

A COMPARISON OF THE PERSONALITY PROFILES
OF PARENTS AND THEIR CHILDREN.

by

THELMA TEMPLETON COULTER

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Abstract..

The purpose of this experiment was to test experimentally the degree of relationship between parents and their unmarried children over the age of 16 in respect to nine personality traits on the Minnesota Multiphasic Personality Inventory. It was hypothesized that the degree of relationship between like-sexed parent-child is significantly higher than that between cross-sexed parent-child.

In order that the hypothesis might be tested the MMPI was administered to 52 families all with a Roman Catholic religious background. All responses were scored according to the manual of directions and subjected to statistical analysis in order that differences might be demonstrated..

The results of the experiment lend support to the hypothesis, the main findings being as follows:

1. Significant correlations exist between various members of the family on the nine MMPI variables. These correlations are small but favor a theory of positive relationships between parents and their children.
2. Significant differences between like-sexed and cross-sexed parent-child combinations exist on the Mf scale. On the remaining 8 scales there is no significant difference. However, there is evident a positive general trend which indicated that sons tend to resemble their fathers and daughters to resemble their mothers. The results are not high enough to be of predictive

importance. The data are more suggestive than conclusive.

This lack of significance may be due to various factors which tend to lower intra-family correlations.

Suggestions were made for further research on other groups.

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INTRODUCTION AND STATEMENT OF THE PROBLEM.

Introduction:

There is general agreement amongst psychologists of a demonstrable resemblance between parents and children in respect to various characteristics, vis., physical traits, moral opinions, beliefs, attitudes, and intelligence level.

Pearson (28) collected measures on parent and offspring in the physical traits of stature, arm span, and forearm length. The parent-child correlations in these traits averaged about .52.

The Hartshorne, May, and Shuttleworth (10) studies on moral opinions and attitudes showed a total parent and midparent-child correlation of .55.

A large-scale study of intra-family resemblances in attitude is that of Newcomb and Svelhla (25). For parents and their children he obtained correlations of .63, .44, and .56 on the Thurstone attitude scales towards Church, War, and Communism respectively..

The relation between parents and their offspring who have grown up in the home are well established for measures of intelligence. In the most extensive of these studies, Conrad and Jones (7) obtained a parent-child correlation of .49.

The relative influence of environment and heredity has never been definitely settled, although there is an impressive accumulation of data. Heredity and environment are so inter-related and so dependent on each other that they cannot be considered apart.

Loevinger (17) has recently demonstrated that attempts to determine the proportional contribution of heredity and environment involve the assumption that their effects are additive. He points out that this is inconsistent with their interaction which precludes the application of simple arithmetic laws.

Schwesinger (32) argued that the relative contribution of heredity and environment is specific not only to the trait, but also to the individual and the particular environment, that is, under different conditions of environment, the relative contribution of heredity will differ; and under different conditions of heredity, the relative contributions of environment will differ.

In the case of family resemblance, both hereditary and environmental factors operate simultaneously to produce greater likeness within the ordinary family than is found among individuals chosen at random. Attitudes and behavioral characteristics are passed on through precept and example. The common effects of the same environment tend to increase the resemblances between parent and child. Much stress is laid on "social heredity" by Blanchard (4) who believes that "desire of approval and natural tendency to imitate, incite the child to pantomime attitudes that he sees in parents until they are woven into the habit system that controls his own behavior and have become an integrated factor of the whole personality...".

Miller and Dollard (24) also agree that imitative behavior is learned and follows the laws of learning.

In the present study it is proposed to test experimentally

the degree of relationship between parents and their children in respect to the nine personality traits on the MMPI (Minnesota Multiphasic Personality Inventory.) (12).

No effort is made to prove whether any resemblance which may exist is due to heredity or environment; it is an attempt to find the degree of relationship since any resemblance would be due to environmental factors superimposed on heredity.

Specific Purpose of the Experiment:

Specifically, the hypothesis to be tested was: That the degree of relationship between like-sexed parent-child is significantly higher than that between cross-sexed parent-child.

CHAPTER II.

REVIEW OF RELATED STUDIES.

