scored somewhat higher than girls.
  - (ii) only child group scored significantly higher than the later-born.
  - (iii) there was significant interaction between the two variables.
- (f) Comparing the first-born with the last-born, it was found that -
- (i) boys scored significantly higher than girls.

- (ii) the first-born were significantly higher than the last-born.
  - (iii) there was also significant interaction.
- (g) Comparing the last-born with the aggregate of the second-born and the middle-born, it was noted that -
- (i) there were no sex differences.
  - (ii) aggregate of second and middle-born stood higher than the last-born.
  - (iii) there was no interaction.
- (h) Comparing the last-born with the only child group, it was revealed that -
- (i) the only child group was more adjusted than the last-born group.
  - (ii) boys were more adjusted than girls.
  - (iii) there was also significant interaction.
3. The analysis of data to compare the significance of the size of the family at each birth order enabled the investigator to draw the following conclusions on personal adjustment.
- (a) Within the first-born :
- (i) There were significant sex differences; boys scored higher than girls on personal adjustment.
  - (ii) Family size was the significant factor in personal adjustment; F1 size contributed maximum to personal

adjustment, though there was no specific trend in decrease with increase in size.

(iii) Family size interacted significantly with sex.

(b) Within the second-born :

(i) Only the family size was a significant factor; not sex nor interaction. F6 turned out to be most adjusted.

(c) Within the middle-born :

(i) Sex did not play any role.

(ii) Family size was significant.

(iii) There was significant interaction.

(d) Within the last-born :

(i) Neither sex nor family size showed significant effect independently.

(ii) However, both interacted significantly.

## B. PERSONALITY TRAITS

### Anxiety Scale

#### Sex Variable

1. On the whole, the sex was found to be a significant factor contributing to anxiety state; girls were usually more anxious than boys. However, closer examination has revealed that sex was most effective only among the second-born children.

2. While making comparison between different birth orders, the sex was found significant in case of comparison between the first-born Vs. other later-born, between only child group Vs. later-born, between only child group and the later-born, between last-born Vs. aggregate of second-born and middle-born; but not at all between only child group and other first-born, between first-born and last-born.
3. While studying the role of family sizes at different birth order positions, again the sex was significant only within the second-born, and not at all within the first-born, the middle-born and the last-born (even after taking out the data of some children from few families of some sizes for the purpose).

In other words, sex was a contributing factor to anxiety of mostly second-born children, making usually girls more anxious.

#### Birth Order Variable

4. Birth order was always significantly contributing to anxiety state of subjects under study, both among boys and girls of each birth order, making one birth order group significantly different from the other group in all cases of possible comparison. Usually, the second-born were the least anxious, then in increasing order

were the last-born, the middle-born and the first-born who were most anxious.

5. In birth order comparisons under study, the first-born were more anxious in comparison to other later-born.
6. Only children were less anxious in comparison to other first-born.
7. Only boys were less anxious in comparison to other first-born boys.
8. Only girls were also less anxious in comparison to other first-born girls.
9. Siblings of same sex among the first-born were more anxious than those of mixed sexes among the first-born.
10. Only children were more anxious than other later-born.
11. The first-born were more anxious than the last-born.
12. There were not birth order differences between last-born on one hand and the aggregate of second and middle born on the other.
13. Only children were more anxious than the last-born.

#### Family Size Variable

14. Family size was a significantly contributing factor to anxiety state. There was a general trend of systematic increase in anxiety level with the increase in size of

family within the first-born children; however, the children from F2 were the least anxious among F1, F2, F3, F4, F5 and F6 under comparison.

15. Among the second-born, family size was a significant factor with the same systematically increasing trend, except F4 being the least anxious among F3, F4, F5 and F6 under possible comparison.
16. Among the middle-born also, family size was significant with the same systematically increasing trend among F4, F5 and F6 under possible comparison.
17. Finally, among the last-born, the family size was again significantly contributing to anxiety state, but not showing the systematic trend of increase or decrease. In order of family sizes with increasing level of anxiety was F3 (least) anxious); F6, F5, F2 and F4 (most anxious) - among family sizes under possible comparison.

#### Extroversion-Introversion Scale

The analysis of data on one of the personality traits, viz. Extroversion-Introversion State of subjects under study revealed the following findings :

#### Sex Variable

1. On the whole, sex was a significant variable as far as extroversion was concerned; girls were more extrovert than boys on the whole.

