

AN INVESTIGATION OF THE RELATIONSHIP BETWEEN
MASCULINITY-FEMININITY SCORES AND INTEREST SCORES

by

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B.A., University of British Columbia, 1956

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

Master of Arts

in the Department
of
Philosophy and Psychology

We accept this thesis as conforming to the
required standard

THE UNIVERSITY OF BRITISH COLUMBIA

April, 1958

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Abstract

The purpose of this research was to investigate the relationship between masculinity-femininity scores on the Terman-Miles Attitude Interest Analysis Test and interest scores on certain subtests of the Kuder Preference Record. Masculinity-femininity was defined as the degree of similarity of the individual's responses to the responses characteristic of men or of women, respectively, of our culture. Interest was defined as the readiness of an individual to engage in some activity.

The major purpose of this study was to determine whether members of opposite sexes having similar personality characteristics in relation to masculinity-femininity were closer in interest scores than were members of the same sex having opposite personality characteristics in relation to masculinity-femininity. Four groups of deviates on the masculinity-femininity dimension were selected from a large group of male and female volunteer undergraduates of the University of British Columbia. These four groups were then given the Kuder Preference Record, and six subtests, selected because of their proven ability to discriminate between the sexes, were scored. Statistical analysis showed that the hypothesized relationship did exist in two vocational areas and did not exist in the remaining two vocational areas and two personal areas.

The second purpose of this study was to investigate the statement that amount of education is positively correlated with degree of masculinity for both sexes throughout life. A large group of male and female volunteer, white-collar, high-school graduates, none of whom had attended university, was given the Terman-Miles test. A comparison of the scores of these non-university males with the scores of the university males showed that the latter group was significantly more masculine. No significant difference was found in the case of the female non-university and university groups.

It was concluded first, that interests, as measured by the Kuder Preference Record, are not as closely related to masculinity-femininity, as measured by the Terman-Miles test, as common-sense judgments of the situation would indicate: and second, that the positive relationship between degree of masculinity and amount of education may exist in the male population, but possibly not in the female population, in our culture.

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ACKNOWLEDGEMENT

The writer wishes to express her thanks to her advisor, Dr. E. I. Signori, for his valuable assistance in this study and for his generous contribution of time to it. The writer also wishes to express her appreciation to the Department of Philosophy and Psychology for its helpful provision of facilities and materials.

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CHAPTER I

GENERAL STATEMENT OF THE PROBLEM

Since World War I many factors have operated to make people less conscious of the differences that have long been supposed to separate the sexes. Women have invaded fields of action formerly reserved for men and the results have shown that sex differences in practical abilities are either non-existent or are not significant (36). The use of psychometric methods has proven the essential equality of the sexes in the major aspects of intellect (2); tests of special abilities, such as musical ability, have also demonstrated this equality (2).

In contrast to this growing tendency to concede equality or near equality with respect to general intelligence and to the majority of special abilities, the belief persists that fundamental differences do exist in the emotional equipment of the sexes, and in the interests, attitudes, and modes of behavior which are the derivatives of such equipment. The term "masculinity-femininity" is often used to describe this general area. For the purposes of this investigation, masculinity-femininity is defined as the degree of similarity of the individual's responses to the responses characteristic of men or of women, respectively, of our culture.

Standardized testing has been the chief technique for determining the degree of masculinity-femininity. Ratings have not proved very satisfactory, and clinical investigation through interview has not often been reported. The development of tests reflecting different levels of masculinity-femininity organization has paved the way

for many different directions of experimental investigation in this complex area. One line of development has been the identification of deviates, i.e. the effeminate men and the masculine women, on the masculinity-femininity dimension and the assessment of their interests, attitudes, and modes of behavior.

The main purpose of the present investigation was to study the basic interest patterns of four groups of deviates on the masculinity-femininity dimension, namely, extremely masculine men, extremely feminine men, extremely masculine women, and extremely feminine women. These four groups were selected, from a large group of male and female university students, on the basis of their performance on a masculinity-femininity test. These four groups were then tested with an interest scale to determine the relationship between masculinity-femininity scores and interest scores.