In 1934, Hoffeditz (15) reported the results of a study to determine how much children resemble their parents and one another in personality traits. The sample consisted of 100 families, each with a father and a mother and at least two children of high-school age or over. Most families lived in a Pennsylvania city of 50,000, some few lived in small towns nearby. They are all normal in that the children when young lived with their parents. The greatest possible number of social and economic groups are represented. Three scores from the Bernreuter Personality Inventory (3) were used; neuroticism, self-sufficiency, and dominance. (Scales 1, 2, & 4). The resemblance coefficients obtained were low, ranging from .008 to .284.

Sward and Friedman (33) using the neurosis score (Scale 1) extracted from The Bernreuter Personality Inventory made a comparison of parents and their offspring in emotional attitudes. This study was part of a larger investigation of differences in temperament between Jews and Gentiles. The sample consisted of 387 young adults attending high-school and university. The Jewish parents are dominantly Russian born immigrants of long American residence and fairly superior social standing. The non-Jewish parents are North European Protestants, and by and large American born. The race samples are said to be comparable in age, I.Q., residence, and paternal occupation. Using 56 to 58 pairs results obtained were:

	<u>Jewish</u>	<u>Gentile</u>
Father-son	.29	.31
Mother-son	.16	.27
Father-daughter	.24	.05
Mother-daughter	.31	.11

They concluded that parental r 's are but faintly related to sex-alignment. If anything, children resemble more closely the parent of the same sex.

In 1943 Patterson (26) correlated the Bernreuter scores of mothers with child behavior ratings at the nursery school level (average age 4 years) using the Fels Parent-Behavior Rating Scale for the children. Bernreuter scores of mothers were also correlated with the scores on the Brown Personality Inventory (5) for a group of 28 older children, age 8-10 years. From the standpoint of education, intelligence and income the group of parents was a superior one. The resulting correlations are all low and not statistically significant.

In explaining his results, Patterson suggests that better measures of parent personality would show closer relationships or that it is not parent personality per se, but actual behavior of the parent which influences child personality.

Gjerde (8) in 1949 administered the MMPI to a population of ninth and tenth grade pupils of the Laboratory School of the University of Chicago, and their parents. The children in this group had a mean age of 14.8 years, a mean I.Q. of 138, and came from families whose fathers, in seven cases out of eight, fell in the first two groups on the Minnesota Occupational Scale.

The ranges of coefficient on the nine scales for the various parent-child relationships were as follows: Father-son, $N=83$, r 's from .07 to .31; Mother-son, $N=93$, r 's from .05 to .21; Father-daughter, $N=62$, r 's from .01 to .29; Mother-daughter, $N=80$, r 's from .01 to .27. Individual correlations on each scale are not reported.

An objection to the Gjerde study is the low age range of the children which extended over 12 years, 9 months to 16 years, 3 months. The general normal group for the standardization of the MMPI had a minimum age of 16 years. Many questions on this test are not designed for subjects aged 12 to 14 years. In the present study the ages of the children range from 16 years to 27 years which in view of the foregoing remarks is an improvement on the Gjerde study..

CHAPTER III.

EXPERIMENTAL MATERIALS, SUBJECTS AND DESIGN.

Test Materials:

The test used for this study was the Minnesota Multiphasic Personality Inventory (MMPI).. This device is a structured personality test consisting of 550 items in booklet form (See Appendix). The subject is asked to read each statement and answer whether it is true or false as applied to him. If the statement does not apply to him or if it is something that he does not know about, the subject leaves the question unanswered.

Briefly, this test yields scores on nine components of personality, viz: Hs (Hypochondriasis), D (Depression), Hy (Hysteria), Pd (Psychopathic deviate), Mf (Masculinity-femininity), Pa (Paranoia), Pt (Psychasthenia), Sc (Schizophrenia), and Ma (Hypomania). In addition there are four scores which deal with other properties of the scale, viz: question mark, (?), Lie (L), the F scale, and a suppressor score called K. (8).

The Question score consists of the total number of items put in the 'Cannot say' category; the size of this score affects the significance of the other scores. Large Question scores invalidate all others. If no more than an average of one unanswered item occurs in every block of 15 items, the Question score is considered to be 'OK'. This OK is taken to indicate a T score of 50 in the later translation from raw scores to T scores.