2. In relation to the birth order, there were significant sex differences on the whole (girls scoring higher than boys on extroversion) only among the second-born, and not among any other birth order group; so also there were significant sex differences (girls always higher than boys) in case of comparisons between only child group and other later-born group, and also between the last-born and the aggregate of second and middle born; there were no significant sex differences in case of comparisons between other birth order groups.
3. Similarly in relation to the family size, there were significant sex differences on the whole also among the second-born children only, and not at other orders in relation to family size.

#### Birth Order Variable

4. Again, it has been observed that the birth order was a significant variable on the whole; there was specific trend of increase in extroversion with the increase in birth order position, particularly on the whole.
5. Again, in case of comparisons between first-born and later-born, (later-born being more extrovert than first born), between first-born of mixed sexes and first-born of same sex (same sex scoring higher), between the only child group and other later-born groups, and between last-born and only child group (last-born scoring



higher), there were significant birth order differences; there was no significant differences in case of comparison between other pairs of birth order.

#### Family Size Variable

6. As regards the role of family size in extroversion level it was observed that family size was a significant factor contributing to extroversion among the first-born; there was a systematic trend of increase in extroversion with increase in family size (except at F2 which was lowest or most introvert among F1 to F6).
7. Among the second-born available children also, family size was a significant factor, but without any systematic trend (F6 being highest and F5 being the lowest among F3, F4, F5 and F6).
8. Similarly, among the middle-born available children also, family size was a significant factor but without any systematic trend as in case of the second-born (F6 scoring highest and F5 scoring the lowest among F4, F5 and F6).
9. Finally, among the last-born children, the family size was again a significant factor with a general systematic trend of increase in extroversion level with increase in family size (excepting F6 which was lesser than F5, F2 being the lowest or most introvert and F5 being the most extrovert, among children of family sizes from F2 to F6).

Conservative-Reformist Scale (C-R Scale)A. Birth Order Comparison(i) Social

1. Sex was not significant on the whole; truly significant in favour of boys (i.e. being socially more reformist) among first-born and second-born, and in favour of girls among middle-born; not at all among last-born.
2. Birth order was significant on the whole; truly significant in some pairs of birth order, differently for boys and for girls.
3. Thus, interaction between the two mass was significant.

(ii) Religious

4. Sex was significant on the whole as well as in each birth order, always in favour of girls being religiously more reformist.
5. Birth order was not significant on the whole; truly significant in some birth order pairs among boys only.
6. There was significant interaction.

(iii) Educational

7. Sex was significant on the whole; truly significant in favour of boys among first-born and second-born only and not among second-born and middle-born.

8. Birth order was also significant on the whole; truly first-born and second-born were equal and different from middle-born and last-born both being equal.

(iv) Women

9. Sex was significant on the whole as well as at each birth order in favour of girls being more reformist on views on women.
10. Birth order was not significant on the whole; and among boys but in some pairs of girls.
11. Neither was interaction significant.

(v) Fashions

12. Sex was significant on the whole as well as at each birth order in favour of girls being always more reformist on views on fashions.
13. Birth order was not significant on the whole, nor among boys but sometimes among girls.
14. There was significant interaction.

First-born Vs. Other Later-born

(i) Social

1. Sex was not significant on the whole; truly significant among F.B. only in favour of boys.
2. Birth order was significant on the whole in favour of F.B.; and also among boys as well as girls.
3. Interaction was significant.

(ii) Religious

4. Sex was significant in favour of girls on the whole as well as among F.B. and other born also.
5. Birth order was not significant on the whole; truly significant among boys only in favour of first-born.
6. Interaction was significant.

(iii) Educational

7. Sex was significant on the whole in favour of boys; truly significant among first-born only.
8. Birth order was significant on the whole as well as among boys and girls in favour of first-born.
9. Interaction was significant.

(iv) Women

10. Sex was significant on the whole as well as among F.B. and also later born in favour of girls.
11. Birth order was significant on the whole as well as among boys and girls in favour of first-born.
12. There was no interaction.

(v) Fashion

13. Sex was significant on the whole as well as among first born and later born in favour of girls.
14. Birth order was significant on the whole in favour of later-born; significant also among boys in favour of F.B. and significant among girls in favour of later-born.
15. Interaction was also significant.

Only Child Vs. Other First-born(i) Social

1. Sex was significant on the whole in favour of boys; truly significant among the only born and not among other first-born.
2. Birth order was not significant on the whole; truly significant among boys in favour of only born and significant also among girls in favour of other first-born.
3. Interaction was significant.

(ii) Religious

4. Sex was significant on the whole in favour of girls; truly significant among other first-born and not among the only born.
5. Birth order was not significant on the whole; truly significant among girls in favour of other first-born.
6. Interaction was significant.

