
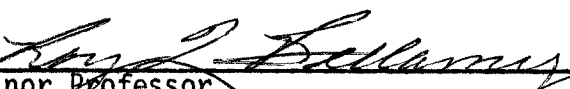


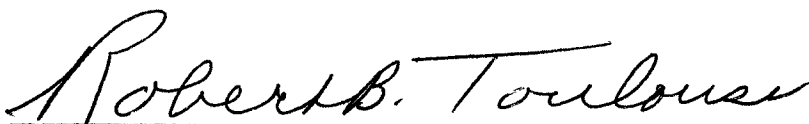
THE RELATIONSHIP BETWEEN SEX-ROLE IDENTIFICATION
AND PERSONAL ADJUSTMENT OF COLLEGE MALES

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CHAPTER I

INTRODUCTION

The physical differences between male and female may be the cause of at least some of the sexual personality differences. On the average, male infants are larger in every dimension than females and are born with relatively more muscular development (7). Male babies are more active (13), seem to be able to stand more pain than females (15), and have a higher basal metabolism rate (8). This higher basal metabolism has a psychological effect on male babies, and this may have some effect on aggression.

It may be difficult to determine the causes for sexual personality differences, but it is evident that differences do exist (3). There is little doubt that these differences can be modified through conditioning and experience (4). Regardless of how the differences are determined, boys in our society " . . . are expected to be, and are, more object-oriented, more competent in physical activities, aggressive, achievement-oriented, independent, and dominant, while girls are more nurturant, and person-oriented, more competent in verbal communication, more submissive, passive, dependent, emotional, polite, tactful, and neat" (4, p. 255).

Parents expect different behavior from girls than they expect from boys. Girls are expected to be more obedient, orderly, and passive, while physical aggression and carelessness may be tolerated in boys. For punishment, girls may be shamed for unaccepted conduct in the same

home where boys are punished by physical aggression. If a boy is passive or dependent or if he displays his emotions, he may be rebuked, whereas girls in the same family with similar behavior are accepted (12). There are more social pressures for boys to conform to masculine standards than for girls to conform to feminine standards. For example, a girl can be accepted as a tomboy, but a boy is rejected if he is a sissy (16, 17).

There are many theories as to what causes a boy to develop male-role identification. There is evidence that a boy identifies with the person who is most able to give both rewards and punishment (5). Normally, a boy wants to identify with his father, especially if the father is involved with the primary control of the home situation such as decision-making for the family and setting the limits for the children's behavior (11, 20).

Traditional distinctions between masculine traits and feminine traits are changing to such a degree that it is difficult to define what is a true masculine trait (1). For instance, there are many characteristics possessed by the modern American female that would have been considered unfeminine at the beginning of this century.

Regardless of how difficult it may be to determine and define masculine traits, numerous studies indicate that the male with fewer socially expected masculine traits has more problems of personal adjustment than does a male with strong masculine identity (6, 9, 10, 18, 19). Becker (1968) found evidence that males who have weak masculine sex-role identification have a tendency to be ". . . approval-dependent . . . and

tend to use avoidant, repressive defenses against anxiety, hostility, and fear of rejection by self and by others" (2, p. 14).

Statement of the Problem

The purpose of the present study was to determine the relationship between masculine traits in males and the characteristic patterns of emotional responses which affect social adjustment.

Hypothesis

Males low in masculinity will be significantly related in a positive direction to anxiety, introversion, and submission.

Method

Thirty-five male college students at North Texas State University were used in this study. The subjects ranged in age from eighteen to thirty-two years. The masculinity scale of the Guilford-Zimmerman Temperament Survey was the instrument used to measure masculine traits. The Taylor-Johnson Temperament Analysis was used to measure nine personality traits. After the numerical value was obtained for each subject from the Guilford-Zimmerman Temperament Survey, it was correlated with the numerical value obtained from each of the personality characteristics measured by the Taylor-Johnson Temperament Analysis. The Pearson product-moment r was the method used to determine the correlation between low masculinity to anxiety, introversion, and submission.