In connection with the masculinity-femininity factor Terman and Miles (36) stated that amount of education is positively correlated with degree of masculinity, as revealed on their test (36), for both sexes throughout life. The second purpose of this investigation was to determine whether this statement was supported when samples of non-university men and women were compared, on the basis of masculinity-femininity scores, with the university students used in this study.

More explicitly, the specific hypotheses to be investigated can be stated as follows:

1. That members of opposite sexes having similar personality characteristics in relation to masculinity-femininity are closer in interest scores than are members of the same sex having opposite

personality characteristics in relation to masculinity-femininity.

2. That the average masculinity-femininity score is higher (i.e. more masculine) among groups of college men and women than it is among groups of men and women who have not proceeded beyond high school.

Review of related research

Research related to the two main areas of concern in this investigation, i.e. masculinity-femininity and interests, will be reviewed in that order, respectively.

Masculinity-femininity Masculinity-femininity as used here refers to the similarity of responses of a group to those responses typical of men or of women.

The measurement of masculinity-femininity has been approached in a variety of ways. Some investigators have based their estimates of masculinity-femininity largely upon external factors such as body build, features, dress, voice, and mannerisms. Other investigators have given more weight to those aspects of personality which manifest themselves in interests, attitudes, and thought trends (36, p. 3). The investigations of this latter group have been aided by the development of tests reflecting different levels of masculinity-femininity organization.

One line of test development has made use of drawings of one type or another. Franck and Rosen (13) devised a drawing completion test which successfully differentiated university men and women. Thirty-six incomplete drawings consisting of a few simple lines were completed by the Ss. The Draw-A-Person Test is another drawing task believed to reflect sex differences (2). Reed (28) reports a study by

Levy of 5000 adults, 87% of which drew their own sex. A number of studies with this test have yielded contradictory findings (22, 24, 32), but Reed feels that the test's full potential is by no means exhausted.

A second line of development has been the construction of verbal inventory measures which are thought to reflect the masculinity-femininity aspect of personality organization. Prominent among these are the MMPI Masculinity-femininity Scale and the Strong M-F Scale. "Both of these scales purport to show the degree of similarity of the individual's interests to the interests characteristic of men or of women respectively" (2, p.569). However, the Terman-Miles Attitude-Interest Analysis Test (36) represents the most extensive attempt to construct a measure of masculinity-femininity.

The development of the Terman-Miles test began with an exhaustive search of the psychological literature for types of test content which yielded the most pronounced sex differences. The preliminary sets of items prepared on this basis were then administered to hundreds of people ranging in age from early adolescence to old age. The principal criterion for item selection was the relative proportion of men and women giving each response. Items which yielded significant sex differences were retained, while those which failed to discriminate between men and women were discarded (2, p.593). The final test was prepared in two equivalent forms, each consisting of the following seven subtests: Word Association, Inkblot Association, Information, Emotional and Ethical Attitudes, Interests, Opinions, and Introvertive Response. In scoring the test, "masculine" responses are arbitrarily given a weight of +1 and "feminine"

responses a weight of -1. The score is the algebraic sum of the weights attached to the response alternatives chosen by the S. The major emphasis is placed upon the total M-F score on the entire test. The total scores range from -200 to +200; the general-population average for males is +52 and for females -70 (36).

The Terman-Miles test has been subjected to a variety of research investigations. Two of the major research areas will be discussed here. The first of these involves the determination of specific aspects of masculinity-femininity as revealed by a factor analysis.

Ford and Tyler (12) found that for boys the first factor was an emotional characteristic which they named "Toughness" or "Insensitivity", i.e. not easily moved to anger, disgust, or pity. For girls the first factor was labelled "Sensitivity", i.e. responses involved were in the direction of arousal of the emotions. The second factor for both sexes was one of interest.

The results of Oden's study (27) supported those of Ford and Tyler. For both sexes, Oden identified two dimensions, emotional characteristics and interests. As a possible third dimension for females, he suggested one concerning the acceptance of a feminine social role.

Shepler (31) compared the Terman-Miles test with three other well-known masculinity-femininity scales, the Franck Completion Test, the MMPI M-f scale, and the Strong M-F scale. Nonsignificant correlations between the Terman-Miles test and the other scales showed that the Terman-Miles test probably measures different aspects of masculinity-femininity than those aspects measured by the other three scales.