The L score is also a validating score that affords a measure of the degree to which the subject may be attempting

to falsify his scores by always choosing the response that places him in the most acceptable light socially. A high L score does not entirely invalidate the other scores but indicates that the true values are probably higher than those actually obtained.

The F score is not a personality scale but serves as a check on the validity of the whole record. If the F score is high, the other scales are likely to be invalid either because the subject was careless or unable to comprehend the items. A low F score is a reliable indication that the subjects responses were rational and relatively pertinent.

K acts as a suppressor variable. (8) (10) (11) (12) (13). It is essentially a correction factor which has been found to be of value in sharpening the discriminatory power of the clinical variables measured by the test. It accentuates the validity of the Hs, Pd, Pt, Sc, and Ma scales.

The manual for the MMPI contains tables giving the standard score equivalents for raw scores on each of the nine scales. Each table is accompanied by a description of its normative group and special notes.

All of the scores are expressed as T scores, the general normal sample having a mean of 50 and a S.D. of 10.

Subjects:

The subjects for this study consisted of fifty-two families all with a Roman Catholic religious background. Each family had a mother and a father living and contained at least one son and daughter over the age of 16 and unmarried. All subjects were residents of a middle-class district in the city of Vancouver, British Columbia, but nevertheless the sample included both working and middle-class according to occupation.

The mean age of the group of offspring at time of testing was 18 years, 3 months; the age range extending over 16 years, 5 months to 27 years, 4 months. The mean age of the parents was 53 years, 9 months with an age range of 40 to 64 years.

The sample employed in this study is considered to be representative of the Catholic population in the district with offspring over the age of 16 and unmarried.

The total parish contains 400 families and out of these there were 71 families who met the specifications of the sample needed for the study. For various reasons 6 out of the 71 families were unable to serve as subjects and 7 of the families had only one parent living. There were members of 6 families who had high scores on the validity, ?, or F scales and their records were discarded. This left the 52 families who formed the basis for this study.

Design:

The booklet form of the Minnesota Multiphasic Personality Inventory was administered to the subjects according to the directions in the manual. Not all of the 52 families were tested at one time, but all members of any one family were tested together to prevent any comparison and discussion of answers.

Considerable effort was made to gain the confidence and goodwill of the subjects. They were given assurance that the results would be treated in the strictest of confidence so far as they personally were concerned. The subject's identity was withheld if he did not care to reveal his name. Information was obtained on his age, sex, and occupation.

It is believed that in the vast majority of the cases the responses to the questionnaire items were conscientiously given. Over one-half of the subjects asked for an interpretation of the test.

The answer sheets were all scored using the hand scoring key. Scores were obtained for the Question score, the L score, the F score, and K, as well as for the nine traits. The 'T' scores were then determined for all raw scores.

CHAPTER IV.

THE DATA AND THEIR TREATMENT.

Statistical Procedure:

Product-moment correlations were calculated for father-son, father-daughter, mother-son, mother-daughter, father-mother and son-daughter pairs on each of the nine traits of the MMPI. These were examined for significance. (See Table I).

The Pearson and Filon coefficient between two r 's having one array in common was computed using the method given by Peters and Van Voorhis (29). This formula

$$r_{12}r_{13} = r_{23} - \frac{r_{12}r_{13}(1-r_{23}^2-r_{12}^2-r_{13}^2+2r_{12}r_{13}r_{23})}{2(1-r_{12}^2)(1-r_{13}^2)}$$

is used because the same array occurs as one factor in both the r 's. That is, in the correlation between father-son and father-daughter, the common factor is the father, and in the mother-son, mother-daughter correlation the common factor is the mother and so on. This value, $r_{12}r_{13}$ was then employed in the formula for the standard error of a difference between r 's that regards the correlation between the r 's.

$$\sigma_{r_{12}-r_{13}} = \sqrt{\sigma_{r_{12}}^2 + \sigma_{r_{13}}^2 - 2r_{12}r_{13}\sigma_{r_{12}}\sigma_{r_{13}}}$$

If the correlation between the two r 's having one array in common is disregarded and the formula for the standard error employed in the usual manner without the tail, the reliability of the difference is underestimated.