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CHAPTER II

THEORETICAL BACKGROUND

A number of studies indicate that the development of male sex-role identity begins early in life (4, 7). It is during this early period that it appears to be particularly important for a boy to become aware of himself as a male and to feel that he has a particular identity with his father or other significant males. Verbal cues such as "a little man" and "just like your daddy" help facilitate a boy's perception of his masculine sex-role. ". . . In order to develop a positive masculine self-concept, the boy must receive consistent nurturance and positive feedback about himself as a person" (4, p. 278).

Masculinity and femininity are not opposite ends of a continuum. An individual may be masculine in one aspect of his development and feminine in another (4). For example, a boy may have a low masculine self-image and yet try hard to identify with other males. Or a boy with a high masculine self-image may find his environment made up primarily of females and may desire to identify with and be accepted by them.

Sex-Role Orientation, Preference, and Adoption

Billler and Borstelmann (4) conclude that sex-role development should be studied as three aspects: (1) sex-role orientation, (2) sex-role preference, (3) sex-role adoption. They define sex-role orientation ". . . as one facet of the way an individual basically views himself . . .

perception of the maleness or femaleness of the self" (4, p. 260). Sex-role preference is defined as ". . . the desire to adopt the behavior associated with one sex or the other, or the perception of such behavior as more preferable" (4, p. 259). Sex-role adoption ". . . refers to the actual overt behavior of the individual relative to a given sex-role" (4, p. 259).

Parents and Sex-Role Development

Father-son relationship.--There seems to be a positive correlation between the masculine identity of boys and their fathers: (1) if the father is a strong masculine figure; and (2) if there is a cordial relationship between the father and son (6). If the father is undemonstrative and critical, then boys have a tendency to reject them as behavior models. Moulton (15), in his study of college students, found that if the fathers were nurturant and were dominant in the home, the sons were likely to be strong in masculine sex-role development.

Mother-son relationship.--Studies have shown that when the mother is the dominant figure in the home, boys have difficulty in their masculine development (13, 15). However, if the mother plays a supportive role to the father and is expectant and encouraging of masculine behavior, she will facilitate masculine development (4). If she is critical of the father and of masculine behavior, then she becomes an inhibiting force of masculine development (1, 12).

If the father is absent from the family during preschool years, there is a tendency for the child (children) to be overly dependent upon the mother (19), and an overly dependent boy will have weak masculine

identity. Also, if the father is absent, there is a greater probability that the mother will be overly protective of her son (4). Levy (14) noted that in homes where the mother was the guiding force and was over-protecting, boys had weak masculine identity. It should be noted, however, that a boy can have a strong masculine sex-role identity without a father if the mother has a high regard for masculinity and will reinforce his masculine development.

Discipline.--Another factor in masculine sex-role identification is discipline. A number of studies suggest that parents who are restrictive and non-permissive toward aggression tend to have boys low in masculinity while parents who are permissive and democratic in dealing with their children will tend to have sons who are more highly masculine (2, 3, 18).

Physical Factors

If a boy is unsuited physically for the male role, he will find it difficult to see himself as being very masculine. When he finds little support for his masculine sex-role identification from his peers, he will often overcompensate for acceptance, and this usually leads to behavioral and emotional problems (4).

Masculine Traits

The operational base of the male is different than that of the female. For example, the male is achievement-oriented while the female is usually person-oriented (4, 8, 11, 16, 17, 20). The achievement-oriented male is more competitive, more aggressive, and more dominant

than the person-oriented female. Because she is person-oriented, she relies more on communication, affection, and tolerance. If she relied on competition, aggression and dominance, she would be self defeating as a female.

In a study by Mussen (16) it was found that boys who were more masculine in their interests were more concerned with adequacy, achievement, and control. On the other hand, boys with low masculine interests, i.e., relatively feminine interests, were found to be more affectionate, dependent, and social.

Heilbrun (11), in questioning four hundred college students, found that such traits as "achievement, autonomy, dominance, and endurance" were considered father characteristics and "deference, affiliation, succorance, abasement, and nurturance" were named as mother traits.

Preschool and early elementary boys are usually more aggressive, independent, and dominant than girls, and girls are more likely to be submissive, tactful, and dependent than boys (4). Hartly (10) found that school-age children expect aggression, dominance, and independence as being more appropriate for boys than for girls.

The Terman and Miles study (21) reported that females are more compassionate, sympathetic, and emotional in general than boys. Girls are more fearful and less aggressive, and they are not as nearly embarrassed by weakness in emotional control as boys (21). From the Terman and Miles study one would conclude that if a male rated high in compassion, sympathy, and emotional expression, he would be considered low in masculinity.