Similar results were obtained by de Cillis and Orbison (10) in a study comparing the performance of undergraduate students on the Terman-Miles test and the MMPI M-f Scale. Both tests clearly differentiated between the sexes but did not correlate very highly with each other.

The fact that masculinity-femininity is not a unitary trait necessitates further investigations in order to determine what aspects of masculinity-femininity the various tests are measuring.

A second aspect of the Terman-Miles test which has been evaluated extensively is the degree of correlation between M-F scores and a number of other characteristics.

Extensive data have been gathered on the relation of M-F scores to many other factors, including physical characteristics and such environmental conditions as education, occupation, parent-child relationships, number and sex of siblings, and sex of teachers (36).

The relationship which Terman and Miles established between M-F scores and amount of education led them to conclude that "For both sexes, college training has a significantly more masculinizing influence than high-school or grade-school education. We do not know whether or to what extent selection may be responsible for these effects" (36, p. 144). The chief evidence for this conclusion is contained in a comparison of the means at given ages for groups of varying amounts of education. In the male population the order from greatest to least masculinity shows first the college group, then the high-school group, and last the grade-school group. In the female populations the differences between the educational groups are generally smaller than for the men, but they are as persistent

and tend in the same direction (36, p. 146).

The above general conclusion has not been verified by Cawley (7) however. She found that more masculine girls tend to go to work after high-school while more feminine girls go to college. Over the two year period studied, both groups displayed a trend toward greater femininity.

Interests As used here "interest", or more properly, "level of interest" refers to the desire or readiness of an individual to engage in some activity. The level or degree of interest directly parallels the degree of attraction which the activity holds. Thus, a person is interested to the extent that he likes to do something and interests have degrees of intensity paralleling the degrees of liking or disliking which the individual attaches to the performance of the activity in question (33).

Methods for the evaluation of interests are quite varied. Remmers and Gage (29) describe the following:

1. Individual introspection regarding pleasant and unpleasant experiences.
2. Observation of the individual by another person who evaluates signs of pleasure and displeasure in regard to activities.
3. Observation of the individual in experimental situations designed for the purpose.
4. Paper and pencil testing devices of two main types:
 - a. Those based on an assumed relationship between interest and amount of information or degree of ability.
 - b. Those based on direct comparisons or expressions of preference.

The most practical method appears to be the use of the paper and pencil test based on a direct comparison of activities. The most widely used of such instruments now available are the Strong Vocational Interest Blank and the Kuder Preference Record (33). The major purpose of the Strong test is to indicate relative interest in a number of specific occupations. The subject responds in terms of a three-point scale, Like-Indifferent-Dislike. The responses are scored according to a number of occupational scales, each being characteristic of a different occupational group. The scale for each group was obtained by weighting each response (Like-Indifferent-Dislike) according to the difference between the proportion of the occupational group making the response and the proportion of a men-in general group making the same response.

Developed more recently than the Strong test, the Kuder Preference Record followed a different approach in the selection and scoring of items. Its major purpose is to indicate relative interest in a small number of broad areas, rather than in specific occupations. The items are arranged in groups of three. The subject chooses the most and the least liked item in each triad. The individual items are grouped into general interest areas for scoring and the raw scores indicate the number of preferences expressed for each area.

The Vocational form of the Kuder provides ten interest scales: Outdoor, Mechanical, Computational, Scientific, Persuasive, Artistic, Literary, Musical, Social Service, and Clerical. The Personal form is designed to show degree of preference for the following kinds of personal and social activities: Group Activity,

Stable Situations, Dealing with Ideas, Avoiding Conflict, and Directing Others.

Separate sex norms are provided for high-school and adult groups and scores in each interest area are plotted on a normal percentile chart. Efforts have been made to develop equations for finding total scores for specific occupations or other criterion groups. These equations have been derived for a very small number of occupational groups. In the 1946 manual (20) Kuder presents equations for obtaining masculinity-femininity scores by assigning weights to the scores on each scale. High scores represent masculine preferences and low scores, feminine preferences. Kuder indicates that more information concerning the use of the Masculinity-Femininity Equation will be appearing in the literature. However, only one investigator, Kohn (18), has reported on the Kuder Preference Record Masculinity-Femininity Scale in the 12 year period following its introduction. Nor does Kuder in the 1956 edition of his manual (21) mention such a scale.