Critical ratios were computed for differences between like-sexed parent-child correlations and cross-sexed parent-child correlations on all nine MMPI variables. These data are contained in Tables II, III, IV and V. This material formed

formed the basis for an evaluation of the hypothesis.

Table VI presents the patterns of correlations within the family on each MMPI variable separately. Unfortunately at the present time there is no satisfactory statistical technique for pattern analysis. Clusters are difficult to separate by any sharp criterion from other straggling clusters. Another difficulty is the arbitrary level of mean intercorrelation by which we limit admission of variables to a cluster. Some people consider that only those variables which correlate together above $+0.8$ belong to the same cluster, whereas others would put it as low as $+0.3$. The element of subjective judgement in combining variables as well as the failure of the system to yield exact predictive equations makes it arbitrary and undependable.

Nevertheless the patterns of the correlations were tabulated in the form of a matrix in the hope that some clusters would be apparent.

Table I.. Intra-family product-moment correlations.

MMPI Variable	Father- son	Mother- daughter	Son- daughter	Mother- son	Father- daughter	Father- mother
Hypochondriasis	.38**	.22	.42**	.24	.18	.21
Depression	.46**	.41**	.37**	.36**	.26	.02
Hysteria	.31*	.38**	.38**	.19	.12	.11
Psychopathic- deviate	.33*	.26	.35*	.18	.34*	.20
Masculinity- femininity	.67**	.62**	.26	.19	.28*	.44**
Paranoia	.49**	.43**	.43**	.37**	.29*	.36**
Psychasthenia	.29*	.36**	.41**	.30*	.23	.10
Schizophrenia	.34*	.24	.31*	.19	.18	-.13
Hypomania	.43**	.49**	.39**	.30*	.24	-.32*

** Indicates correlation significant at the 1% level of confidence.

* Indicates correlation significant at the 5% level of confidence.

Table II. Critical ratios for father-son and mother-son pairs.

	F - S r_{12}	M - S r_{13}	Diff. $r_{12} - r_{13}$	F - M r_{23}	r_{12} r_{13}	σ_d r	C.R.	p.
Hs	.38	.24	+.14	.21	.165	.161	0.87	.20
D	.46	.36	+.10	.02	-.060	.168	0.60	.28
Hy	.31	.19	+.12	.11	.081	.176	0.68	.25
Pd	.33	.18	+.15	.20	.171	.166	0.90	.19
Mf	.67	.19	+.48	.44	.388	.126	3.82	.001
Pa	.49	.37	+.12	.36	.274	.136	0.88	.19
Pt	.29	.30	-.01					
Sc	.34	.19	+.15	-.13	-.161	.195	0.77	.23
Ma	.43	.30	+.13	-.32	-.367	.198	0.66	.26

Table III. Critical ratios for father-daughter and mother-daughter pairs..

	M - D	F - D	Diff.	F - M			C.R.	p..
	r_{12}	r_{13}	$r_{12} - r_{13}$	r_{23}	r_{12}	r_{13}	r_{23}	
Hs	.22	.18	+.04	.21	.191	.169	0.24	.41
D	.41	.26	+.15	.02	-.033	.176	0.85	.20
Hy	.38	.12	+.26	.11	.087	.173	1.50	.07
Pd	.26	.34	-.08					
Mf	.62	.28	+.34	.44	.364	.125	2.72	.004
Pa	.43	.29	+.14	.36	.302	.142	0.98	.17
Pt	.36	.23	+.13	.10	.059	.173	0.75	.23
Sc	.24	.18	+.06	-.13	-.151	.201	0.30	.39
Ma	.49	.24	+.25	-.32	-.363	.195	1.28	.11

Table IV.. Critical ratios for father-son and father-daughter pairs.