Relationship of Masculine Traits to Temperament

Heilbrun (11), in investigating adolescent males, found that there was a high role-consistency in boys who had "such masculine attributes as dominance, strength, emotional control, independence, etc." as compared to less masculine boys. Since these traits are expected in males, the less masculine male will usually modify his behavior to try to avoid social censure, and this causes him to have a low role-consistency and numerous inner conflicts (11).

Consistent with Heilbrun (11), Mussen (16) hypothesized that a male's social adjustment and emotional stability will be determined to a large degree by his sex-typing behavior. If he attains "a high degree of appropriate sex-typing behavior," then he will fulfill the expectations of parents, peers, and society at large and will be more able to cope with the problems of everyday life and experience greater success in interpersonal relationships. Without appropriate sex-role identification, a person will be without a "stable inner core of identity," will be lacking in role-consistency, and will be plagued with self-doubts and anxiety (5, 11).

Difficulty in Measuring Masculinity-Femininity

Though studies have been made on masculinity and femininity, the empirical approach has had research difficulties. The primary problem has been to get an operational definition of masculinity and femininity and to develop instruments that can assess the characteristics. Most

studies to the present date have relied on verbal descriptions of interests and activities that Western culture considers as masculine or feminine. As examples, the masculine-feminine scale of the Terman and Miles Attitude Inventory, Minnesota Multiphasic Personality Inventory, Strong Vocational Interest Blank, and California Psychological Inventory are all based on interests and activities and not on traits.

Limitations of this Study

Masculine traits.--This investigation of masculinity in males was limited to the eight qualities covered in the M scale of the Guilford-Zimmerman Temperament Survey (9). From the studies reviewed in this research, it was assumed that a high raw score on the Guilford-Zimmerman Temperament Survey M scale denoted a person who was characteristically masculine. The eight qualities tested in this survey were the following: (1) interest in masculine activities and vocations versus interest in feminine activities and vocations; (2) not easily disgusted versus easily disgusted; (3) hardboiled versus sympathetic; (4) resistant to fear versus fearful; (5) romantic interest (feminine quality); (6) inhibition of emotional expressions versus emotional expressiveness; (7) little interest in clothes and styles; (8) dislike of vermin (feminine quality).

The Guilford-Zimmerman Temperament Survey has been used over a period of years. Validation studies from various sources have provided support for confidence in the instrument. Concerning its reliability of scores, it is stated in the manual:

Estimates of the total-score reliabilities were made in various ways, based upon samples of 523 male college students and 389 female students. Kuder-Richardson formulas were applied to the data for men and women separately and combined. Odd-even and first-half-second-half correlations were obtained for a random sample of 100 men . . . (p. 5).

From the data of the study cited above, the authors of the Guilford-Zimmerman Temperament Survey estimate the standard of error for scores on the M scale to be 2.3 and the reliability coefficient to be .85 (1, p. 6).

Personality traits.--The Taylor-Johnson Temperament Analysis (20) was used to measure nine personality variables or behavioral tendencies. The purpose of this measurement was to ascertain and evaluate certain personality traits that influence personal and social adjustments of the subjects being studied. The traits measured were (1) nervous versus composed; (2) depression versus lighthearted; (3) active-social versus quiet; (4) expressive-responsive versus inhibited; (5) sympathetic versus indifferent; (6) subjective versus objective; (7) dominant versus submissive; (8) hostile versus tolerant; (9) self-disciplined versus impulsive.

To measure the construct validity of the Taylor-Johnson Temperament Analysis, correlations were computed with the Edwards Personal Preference Schedule and the Minnesota Multiphasic Personality Inventory (see Appendix). Correlations between the Taylor-Johnson Temperament Analysis and these two personality tests can be cited as evidence that the Taylor-Johnson Temperament Analysis measures the same general area of behavior as the other tests.

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CHAPTER III

METHODOLOGY

Subjects

Thirty-five male college students present for class in two General Psychology classes at North Texas State University were used in this research.

The subjects ranged in age from eighteen to thirty-two years. The mean age was 21.5.