In the 1946 manual (20) Kuder stated that "Norms for college students are being developed although there is some question as to the value of general college norms in view of the fairly wide variation in average scores among groups from different colleges." Kuder apparently decided against the value of such norms because in the 1956 edition of the manual (21) no college norms are provided, nor are there apparently any college students in the norm group of 1296 men representative of the major occupations in the general population.

However, a number of investigators have felt it worthwhile to

develop norms for specific college groups. Fjeld (11) established norms for 292 college women who scored markedly higher than the general female population on scales A, C, and E of the Personal scale, but lower on scale D. She also found significant differences in the means for three major subject groups studied and suggested the desirability of developing a profile for each type of group. Bourdo (5) lists norms for forestry students. Healy and Borg (17) compared interests of nurses and nursing students and developed norms for them. Tyler (39) reported norms for several hundred student veterans.

Data on sex differences in interests and attitudes are available from a wide variety of studies (26, 28, 35, 41). Fairly clear-cut and consistent male and female interest patterns have emerged from these varied studies (2). Such data, although limited in their application, are not without value. It is of considerable practical interest to ascertain the typical behavioral characteristics of men and women, whatever may be the origin of the differences. In many fields of activity, definite assumptions are made in regard to existing sex differences in aptitudes, interests, emotional responses, and similar traits. Regardless of whether such differences are the indirect result of structural dissimilarities or whether they have an exclusively cultural or environmental origin, they cannot be ignored in the practical adjustments of everyday life.

CHAPTER II

METHOD

Procedure.- Four groups of subjects (Ss) were formed on the basis of performance on a masculinity-femininity test. The interests of these groups were then assessed by means of an interest test and intergroup comparisons between masculinity-femininity scores were made. Two other groups of Ss were also tested on the masculinity-femininity scale and comparisons were made between their performance and the performance of the first four groups of Ss on the masculinity-femininity scale.

The Terman-Miles Attitude-Interest Analysis Test (Form A) was administered to all Ss. On the basis of their raw M-F scores 100 Ss were selected from the 400 university Ss and were placed in the following groups:

Group A - The 25 male Ss obtaining the highest masculinity scores.

Group B - The 25 male Ss obtaining the lowest masculinity scores.

Group C - The 25 female Ss obtaining the lowest femininity scores.

Group D - The 25 female Ss obtaining the highest femininity scores.

The remaining 300 Ss in the university group were excluded from further consideration in the investigation. On the basis of sex the 200 non-university Ss were placed in the following groups:

Group E - The 100 male non-university Ss.

Group F - The 100 female non-university Ss.

The mean raw score of the 200 university male Ss was compared with the mean raw score of the 100 non-university male Ss. A similar

comparison was made between the two groups of female Ss.

The Kuder Preference Record (Forms CH and AH) was administered to Groups A, B, C, and D. The scores obtained on four CH subtests (Outdoor, Mechanical, Scientific, and Clerical) and two AH subtests (Avoiding Conflict and Directing Others) were analyzed in terms of the performances of each of the four university groups on each of the six subtests selected for use in this investigation.

The mean raw scores of each group were compared on each of the six subtests to determine the relationship between interest level and masculinity-femininity level (as indicated by group placement).

The order of the mean raw scores of the four groups was determined as the basis for accepting or rejecting the first hypothesis, i.e. that members of opposite sexes having similar personality characteristics in relation to masculinity-femininity are closer in interest scores than are members of the same sex having opposite personality characteristics in relation to masculinity-femininity.

The significance of the difference between the mean raw scores which were pertinent to the purposes of this study were obtained.

Subjects.— Two hundred male and 200 female undergraduate students of the University of British Columbia volunteered for the initial testing period for the selection of university Ss. The mean age of these Ss was 21.92 with a S.D. of 3.11 (Range = 37 - 18). Table 1 shows the means and S.D.'s of the ages of Groups A, B, C, and D.

One hundred male and 100 female white-collar workers volunteered for the initial testing period for the non-university Ss. These Ss were insurance and sales office employees.