	F - S r ₁₂	F - D r ₁₃	Diff. r ₁₂ - r ₁₃	S - D r ₂₃	r ₁₂ r ₁₃	d _r	C.R.	p.
Hs	.38	.18	+.20	.42	.389	.142	1.41	.08
D	.46	.26	+.20	.37	.304	.142	1.40	.09
Hy	.31	.12	+.19	.38	.367	.148	1.28	.11
Pd	.33	.34	-.01					
Mf	.67	.28	+.39	.26	.171	.137	2.84	.003
Pa	.49	.29	+.20	.43	.368	.131	1.53	.07
Pt	.29	.23	+.06	.41	.396	.142	0.42	.34
Sc	.34	.18	+.16	.31	.283	.153	1.05	.15
Ma	.43	.24	+.19	.39	.344	.140	1.36	.09

Table V. Critical ratios for mother-daughter and mother-son
pairs. 17.

	M - D r_{12}	M - S r_{13}	Diff. $r_{12} - r_{13}$	F - M r_{23}	r_{12}	r_{13}	σ_{dr}	C.R.	p.
Hs	.22	.24	-.02						
D	.41	.36	+.05	.37	.324	.137		0.37	.36
Hy	.38	.19	+.19	.38	.363	.141		1.35	.09
Pd	.26	.18	+.08	.35	.323	.153		0.52	.31
Mf	.62	.19	+.43	.26	.076	.149		2.88	.002
Pa	.43	.37	+.06	.43	.358	.132		0.45	.33
Pt	.36	.30	+.06	.41	.391	.136		0.44	.33
Sc	.24	.19	+.05	.31	.287	.157		0.32	.38
Ma	.49	.30	+.19	.39	.324	.135		1.41	.08

Table VI. Patterns of correlations within the family for each
MMPI variable.

Hypochondriasis..

	F.	S.	D.	M.
F.		.38**	.18	.21
S.			.42**	.24
D.				.22

Depression.

	F.	S.	D.	M.
F.		.46**	.26	.02
S.			.37**	.36**
D.				.41**

Hysteria.

	F.	S.	D.	M.
F.		.31*	.12	.11
S.			.38**	.19
D.				.38**

F = Father

S = Son

M = Mother

D = Daughter

Table VI. (con't)

Psychopathic Deviate.

	F.	S.	D.	M.
F.		.33*	.34*	.20
S.			.35*	.18
D.				.26

Masculinity-femininity Interest.

	F.	S.	D.	M.
F.		.67**	.28*	.44**
S.			.26	.19
D.				.62**

Paranoia.

	F.	S.	D.	M.
F.		.49**	.29*	.36**
S.			.43**	.37**
D.				.43**

Psychasthenia.

	F.	S.	D.	M.
F.		.29*	.23	.10
S.			.41**	.30*
D.				.36**

Table VI: (con't.)

Schizophrenia.

	F.	S.	D.	M.
F.		.34*	.18	-.13
S.			.31*	.19
D.				.24

Hypomania.

	F.	S.	D.	M.
F.		.43**	.24	-.32*
S.			.39**	.30*
D.				.49**

** Indicates correlation significant at the 1% level of confidence.

* Indicates correlation significant at the 5% level of confidence.

Table VII. Average correlations of nine MMPI scores for blood-related pairs.*

Variable.	Mean r for blood-related pairs.	Range for blood-related pairs.	No. of sig. r's for blood-related pairs.	Father-mother.
Masculinity-femininity	.404	.19 - .67	3	.44
Paranoia	.402	.29 - .49	5	.36
Depression	.372	.26 - .46	4	.02
Hypomania	.370	.24 - .49	4	-.32
Psychasthenia	.318	.23 - .41	4	.10
Psychopathic-deviate	.292	.18 - .35	4	.20
Hypochondriasis	.288	.18 - .42	2	.21
Hysteria	.276	.12 - .38	3	.11
Schizophrenia	.252	.18 - .34	2	-.13

* The mean r's given above are for blood-related pairs only, viz: father-son, father-daughter, mother-son, mother-daughter, and son-daughter.

RESUME OF THE FINDINGS.

The intra-family correlations on the nine MMPI traits are presented in Table I.. The Wallace-Snedecor tables (9) indicated that with 50 degrees of freedom a correlation must be .273 or above to be significant at the 5% level, and .354 or above to be significant at the 1% level. Of the 54 correlations calculated 33 are significant including 21 at the 1% level.