Instruments

The measures chosen for this investigation were the masculinity scale of the Guilford-Zimmerman Temperament Survey and the personality traits of the Taylor-Johnson Temperament Analysis.

Procedure

The subjects participating in the present study were asked to cooperate for the benefit of scientific research. They were told that the tests were simple true-false questions that had to do with their opinion of themselves and their environment. They were asked to answer all questions as honestly as they could. They were asked not to deliberate on any one question but to answer as to whether they thought the answer was mostly true or mostly false if the question was not totally applicable.

Both tests were issued to the subjects at the same time. They were asked to complete the Guilford-Zimmerman Temperament Survey test first and then do the Taylor-Johnson Temperament Analysis. They were told that there was adequate time to complete both tests during the class period if one would answer each question without undue deliberation.

The instructor asked that each subject write his name and age on the answer sheets before beginning the test. Subjects were assured that all information obtained from the tests would be kept confidential and would be used in the research project without being examined by anyone on the college faculty. After questions were answered as to the test procedure, all were asked to begin.

Only the masculinity scale of the Guilford-Zimmerman Temperament Survey was used. This scale is composed of thirty questions to be answered "yes" or "no." The M scale yields a score on a continuum from one to thirty. The raw score is converted to a C score. A low C score means a lack of the masculinity trait, and conversely, a high score indicates more of the masculinity trait.

TABLE I

THE MASCULINITY PROFILE CHART
OF THE GUILFORD-ZIMMERMAN
TEMPERAMENT SURVEY

Raw Score	2-8	9-11	12-14	15-17	18-19	20-21	22-23	24	25-26	27-28	29-30
<u>C</u> Score	0	1	2	3	4	5	6	7	8	9	10

The Taylor-Johnson Temperament Analysis was used in its entirety. Raw scores were obtained for each of the nine traits measured from each subject. The raw scores were converted to percentile scores. (See Appendix for raw score conversion chart.)

Statistical Treatment of Data

After the numerical value (C score) was obtained for each subject from the Guilford-Zimmerman Temperament Survey, it was correlated with the numerical value obtained (percentile) from each of the nine characteristics measured by the Taylor-Johnson Temperament Analysis. The correlation method used was the Pearson product-moment r.

CHAPTER IV

RESULTS AND DISCUSSION

Presentation of Data

The treated data from the computer center included the mean scores and standard deviations of all sets of scores used, as well as the correlation coefficients obtained between the M score of the Guilford-Zimmerman Temperament Survey and the nine scores on the Taylor-Johnson Temperament Analysis. Correlations between the M scale of the Guilford-Zimmerman Temperament Survey and the Taylor-Johnson Temperament Analysis trait scores were considered to be significant when they reached values at the .01 level of confidence.

The results of the study were evaluated according to the hypothesis presented in Chapter I. The hypothesis was the "males low in masculinity will be significantly related, in a positive direction, to anxiety, introversion and submission." Data relating to this hypothesis are presented in Tables I, II, and III.

Table II is a presentation of the correlation coefficients between the Guilford-Zimmerman Temperament Survey masculine C scores and the personality traits measured by the Taylor-Johnson Temperament Analysis. It is assumed in this study that traits such as nervousness, depression, subjectivity, and hostility would be handicaps to personal adjustment. It would also be assumed that the traits such as active-social, expressive-responsive, sympathy, dominance, and self-discipline would be

TABLE II
CORRELATION BETWEEN GUILFORD-ZIMMERMAN TEMPERAMENT
SURVEY M SCORES AND TAYLOR-JOHNSON TEMPERAMENT
ANALYSIS PERSONALITY TRAIT SCORES

Personality Traits	<u>r</u>	P
Nervous*	-.44	.01
Depressive*	-.21	NS
Active-Social	.31	NS
Expressive-Responsive	.28	NS
Sympathetic	-.04	NS
Subjective*	-.47	.01
Dominant	.18	NS
Hostile*	-.14	NS
Self-Disciplined	.15	NS

*These traits are considered to be negatively related to personal adjustment.

assets to adjustment provided neither of the traits are excessive and would have a positive correlation to the C score. The hypothesis was supported at the .01 level by a negative correlation between high masculinity and the personality traits of nervousness and subjectivity. There was not a significant correlation between the masculinity score and the other personality traits measured.