(iii) Educational

7. Sex was significant on the whole in favour of boys; truly significant among the only born and not among other first-born.
8. Birth order was significant on the whole in favour of other first-born; truly significant among girls only and not among boys.
9. Interaction was not significant.

(iv) Women

10. Sex was significant on the whole as well as among the only born and also the other first-born in favour of girls.
11. Birth order was also significant on the whole as well as among boys and girls in favour of only born.
12. There was no interaction.

(v) Fashions

13. Sex was significant on the whole in favour of girls; truly significant among other first-born and not among only born.
14. Birth order was significant on the whole in favour of other first-born; truly significant among girls.
15. There was no interaction.

Only Born Boys Vs. Other First-Born Boys

(i) Social

1. Birth order was significant in favour of only born boys.

(ii) Religious

2. Birth order was not significant.

(iii) Educational

3. Birth order was not significant.

(iv) Women

4. Birth order was significant in favour of only born boys.

(v) Fashions

5. Birth order was not significant.

Only Born Girls Vs. Other First Born Girls(i) Social

1. Birth order was significant in favour of other first-born girls.

(ii) Religious

2. Birth order was significant in favour of other first-born girls.

(iii) Educational

3. Birth order was significant in favour of other first-born girls.

(iv) Women

4. Birth order was significant in favour of only born girls.

(v) Fashions

5. Birth order was significant in favour of other first-born girls.

First-born of Mixed Sex Vs.First-born of the Same Sex(i) Social

1. There ~~were~~ were no differences between mixed sex and same sex.

(ii) Religious

2. There were no differences between mixed sex and same sex.

(iii) Educational

3. There were no differences between mixed sex and same sex.

(iv) Women

4. Mixed sex first-born siblings were significantly more reformist than same sex F.B. siblings.

(v) Fashions

5. There were no differences between mixed sex first-born and same sex first-born.

Only Child Vs. Later Born

(i) Social

1. Sex was not significant on the whole; truly significant among the only born in favour of boys.
2. Birth order was significant on the whole in favour of the only born; truly significant among boys and not girls.
3. Interaction was significant.

(ii) Religious

4. Sex was significant on the whole in favour of girls; truly significant among later-born.
5. Birth order was not significant on the whole; truly significant among boys in favour of only born, and also among girls in favour of the later-born.
6. Interaction was significant.

(iii) Educational

7. Sex was not significant.
8. Birth order was not significant.
9. Interaction was not significant.



(iv) Women

10. Sex was significant on the whole as well as among the only born and also later born in favour of girls.
11. Birth order was significant on the whole as well as among boys and girls in favour of the only born.
12. There was significant interaction.

(v) Fashions

13. Sex was significant on the whole in favour of girls; truly significant among the later-born.
14. Birth order was significant on the whole in favour of later-born; truly significant among the girls.
15. There was significant interaction.

First-born Vs. Last-born

(i) Social

1. Sex was not significant on the whole; truly significant among the first-born in favour of boys.
2. Birth order was significant on the whole as well as among boys and girls in favour of first-born.
3. Interaction was significant.

(ii) Religious

4. Sex was significant on the whole as well as among first born and last born in favour of girls.
5. Birth order was significant on the whole in favour of F.B.; truly significant only among boys, but not among girls though somewhat in favour of last-born.
6. There was significant interaction.

(iii) Educational

7. Sex was significant on the whole as well as among first born and last born in favour of boys.
8. Birth order was significant on the whole as well as among boys and girls in favour of first born.
9. There was no interaction.

(iv) Women

10. Sex was significant on the whole as well as among first born and last-born in favour of girls.
11. Birth order was significant on the whole in favour of first-born; truly significant only among girls.
12. There was no interaction.

(v) Fashions

13. Sex was significant on the whole as well as among first born and last born in favour of girls.
14. Birth order was not significant on the whole; truly significant among girls only in favour of last born, and not among boys though somewhat in favour of first born.
15. There was significant interaction.

Last-born Vs. Aggregate of  
Second-born and Middle-born

(1) Social

1. Sex was not significant on the whole nor among last-born nor among second-born and middle-born.

2. Birth order was significant on the whole in favour of last-born; truly significant only among girls.
3. Interaction was not significant.

(ii) Religious

4. Sex was significant on the whole as well as among last born and also second born and middle born in favour of girls.
5. Birth order was significant on the whole in favour of second born and middle born aggregate; truly significant only among boys.
6. There was no interaction.

(iii) Educational

7. Sex was not significant on the whole; but truly significant among last-born in favour of boys, and not among second-born and middle-born though somewhat in favour of girls.
8. Birth order was also not significant on the whole; but truly significant among girls in favour of second-born and middle-born and not among boys though somewhat in favour of last-born.
9. There was a significant interaction.