TABLE 1
MEANS AND S.D.'S OF THE AGES OF
GROUPS A, B, C, AND D

GROUP	MEAN	S.D.
A	22.04	3.01
B	21.89	2.92
C	22.01	2.98
D	21.74	2.95

The mean age of these Ss was 22.46 with a S.D. of 3.67 (Range = 33 - 19). A comparison of differences in age between university and non-university groups is shown in Table 2 . All Ss in the non-university group were high-school graduates who had been employed in Vancouver business offices for periods ranging from a minimum of one year to a maximum of five years. No S in this group had attended university.

All Ss were naive with respect to the purpose of the investigation. No S had had any previous experience with the test materials used. The numbers of male and female Ss participating were equal throughout the investigation.

Materials.- The Terman-Miles Attitude-Interest Analysis Test Form A was administered to all Ss in the initial testing period. Form A consists of seven subtests: Word Association, Inkblot Association, Information, Emotional and Ethical Attitudes, Interests, Opinions, and Introvertive Response.

The Kuder Preference Record (Forms CH and AH) was administered to 100Ss from the university group. Form CH Vocational consists of ten interest scales: Outdoor, Mechanical, Computational, Scientific, Persuasive, Artistic, Literary, Musical, Social Service, and Clerical. The entire record was administered but four of the ten scales were scored (Outdoor, Mechanical, Scientific, and Clerical) because these four showed the greatest degree of sex differentiation (21). For the same reason, two (Avoiding Conflict and Directing Others) of the Form AH Personal scales were scored, the remaining three scales (Group Activity, Stable Situations, and Dealing with Ideas) being administered but not scored.

TABLE 2
AGE COMPARISONS BETWEEN COLLEGE AND
NON-COLLEGE GROUPS

GROUP	MEAN	S.D.	t-SCORE
A and B	21.96	2.98	.88*
E	22.43	3.15	
C and D	21.87	2.97	1.19*
F	22.49	3.18	

* Not significant at the .05 level of confidence which is customarily used in this type of study.

CHAPTER III

THE RESULTS AND THEIR STATISTICAL TREATMENT

Four unisexual groups of 25 Ss each were formed on the basis of the M-F scores obtained by these Ss on Form A of the Terman-Miles test. Intergroup comparisons were shown to be significantly different in the cases pertinent to this investigation. The ranges, means, standard deviations, and t-values of these M-F scores of the four groups are reported in Table 3 .

On the Kuder Preference Record Outdoor subtest, the mean raw scores for Groups A and C were closer on the M-F continuum than the mean raw scores for Groups A and B (See Table 4). Conversely, the mean raw scores for Groups D and B were closer than the mean raw scores for Groups D and C. A similar order of mean raw scores occurred in the case of the Scientific subtest (See Table 5).

On the Mechanical (See Table 6), Avoiding Conflict (See Table 7), and Directing Others (See Table 8) subtests, the mean raw scores fell in A, B, C, D order. On the Clerical subtest (See Table 9), the mean raw scores fell in C, D, A, B order.

Comparisons were made between Groups A and B, A and C, C and D, and C and B. Significant differences were shown for the four pairs on all the subtests with the exception of the comparison between Groups C and D on the Clerical Scale. The ranges, means, standard deviations, percentiles, and t-values for the interest scores of these four groups are shown in Tables 4 to 9 .

The male university Ss were shown to have significantly more masculine scores than the non-university males, but the difference

TABLE 3
PERFORMANCE DATA OF GROUPS A, B, C, AND D ON THE
M-F TEST

GROUP	RANGE	MEAN	S.D.	t-SCORE
A	120 to 95	104.44	7.92	20.51*
B	44 to -14	24.64	17.43	
C	7 to -42	-21.94	14.88	21.85*
D	-85 to -107	-92.32	5.70	

* Significant at the .05 level of confidence

TABLE 4
PERFORMANCE DATA OF GROUPS A, B, C, AND D ON THE
KPR SUBTEST - OUTDOOR

GROUP	RANGE	MEAN	S.D.	P**	t-SCORE
A	72-45	58.0	7.23	82	A-B 8.24*
B	54-30	43.0	5.28	49	B-C 2.17*
C	60-39	47.0	7.26	85	C-A 5.73*
D	35-17	26.0	4.98	29	D-C 11.66*