Table III provides a comparison of the mean percentile scores of certain personality traits to the different levels of masculinity. The assumption is that the higher the C score, the stronger the male

TABLE III

FREQUENCY DISTRIBUTION OF MASCULINE C SCORES AND MEAN
 PERCENTILE SCORES OF PERSONALITY TRAITS RELATED
 TO ANXIETY, INTROVERSION AND SUBMISSION

Masculine C Score	f	Nervous	Depres- sion	Active- Social	Expressive- Responsive	Subjec- tive	Domi- nant	Self-Dis- ciplined
1	1	91	99	16	10	95	36	27
2	2	94	61	33	15	95	73	35
3	2	84	59	46	48	56	54	44
4	8	87	51	44	73	60	46	26
5	6	51	51	81	75	44	53	45
6	9	65	54	42	49	47	48	51
7	1	41	55	69	41	25	13	93
8	6	39	46	70	73	32	67	36

sex-role identification. According to the hypothesis of this study, the higher the C score, the lower the scores on nervousness, depression, and subjectivity. Also, according to the hypothesis of this research, the higher the C score, the higher would be the scores on active-social, expressive-responsive, dominance, and self-discipline. The significance of these comparisons will be discussed in Chapter V.

Table IV lists the number of subjects by ages with the mean C score for each age. More than half of the subjects were twenty-one years of age or less. The mean C score of those twenty-one or less was 4.8. The mean C score of those twenty-two or older was 5.6. This would seem to indicate that the older male tends to have stronger masculine sex-role identity than does the younger male.

TABLE IV
 FREQUENCY DISTRIBUTION OF AGES OF SUBJECTS AND
 GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY
 MEAN MASCULINE C SCORES

Age	Number of Subjects	Masculine <u>C</u> Score
18	6	3.8
19	1	4.0
20	8	5.8
21	7	5.6
22	4	4.8
23	4	5.5
25	1	6.0
26	1	5.0
27	1	4.0
29	1	6.0
32	1	8.0
Mean Age = 22	N = 35	Mean <u>C</u> Score = 5.2

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

The present study hypothesizes that if a male identified comfortably with other males, enjoyed masculine activities, and possessed qualities that were recognized by both males and females as masculine, he would have the personality traits that would make personal adjustment easier for him than the less masculine male. It would be expected that he would have less anxiety, be more extroverted and more assertive than the less masculine male.

In this study the Guilford-Zimmerman Temperament Survey was used to measure the degree of masculine sex-role identification in a male.

The results of this study seem to indicate that the M score of the Guilford-Zimmerman Temperament Survey has a high discriminatory value. The C scores on the thirty-five subjects used in this investigation ranged from one to eight. There was indication of a difference in the personality traits of the subjects who scored on each end of the C score continuum (see Tables III and V). Taking the scores that fall between one and three as being the low masculinity group and the subjects scoring between seven and eight as being the high masculinity group, it was noted that there was a positive correlation between the low masculinity scores and nervousness, depression, and subjectivity. As far as this study was concerned, there was no evidence to cause lack of confidence

TABLE V

COMPARISON OF THE PERSONALITY TRAIT PERCENTILE
SCORES AND THE LOW AND HIGH
MASCULINITY GROUPS

Personality Trait Percentile Scores	Low Masculinity Group C Scores 1-3	High Masculinity Group C Scores 7-8
Nervous	91-84	41-39
Depression	99-59	55-46
Active-Social	16-46	69-70
Expressive-Responsive	10-48	41-73
Subjective	95-56	25-32
Dominant	36-54	13-67
Self-Disciplined	27-44	93-36

in the M scale of the Guilford-Zimmerman Temperament Survey as a valid instrument to discriminate between high and low sex-role identification of males. The above illustration, although the two samples were small, would indicate support for its validity.

Since the construct validity of the Taylor-Johnson Temperament Analysis has been measured by correlations computed with the Minnesota Multiphasic Personality Inventory and the Edwards Personality Preference Schedule, the validity of the Taylor-Johnson Temperament Analysis was assumed as a valid instrument to measure anxiety, introversion and submission.

The working hypothesis was that males low in masculinity will significantly be related in a positive direction to anxiety, introversion, and submission.