Of interest here are the father-son correlations of which 5 of the 9 are significant at the 1% level, the remaining four being significant at the 5% level. Of the mother-daughter correlations, six are significant at the 1% level, the remaining three not being significant. From this it would appear that the father-son relationship is more pronounced than the mother-daughter relationship..

Both the father-son and mother-daughter correlations on the Mf scale were comparatively high, being .67 and .62 respectively. Thus on this one scale there appears to be a demonstrated relationship between parents and their like-sexed children.

The correlations between mother-son and father-daughter are all low. Two of the mother-son correlations are significant at the 1% level and two at the 5%. Of the father-daughter correlations three are significant at the 5% level and none at the 1% level. From this it would appear that sons tend to resemble their mothers slightly more than for daughters to resemble their fathers.

Table II, III, IV and V present the details of the comparison of-like-sexed parent-child correlations with cross-sexed

parent-child correlations on the nine MMPI variables.

The probability of each Critical Ratio is given according to the "one-tail hypothesis" that like-sexed parent-child correlations are greater than cross-sexed parent-child correlations.

On examining Table II we find that the critical ratio of the difference between father-son and mother-son pairs on the Mf scale is significant at the .001 level of confidence. The remaining 8 variables are not significant statistically, all falling below the required level as will be seen by the probability column headed "p".

Table III presents the Critical Ratios between father-daughter and mother-daughter pairs. The results are similar to those in Table II. The critical ratios are all low and not statistically significant with the exception of the Mf variable which is significant at the .004 level of confidence,

Tables IV and V present the critical ratios for father-son, father-daughter pairs, and mother-son, mother-daughter pairs respectively. The results here remain substantially unchanged from those in Tables II and III. There is a significant difference between like-sexed and cross-sexed parent-child pairs on the Mf scale, with the remaining 8 variables showing no significant differences.

It is evident from Tables II, III, IV and V that the four parent-child relationships do not vary greatly. The only consistent trend is on the Mf scale. On this variable sons tend to resemble their fathers and daughters to resemble their mothers. This would normally be expected as masculinity-femininity of interest pattern is a significant issue for males and

females..

Table VI presents the patterns of correlations within the family on the nine MMPI variables. It can be said at once that there does not appear to be any consistent intra-family pattern according to these data. No pattern occurred frequently enough to permit analysis. There is some similarity between the matrices for Hypochondriasis, Depression, Hysteria and Psychasthenia, but since this is very slight and in the absence of any overall consistency it would be unwise to draw any conclusions..

Table VII presents the averages of the intra-family correlations on the nine MMPI variables. Here we are viewing the total pattern of the MMPI profile instead of considering the scales separately. This gives a more satisfactory picture of the entire distribution of the correlations between the various combinations of blood-related pairs. It also allows us to order the traits for the degree of intra-family similarity they show.

The averaging of r 's is a dubious and often an incorrect procedure. But since the r 's for blood-related pairs do not differ greatly in size and the signs are all positive, the distortion probably is not exceedingly large.

This summary is given to obtain a generalized picture of the relationship on a high global level. This "average correlation" should be viewed only as suggestive.

It will be noted that the average correlations are generally of a very low order, ranging from .252 to .404. It is evident that the relationship found is small, though almost certainly

it does exist. Most intra-family resemblance is found on the Mf trait, with the least resemblance on the Schizophrenia trait. The relationships appear smaller than those generally found between families for mental and physical traits and various social attitudes.

CHAPTER V.

DISCUSSION OF RESULTS.

From the resume of the findings, it appears that relationships on personality resemblance within the family are positive but low, usually considerably lower than the parent-child correlation of about .50 which is frequently cited for intelligence, physical traits and social attitudes..

The intra-family correlations in Table I on the whole are quite low, although the correlations between the various parent-child groups are all positive.

It would seem that the relationship between parents and their children is not a specific one, but rather general in nature.

It is observed that the highest correlations are between father and son, and the second highest between mother and daughter.. The greater similarity of father and son is perhaps due to the cultural factor that in our society a small boy is usually exhorted to pattern his acts, attitudes and perspectives after those of his father. The same is true for girls towards their mothers but to a lesser degree.