(iv) Women

10. Sex was significant on the whole as well as among last born and also second-born and middle-born in favour of girls.

11. Birth order was also significant on the whole in favour of second-born and middle-born; truly significant only among girls.
12. Interaction was not significant.

(v) Fashions

13. Sex was significant on the whole as well as among last born and also second-born and middle-born in favour of girls.
14. Birth order was not significant on the whole nor among boys nor among girls.
15. There was no interaction.

Last-born Vs. Only Child

(i) Social

1. Sex was not significant on the whole; truly significant among the only born in favour of boys.
2. Birth order was significant on the whole in favour of the only born; truly significant among boys in favour of the only born, but not among girls though somewhat in favour of last-born.
3. There was significant interaction.

(ii) Religious

4. Sex was significant on the whole in favour of the girls; truly significant among last born in favour of girls, but not among the only born though somewhat in favour of boys.

5. Birth order was not significant on the whole; but truly significant among the boys in favour of the only born and also among the girls in favour of last-born.
6. There was significant interaction.

(iii) Educational

7. Sex was significant on the whole as well as among the last-born and also the only born in favour of boys.
8. Birth order was not significant on the whole; but truly significant among the boys in favour of the only born.
9. There was no interaction.

(iv) Women

10. Sex was significant on the whole as well as among the last-born and also the only born in favour of girls.
11. Birth order was significant on the whole as well as among boys and also girls in favour of the only child.
12. There was no interaction.

(v) Fashions

13. Sex was significant on the whole in favour of girls; truly significant among last-born.
14. Birth order was significant on the whole in favour of last-born; truly significant among girls in favour of last-born, and among boys though somewhat in favour of the only born.
15. There was significant interaction.

B. Family Size Comparison ( C - R Scale )

Among the First-born

(i) Social

1. Sex was significant on the whole in favour of boys;  
truly significant among F1 only.
2. Family size was significant on the whole, with a general  
systematic trend for reformist score to increase with  
the increase in family size.
3. There was no significant interaction.

(ii) Religious

4. Sex was significant on the whole in favour of girls;  
truly significant among F2, F3 and F6.
5. Family size was not significant though there was slight  
tendency for the reformist score to increase with  
increase in family size.
6. There was no interaction.

(iii) Educational

7. Sex was significant on the whole in favour of boys;  
truly significant among F1, F2 and F5.
8. Family size was significant with a general systematic  
tendency for reformist score to increase with increase  
in family size.
9. Interaction was not significant.

(iv) Women

10. Sex was significant on the whole as well as at each  
size in favour of girls.

11. Family size was also significant on the whole and in some pairs only, but with any systematic trend.
12. There was no interaction.

(v) Fashions

13. Sex was significant on the whole in favour of girls; truly significant among F4, F5 and F6 only.
14. Family size was also significant on the whole with a general tendency for reformist score to increase with increase in family size (with exception of F2 being highest).
15. There was no interaction.

Among the Second-Born

(i) Social

1. Sex was significant on the whole in favour of boys; truly significant in F4, F5 and F6, i.e. in all except F3.
2. Family size was significant on the whole as well as in most of the pairs, though not showing any systematic trend or order.
3. Interaction was also significant.

(ii) Religious

4. Sex was significant on the whole and in all family sizes from F3 to F6 except F6 in favour of girls.
5. Family size was also significant on the whole and in some pairs there was somewhat a trend for the reformist to decrease with increase in family size (from F3 to F6 except F3 being the least).

6. There was also significant interaction.

(iii) Educational

7. Sex was not significant any where.

8. Family size was significant with a systematic trend for reformist score to decrease with increase in family size from F3 to F6.

9. There was lack of significant interaction.

(iv) Women

10. Sex was significant on the whole in favour of girls; truly significant in case of F3 and F6 only.

11. Family size was also significant with a systematic trend for reformist score to decrease with increase in family size from F3 to F6.

12. There was no interaction.

(v) Fashions

13. Sex was significant on the whole and in all family sizes from F3 to F6 except in F6 in favour of girls.

14. Family size was also significant but without any systematic trend.

15. Interaction was not significant.

Among the Middle-born

(i) Social

1. Sex was significant on the whole, but truly in F4 and F5, in favour of girls.



2. Family size was also significant showing a systematic trend for reformist score to decrease with increase in family size from F4 to F6.
3. Interaction was also significant.

(ii) Religious

4. Sex was significant on the whole and in each family size from F4 to F6, in favour of girls.
5. Family size was significant on the whole and in all pairs, but without any systematic trend.
6. Interaction was also significant.