According to the manual, the following scales on the Taylor-Johnson Temperament Analysis are related to anxiety: Nervous, Depressive, Subjective, and "to some degree" Hostile. The results of this investigation as to the relationship between low masculinity and anxiety are shown in Table VI.

TABLE VI
CORRELATION BETWEEN ANXIETY TRAITS
AND LOW MASCULINITY

Trait	<u>r</u>	P
Nervous	-.44	.01
Depressive	-.21	NS
Subjective	-.47	.01
Hostile	-.14	NS

Each of the above r values are negative because the correlation was made between the M score and each of the traits. To support the hypothesis, the r value of these traits would be negative since the correlation was measured between high masculinity and high anxiety traits.

Although there was a negative relationship between high male sex-role identification on all four anxiety traits listed above, as was

hypothesized in this study, only the Nervous and the Subjective traits were significant at the .01 level.

The three personality traits measured by the Taylor-Johnson Temperament Analysis that are related to introversion would be low scores on Active-Social, Expressive-Responsive, and Dominant. If there was a positive correlation between introversion and low masculinity as hypothesized in this research, then the r value would be positively correlated with each of the three traits, i.e., a low Guilford-Zimmerman Temperament Survey M score would be expected to be positively related to a low Taylor-Johnson Temperament Analysis score on each of the extroverted scales. The correlation was positive (see Table VII).

TABLE VII
CORRELATION BETWEEN LOW SCORES ON EXTROVERSION
TRAITS AND LOW MASCULINITY

Trait	r	P
Active-Social	.31	NS
Expressive-Responsive	.28	NS
Dominant	.18	NS

Although a low M score on each of the traits did have a positive r value, the correlation was not significant at the .01 level.

The submissive trait on the Taylor-Johnson Temperament Analysis instrument is measured by a low score on the Dominant Scale. The above illustration indicates a low correlation between low masculinity and submission.

Conclusions

The sample subjects for this study consisted of thirty-five college males with an age range of eighteen to thirty-two years. They were each given the M portion of the Guilford-Zimmerman Temperament Survey to measure the degree of masculine sex-role identification in each subject. The subjects were also given the Taylor-Johnson Temperament Analysis to measure the quantity of anxiety, introversion, and submission in each. To test the hypothesis, Pearson's coefficient of correlation was computed between the M and C scores of the Guilford-Zimmerman Temperament Survey and each of the percentile scores on the Taylor-Johnson Temperament personality traits.

The results of this study indicated a positive relationship between college males low in masculine sex-role identification and two anxiety traits, nervousness and subjectivity. Both nervousness and subjectivity were significantly correlated with low masculinity at the .01 level. The results of this study did not support the hypothesis that low masculinity is positively related to introversion and submission.

Some indication of trends, however, suggested that if the population sample had been larger and if the population had had a greater proportion of the sample in the low masculine range, the hypothesis might have been supported. It is noted in Table III (p. 20) that (1) the subjects with the low masculine C scores, one to three, had a mean Nervous score of eighty-nine compared to the scores of those in the high masculine C score range of seven to eight who had a Nervous score of thirty-nine; (2) the low masculinity group had a mean Depression score of sixty-six

compared to the high masculinity group whose mean was forty-seven; (3) the low masculinity group had a mean Active-Social score of thirty-five compared to the high masculinity group with a mean score of sixty-nine; (4) the low masculinity group had a mean Expressive-Responsive score of twenty-seven compared to the high masculinity mean score of sixty-eight; (5) the low masculinity group had a mean Subjective score of seventy-nine compared to the high masculinity group with a mean of thirty-one; (6) the low masculinity group had a mean Dominant score of fifty-six compared to the high masculinity with a mean of fifty-eight (this would indicate the trend that Dominance is not positively related to masculinity); (7) the low masculinity group had the lower mean scores on the Self-Disciplined trait to the high masculinity group of thirty-seven compared to forty-four.

Although the above comparisons are only trends from a very small sample at the two ends of the low-high masculine continuum, the trends would indicate that further study with a much larger and more representative college male population could conceivably support the hypothesis tested in this research.