** Based on the 1954 KPR norms

* Significant at the .05 level of confidence

TABLE 5
PERFORMANCE DATA OF GROUPS A, B, C, AND D ON THE
KPR SUBTEST - SCIENTIFIC

GROUP	RANGE	MEAN	S.D.	P**	t-SCORE
A	58-45	52.0	3.76	85	A-C 7.82*
B	44-29	38.0	3.81	44	B-A 12.17*
C	51-35	43.0	4.24	81	C-B 4.31*
D	34-19	25.0	4.44	23	D-C 14.40*

** Based on the 1954 KPR norms

* Significant at the .05 level of confidence

TABLE 6
PERFORMANCE DATA OF GROUPS A, B, C, AND D ON THE
KPR SUBTEST - MECHANICAL

GROUP	RANGE	MEAN	S.D.	P**	t-SCORE
A	65-52	59.0	3.33	89	A-C 14.28*
B	53-31	47.0	6.32	63	B-A 8.27*
C	51-29	39.0	6.01	85	C-B 4.52*
D	29-13	20.0	4.73	32	D-C 12.17*

**Based on the 1954 KPR norms

Significant at the .05 level of confidence

TABLE 7
PERFORMANCE DATA OF GROUPS A, B, C, AND D ON THE
KPR SUBTEST - AVOIDING CONFLICT

GROUP	RANGE	MEAN	S.D.	P**	t-SCORE
A	53-30	41.0	5.02	59	A-C 9.45*
B	49-31	48.0	4.81	84	B-A 7.80*
C	64-45	58.0	5.34	63	C-B 8.28*
D	65-54	62.0	2.94	85	D-C 7.32*

** Based on the 1954 KPR norms

* Significant at the .05 level of confidence

TABLE 8
PERFORMANCE DATA OF GROUPS A, B, C, AND D ON THE
KPR SUBTEST - DIRECTING OTHERS

GROUP	RANGE	MEAN	S.D.	P**	t-SCORE
A	59-32	51.0	6.21	76	A-C 8.04*
B	49-34	40.0	3.92	43	B-A 7.38*
C	48-25	37.0	5.93	65	C-B 2.08*
D	37-22	28.0	3.65	36	D-C 6.38*

** Based on the 1954 KPR norms

* Significant at the .05 level of confidence

TABLE 9
PERFORMANCE DATA OF GROUPS A, B, C, AND D ON THE
KPR SUBTEST - CLERICAL

GROUP	RANGE	MEAN	S.D.	P**	t-SCORE
A	61-45	53.0	4.86	72	A-C 10.00*
B	59-43	49.0	4.92	62	B-A 2.86*
C	73-56	67.0	4.87	74	C-B 12.86*
D	70-50	65.0	6.48	69	D-C 1.21

** Based on the 1954 KPR norms

* Significant at the .05 level of confidence

between the female groups was not significant. The ranges, means, standard deviations, and t-values for these M-F scores are shown in Table 10.

TABLE 10

ANALYSIS OF M-F SCORES OF UNIVERSITY MEN (N=200), NON-
UNIVERSITY MEN (N=100), UNIVERSITY WOMEN (N=200), AND
NON-UNIVERSITY WOMEN (N=100)

GROUP	MEAN	RANGE	S.D.	t-SCORE
UNIVERSITY MEN	71.32	120 to -14	41.18	2.07*
NON-UNIVERSITY MEN	61.15	119 to -21	39.46	
UNIVERSITY WOMEN	-59.13	7 to -107	32.67	.82
NON-UNIVERSITY WOMEN	-62.74	9 to -134	36.98	

* Significant at the .05 level of confidence

CHAPTER IV

DISCUSSION

The results of this study support certain statements made by Terman and Miles (36), namely, that their test makes significant inter-sex and intra-sex discriminations.

The first hypothesis in this investigation stated that members of opposite sexes having similar personality characteristics in relation to M-F would be closer in interest scores than would members of the same sex having opposite personality characteristics in relation to M-F.

This hypothesis was supported by the results of the Outdoor and the Scientific subtests. The mean raw scores of Groups A and C were closer on the continuum than were the mean raw scores of Groups A and B. Conversely, the mean raw scores for Groups D and B were closer than were the mean raw scores for Groups D and C.