(iii) Educational

7. Sex was not significant on the whole; but truly significant in F5 in favour of girls and in F6 in favour of boys.
8. Family size was significant with a systematic trend for reformist score to increase with increase in family size from F4 to F6.
9. Interaction was significant.

(iv) Women

10. Sex was significant on the whole and truly in F5 and F6, in favour of girls.
11. Family size was significant on the whole and in most pairs, with a systematic trend for reformist score to increase with increase in family size from F4 to F6, truly on total and among girls, but boys not showing the trend.

12. There was significant interaction.

(v) Fashions

13. Sex was again significant on the whole and in each of family sizes from F4 to F6, in favour of girls.

14. Family size was also significant but without showing any systematic trend.

15. Interaction was not significant.

Among the Last-born

(i) Social

1. Sex was not significant on the whole, but truly significant only in case of F5 in favour of girls.

2. Family size was significant on the whole and in some pairs, but without any systematic trend.

3. Interaction was significant.

(ii) Religious

4. Sex was significant on the whole, and in favour of girls; truly significant in F4, F5 and F6 among the sizes from F2 to F6.

5. Family size was not found significant on the whole and in some family size pairs of boys and girls, not in any pair in total, and that too without any systematic trend.

6. Interaction was significant.

(iii) Educational

7. Sex was significant on the whole in favour of boys; truly significant only in F2, F3 and F6 out of all family sizes from F2 to F6.

8. Family size was also significant on the whole and in some pairs, showing no systematic trend.
9. Interaction was also significant.

(iv) Women

10. Sex was significant on the whole and truly in all family sizes from F2 to F6 except in F3, in favour of girls.
11. Family size was also significant on the whole and in some pairs, without any systematic trend.
12. Interaction was also significant.

(v) Fashions

13. Sex was significant on the whole and truly in all family sizes from F2 to F6, except in F4, always in favour of girls.
14. Family size was also significant on the whole and in some family size pairs of girls only, not amongst boys nor mostly on total; there was no systematic trend.
15. Interaction was not significant.

SUGGESTIONS

The attempt has been made here to study as scientifically as possible with statistical refinement the contribution of three main variables, viz. sex, birth order, and family size, to the nature and extent of development of some features of

adjustment and personality in main. Some of the limitations and difficulties in this connection have been mentioned during the discussion of results obtained. A few outstanding suggestions for further probing with better statistic controls are reiterated below.

The most striking one is the inadequacy experienced in studying the birth order position and the family size simultaneously in a factorial design as attempted herewith. Both these variables are not mutually exclusive, but often over-lapping for purpose of study. For example, there cannot be subjects for study in different birth orders at each level of family size; family size one is the same as the only born within the first-born siblings; family size two consists of first-born and second or last-born; family size three would consist of the first-born, second or middle born and the third or last-born; size four would consist of the first-born, second-born, third or middle-born and fourth or last-born for our purpose, and so on. In other words, the meaning of first-born, second-born, middle-born and last-born would not remain true to the position as such, but would have to be specified as done in the present investigation, and this birth order would have to be studied independently of the family size. It is likely that birth order and family size would together act or interact in the growth processes, and yet it is not easy to study such interaction.

In view of this the present investigator has studied first the birth order, sex and their interaction with the help of a factorial design, and then again separately family sizes, sex and their interaction at each of the birth order. Is it not possible to study all the three factors and their interactions at the same time ? No doubt, it can be made possible by more refined statistical controls and sophisticated designs and techniques, increasing a sufficiently large number of subjects in each cell or sub-group to warrant accurate inferences. But this would render the final total sample to be very huge and sometimes very cumbersome for analysis as well as practical purpose. Any way, one needs to think out in this direction for future research.

Further, even some of the aspects studied here with statistical tools need be studied more extensively with similar other tools of data collection and interpretation.

Next, this type of study needs be replicated at different places and in different types of environment. This is suggested particularly because of some of the very encouraging results obtained in the present study with reference to the role of family size, which is the burning problem of today in our over-populated country where population still goes on increasing in geometrical progression against the increase of food-stuffs at the most in arithmetical progression. If similar findings are confirmed by more studies in different areas, it would be an additional and scientific propaganda for small size of the family.

Finally, since a few variables have been studied here, a large-scale project needs be undertaken and supported by the Government as well as social welfare agencies to study systematically more of the personality variables as well as other adjustment processes and particularly most of the intellectual traits, such as intelligence, specific abilities and achievements, reading skills and interests and so on, as related to a number of other family factors, all of which have been left out in the present study for want of time due to limitations of a Ph.D. thesis. Further research in this and related area needs be encouraged.

X-X-X-X-X-X-X