Another explanation might be that girls instead of emulating their mothers, attempt a sort of compensation by reacting in opposition to their mothers. If so, negative correlations would be expected between mothers and their daughters. However, this is not the case. All correlations of mothers and daughters on the 9 scales, although small, were positive. Apparently the opposing tendencies are not between particular mothers and their daughters, but between the group tendencies of adult and adolescent females..

The correlations between father and mother tend to be low and sometimes negative. These correlations are influenced by factors other than intra-family relationships, such as the factors which make for selection of marriage partners..

Gjerde (8) presents product-moment correlations for parents and their children using the nine scales on the MMPI. His results are similar to the results on this study but the intra-family correlations are somewhat lower. This may be due to a factor already pointed out in the related studies, that the age range of the children in the Gjerde sample was 12 to 16 years.. Many questions on the MMPI are not designed for subjects aged 12 to 14 years. The general normal group for the standardization of the MMPI had a minimum age of 16 years..

Another possibility is that correlations on the present study are higher because the parents and their children may have similar personality tendencies because of cultural influences. It was pointed out in Chapter III that the subjects were members of a highly select group with respect to religious background.

Tables II, III, IV and V present the data relative to the hypothesis that the degree of relationship between like-sexed parent-child is significantly higher than that between cross-sexed parent-child. From the tables we see that only on the Mf trait was a significant difference found. The critical ratios on the remaining 8 variables are low and not statistically significant. There was no demonstrated relationship on the "neurotic triad". (Hypochondriasis, Depression and Hysteria). However one would not expect a correlation between parents and their children on the Hs scale, since age shows a positive

correlation with hypochondriasis.

The psychiatric syndromes in the MMPI are enormously complex and overlap to such an extent that a discussion of individual scales is not possible.

It must be pointed out that the high significant differences on the Mf variable between like-sexed and cross-sexed parent-child pairs may be a chance difference rather than a real difference due to the scoring on this variable. Females obtain a lower T score, and males obtain a high T score by having a high raw score.

However, since the difference between like-sexed and cross-sexed pairs is very significant it may be that on the Mf scale sons do tend to resemble their fathers and girls to resemble their mothers. Gjerde (8) found a higher correlation between father-son and mother-daughter pairs on this same variable. Further evidence was obtained by Smith (32A) in a study of masculinity-femininity traits of a group of sorority girls. He found a tendency for the more decidedly feminine girls to have more feminine mothers and more masculine fathers, though correlations were of a low order. (from .24 to .33)

Judging from Tables II, III, IV and V one can only say that the relationship is not high enough to give any confidence in attempting to predict for individual cases. It seems practically certain, however, that a positive relation existed between the children studied here and their parents as far as their personality traits on the MMPI were concerned. That this relationship was not a large one has been mentioned several times.

Very little has been said in this discussion about any

single MMPI variable. The inventory was used to get an over- 29.
all view of personality regardless of what the scales are measuring in order that the hypothesis could be examined. It is well known that the scales cannot be used for clinical diagnosis as they are of doubtful validity, although the test as a whole is considered to be one of the better paper and pencil measures of overall personality. We can with profit examine the Mf scale a little more closely, as it showed the highest intra-family correlations and was the only single scale to show significant positive differences between like-sexed and cross-sexed parental-sibs.

The Mf scale is usually called the Masculinity-femininity scale as though it measured masculinity in the clinical sense. But in the MMPI manual, it is called the Interest scale and is said to measure the tendency towards masculinity or femininity of interest pattern. The writer knows of no study which has convincingly shown that male homosexuals obtain higher scores than normal males.

If the scale did measure masculinity-femininity in the clinical sense, the .44 mother-father correlation would be most surprising. But this is not so if we regard it as a measure of interest, as we would expect husbands and wives to have similar interests. The significant difference between like-sexed and cross-sexed parental-sibs is also consistent with this interpretation.

The lack of statistical significance of the difference between like-sexed and cross-sexed parent-child pairs requires some discussion. It may now be asked which factors would

contribute in lowering the resemblance between parents and their like-sexed children. One factor is the increased physical separation of parent and child as the child grows older with a shift of the educational responsibility from the home to the school, and a further shift of social training to gangs, clubs and other outside organizations.