APPENDIX

TABLE VIII

Coefficients of Correlation between the T-JTA and the EPPS Variables
N=100

Variable	T-JTA		EPPS														
	Mean	S.D.	Ach	Def	Ord	Exh	Aut	Aff	Int	Suc	Dom	Aba	Nur	Chg	End	Het	Agg
A Nervous	12.3	7.55	-.09	-.08	-.10	-.05	.03	.05	-.09	.16	-.29**	.28**	.24*	-.02	-.19	.04	.11
B Depressive	11.7	9.37	-.22*	-.28**	-.10	-.11	.03	.05	-.14	.30**	-.37**	.34**	.25*	.03	-.16	.13	.19
C Active-Social	25.5	7.58	.19	-.04	-.01	.17	-.23*	.01	.23*	-.29**	.15	-.30**	-.02	.05	.04	.06	.00
D Expressive	28.8	7.71	.08	-.08	-.19	.19	-.13	.04	.24*	-.13	.15	-.25*	.10	-.05	-.08	.13	-.02
E Sympathetic	31.3	5.69	-.11	.07	-.14	-.13	-.17	.28**	.34**	-.07	-.26**	-.09	.32**	.13	-.06	.09	-.13
F Subjective	11.3	6.64	-.14	-.30**	-.22*	-.04	.09	-.03	-.24*	.24*	-.21*	.27**	.14	.11	-.26**	.17	.36**
G Dominant	22.2	6.44	.11	-.08	.11	.10	-.10	-.20*	.01	-.20*	.40**	-.24*	-.19	-.15	.01	.11	.17
H Hostile	10.2	6.58	.06	-.24*	-.11	.11	.08	-.16	-.16	-.03	.15	.12	-.16	-.15	-.17	.18	.35**
I Self-Disciplined	23.6	8.55	.14	.25*	.50**	-.21*	-.39**	-.11	.08	-.10	.17	-.13	-.10	-.20*	.47**	-.22*	-.23*
Mean			17.6	12.3	10.7	13.8	13.7	14.3	16.3	10.0	16.4	12.3	14.1	16.1	15.2	15.5	11.7
Standard Deviation			4.15	3.94	4.87	3.62	4.38	3.88	4.57	4.22	5.52	5.39	4.74	4.45	5.23	6.25	4.72

*Correlation significant at .05 level. **Correlation significant at .01 level.

TABLE IX

Correlations between the T-JTA and the MMPI Variables
N=200

Variable	T-JTA		MMPI												
	Mean	S.D.	L	F	K	Hs	D	Hy	Pd	Mf	Pa	Pt	Sc	Ma	Si
A Nervous	11.33	7.24	-.20**	.38**	-.44**	.53**	.45**	.16*	.40**	.15*	.16*	.63**	.50**	.28**	.38**
B Depressive	8.4	7.13	-.26**	.46**	-.48**	.44**	.54**	.01	.42**	.16*	.31**	.66**	.59**	.17*	.51**
C Active-Social	27.5	7.11	.03	-.28**	.09	-.10	-.23**	.07	-.14*	-.03	-.13	-.23**	-.22**	.18*	-.53**
D Expressive	31.0	5.77	.11	-.35**	.25**	-.19**	-.34**	.12	-.23**	-.03	-.18*	-.35**	-.35**	.04	-.56**
E Sympathetic	32.2	4.88	.20**	-.11	.11	-.05	.02	.08	-.08	.25**	.08	-.04	-.15*	-.07	-.14*
F Subjective	11.1	6.34	-.28**	.38**	-.53**	.34**	.41**	-.11	.24**	.23**	.20**	.58**	.52**	.19**	.52**
G Dominant	20.0	6.49	.03	-.16*	.09	-.11	-.26**	.04	.01	-.17*	-.07	-.25**	-.18*	.16*	-.50**
H Hostile	9.1	6.06	-.31**	.30**	-.41**	.25**	.22**	-.03	.31**	.02	.06	.36**	.38**	.20**	.23**
I Self-Disciplined	22.6	7.51	.22**	-.29**	.24**	-.25**	-.17*	.01	-.20**	-.17*	-.09	-.32**	-.31**	-.24**	-.17*
Mean			3.0	3.8	15.9	4.7	19.8	22.1	15.7	34.6	9.9	12.2	10.9	16.9	24.4
Standard Deviation			1.94	2.75	4.32	3.63	4.53	4.27	4.21	6.65	2.49	7.41	6.95	4.43	8.38

*Correlation significant at .05 level. **Correlation significant at .01 level.

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