This hypothesis was not supported by the results of the remaining four subtests. On the Mechanical and Avoiding Conflict, the mean raw scores were distributed in A, B, C, D order, i.e. from extremely masculine, least masculine, least feminine to most feminine. On the Directing Others the mean raw scores were reversed, i.e. they were distributed in D, C, B, A order. On the Clerical subtest the scores were distributed in C, D, A, B order.

Significant intra-sex differences occurred on all the subtests with one exception. The mean Clerical scores for Groups C and D did not differ significantly.

The hypothesis that the mean M-F score would be higher among

university men and women than among a non-university group was only partially supported. While the mean raw M-F scores of groups A and E were shown to be significantly different, the corresponding scores of groups C and F, the female groups, did not differ significantly. This finding is supported by Cawley's (7) results: she found that the more masculine girl goes to work after high-school while the more feminine girl goes to university. Cawley (7) also found that both groups became more overtly feminine over the two-year period of her study. The fact that college men were shown to be more masculine than non-college men supports Terman and Miles (36).

In interpreting the M-F scores, two points should be borne in mind. First, the M-F scores show only the degree to which the individual's responses agree with those most characteristic of men and women in the culture within which the test was developed. For the Terman-Miles test, the culture is that of the United States in the 1930's. Second, it should be noted that this test was designed to exaggerate sex differences. Although it can be used to determine the extent to which the individual approximates the norm for his or her sex, it does not provide a basis for establishing the amount of sex difference in psychological traits (2, p. 594).

CHAPTER V

SUMMARY AND CONCLUSIONS

The major purpose of this study was to investigate the relationship between masculinity-femininity and interests. Masculinity-femininity was defined as the degree of similarity of the individual's responses to the responses characteristic of men or of women, respectively, of our culture (36). The Terman-Miles Attitude Interest Analysis Test was used to determine M-F scores. Interest, or more properly, level of interest, was defined as the desire or readiness of an individual to engage in some activity. In this investigation, interest was measured by the Kuder Preference Record. Specifically, the main hypothesis of this study was stated as follows:

That members of opposite sexes having similar personality characteristics in relation to masculinity-femininity are closer in interest scores than are members of the same sex having opposite personality characteristics in relation to masculinity-femininity.

Initially, 400 undergraduate volunteers from the University of British Columbia were given the Terman-Miles test. On the basis of their M-F scores, the 100 extremes, namely the masculine men, the feminine men, the masculine women, and the feminine women were selected and were assigned to four unisexual groups of 25 Ss each. All four groups were then given the Kuder Preference Record, and six subtests were scored. The Kuder results were analyzed in terms of the performance of each group on each subtest. Two subtests, the Outdoor and Scientific, showed the hypothesized relationship between the mean raw scores. With one exception, the other four subtests

showed significant inter-sex and intra-sex differences but the order of mean raw scores was from most masculine to least masculine males followed by least feminine to most feminine females, in most cases.

The second purpose of this study was to investigate the statement made by Terman and Miles (36) that amount of education is positively correlated with degree of masculinity, as revealed on their masculinity-femininity test, for both sexes in the younger years and throughout life.

A group of 200 non-university volunteer white collar workers, all of whom had completed high-school, were given the Terman-Miles test. The mean raw scores for the 100 males and the 100 females in this group were compared with the mean raw scores of the university males and females. The hypothesis, that the average M-F score is higher among groups of college men and women than it is among groups of men and women who have not proceeded beyond high-school, was supported by the male comparison but not by the female comparison.

It was concluded first, that interests, as measured by the Kuder Preference Record, are not as closely related to masculinity-femininity, as measured by the Terman-Miles test, as common-sense judgments of the situation would indicate: and second, that the positive relationship between degree of masculinity and amount of education may exist in the male population, but possibly not in the female population, in our culture.

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APPENDIX A

INFORMATION ABOUT THE TEST FORMS USED IN THIS STUDY

Sample copies of the Terman-Miles Attitude-Interest Analysis Test (Form A) and the Kuder Preference Record (Forms AH and CH) have not been included in this thesis because the writer and her advisor, Dr. E. I. Signori, feel that it would be unethical to make this type of material easily accessible.