Factors such as intelligence, the number of siblings in the home, maladjusted siblings, the size of the family, ordinal position, intra-sibling and parental-sibling relationships, and peer-group relationships, all influence personality development. It is recognized that these variables are by no means uncorrelated and may interfere with, or cut across, this tendency toward intra-family similarity.

The problem of the family is vast in scope, and it can be studied in many ways. But the essential indefiniteness of the quantities to be measured make the study of family life and personality development difficult. Encouraging as is the development of increasingly accurate quantitative studies of family life, the complexities of the phenomena studied necessarily imply that statistical techniques are limited when applied to forces or processes of interaction which are frequently essentially qualitative. From the outset one is conscious of the intricacies of family life, some of which defy analysis, some of which when analysed or isolated, cease to have the same significance as single threads, as they had when interwoven in family patterns.

Many personality characteristics which can be detected by observation and ratings cannot be appraised adequately with the present tests available, although they show a degree of intra-family resemblance. Also, many aspects of personality

in which children resemble their parents are not suitable for adaptation to tests.

However, the results indicate that it is clearly desirable that further research be carried out on the problem of the family since no individual exists 'in vacuo', for he is a member of society, and the family influences society through the individual in so far as it influences his whole attitude to life..

CHAPTER VIII.

SUMMARY AND CONCLUSIONS.

The purpose of this experiment was to test experimentally the degree of relationship between parents and their unmarried children over the age of 16 in respect to the nine personality traits on the MMPI. The intent has not been to establish causal relations beyond those which can be hypothesized from the relationships as they are discovered to exist.

It was hypothesized that the degree of relationship between like-sexed parent-child is significantly higher than that between cross-sexed parent-child.

In order to test the hypothesis the MMPI was administered to 52 families all with a Roman Catholic religious background. All responses were scored according to the manual of directions and subjected to statistical analysis in order that differences might be demonstrated.

The results of the experiment only partially support the hypothesis, the main findings being as follows:

1. Significant correlations do exist between members of the family. The correlations on the whole, although positive, are small, suggesting either that the factors studied were only slightly related, or that measurement methods were relatively unreliable.
2. A significant difference between like-sexed and cross-sexed parent-child pairs was found on the Mf scale. The remaining 8 variables showed no significant differences. There is a possible relationship, though the relationship is so small as to be merely suggestive.

3.. The girls and parents seemed less in agreement than did the boys and their parents.

It was recognized that many variables were operating to reduce the similarity between parents and their children. Therefore, although it was possible by the application of statistical techniques to consider the resemblances between father-son and mother-daughter, other factors such as educational influence, social clubs, peers, size of family, number and ordinal position of siblings cut across the family pattern and obscure the picture. Keeping these factors in mind it is realized that of all the influence on the development of children's personalities, those exercised by the parents are of paramount importance.

It must be remembered that measuring techniques in the areas of personality are less reliable than those in areas of intelligence and physical traits, and that improved measuring devices, when employed in future parent-child studies may reveal more significant relationships.

It would be incorrect to generalize from this population to people generally. Conclusions are restricted to the Catholic population.

CHAPTER VIII.

FURTHER SUGGESTED STUDIES.

The conclusions of the present study, although they must be considered as tentative, indicate a strong enough positive trend to warrant further research being done on the problem of parent-child similarities.

It is suggested, therefore, that the experiment be repeated using a Protestant population and a larger number of subjects. This experiment might also be repeated using a projective test instead of an objective one.

An extension of the present study into a longitudinal one would also give further knowledge related to parent-child resemblances, particularly in terms of their course of development. Thus, it would be possible to determine whether children tend to increase or decrease in resemblance to their parents as they mature.

This might also be extended to the relative relationship between parents and true and foster children which would conceivably add to the total picture.

It is further suggested that a study be done using families which are not intact, where either parent is missing, to ascertain the degree of resemblance between the children and the existing parent.

Another interesting study would be the comparison of the personality profiles of only children and their parents.

A more ambitious study could be carried out comparing fraternal and identical twins with their parents with a view to finding out the relative contribution of environment and heredity.

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