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THE RELATIONSHIP OF SEX-ROLE IDENTIFICATION
AND ACHIEVEMENT MOTIVATION TO SELF-ESTEEM
IN MALE AND FEMALE COLLEGE STUDENTS

by

Anne B. Stericker

A Thesis Submitted to the Faculty of the Graduate School
of Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of
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CHAPTER I

INTRODUCTION

Although beliefs about the self have always figured prominently in personality and developmental theories, it is only comparatively recently that empirical research has begun to focus on the self concept and its correlates (Hartup & Yonas, 1971). Nonetheless, many theorists (e.g., Coleman, 1972; Coopersmith, 1967) have maintained that the two major factors leading to positive self concept are valuing by significant others in the individual's life and competence or achievement in areas which the individual deems important. White (1971) believes that the function of exploratory and playful behavior in children and young animals is the development of competence in dealing with the environment, and suggests that a sense of competence in human beings is a vital aspect of self-esteem.

Recently, increased attention has been directed to the differential role of achievement motivation and achievement-related behavior in males and females. For example, Stein, Pohly, and Mueller (1971) tested sixth-grade girls and found that they exhibited higher attainment values (the values placed on performing well in given achievement areas) and greater expectancies of success on tasks labelled "feminine" or "neutral" than on "masculine" tasks. In past research the situations which aroused achievement motivation fairly reliably for males have not done so consistently for females. In a review of the

literature on achievement motivation and achievement-related behavior in females, Stein and Bailey (1973) suggested that the reason for the inconsistent findings with females lies in the fact that achievement motivation theory was originally developed to explain the behavior of males. To explain female behavior, females must be examined in their own right. One hypothesis which Stein and Bailey offered to explain previous difficulties is that females' achievement orientations are likely to be manifested in areas culturally defined as sex-appropriate for females, especially in the area of social skill. The authors cited a large body of research as evidence.

Sexual identification and sex-role identification, two separate but closely related concepts, have been studied by several researchers in relation to self-esteem. Connell and Johnson (1970), testing young adolescents found a positive relationship between adequacy of sex-role identification and feelings of self-esteem for male subjects, but not for female subjects. No significant difference was found between females with high sex role identification and those with low identification. The authors concluded that the male role may have high reward value whether adopted by a male or a female, and that a female's position is different from the male's in that she can apparently adopt either a feminine orientation or a somewhat masculine orientation without seriously affecting feelings of self-esteem.

In a 1972 study Bieliauskas and Mikesell predicted that male subjects with a clearer sexual identification would have a more positive self concept than subjects having a weaker sexual identification. They tested 101 male introductory psychology students using the

Tennessee Self Concept Scale and the Franck Drawing Completion Test as a non-verbal, projective measure of masculinity-femininity. The Franck test is assumed to tap a different, more unconscious aspect of masculinity-femininity than those tapped by verbal measures; therefore, its low intercorrelation with verbal measures is not believed to reflect on its validity. The results, however, did not support the authors' hypothesis. Subjects with high sexual identification did not have significantly better self concepts than subjects with low sexual identification. Bieliauskas and Mikesell proposed that possibly their hypothesis was not supported because of insufficient validity in the Tennessee Self Concept Scale. A more reasonable explanation would seem to be that the Franck test may lack validity. Numerous studies of the Tennessee Self Concept Scale (e.g., Ashcraft & Fitts, 1964; Fitts, 1965; Havener & Izard, 1962; Lefeber, 1964) have supported the test's discriminative validity as originally reported by Fitts. On the other hand, a review of tests of masculinity-femininity by Constantinople (1973) indicated that the Franck test, along with virtually all M-F tests currently in use, is built on a number of apparently false assumptions. The first is that the masculinity-femininity construct is best defined in terms of sex differences in item responses, with little or no commonality in content or underlying definition. Although this may be the most practical approach to M-F test construction, the result is an extremely "muddy" definition of the construct. Undoubtedly, average length of big toe discriminates between males and females, but it is absurd to say that the length of a woman's big toe makes her more feminine or less feminine. Yet the difficulties inherent in any other

method of test construction are so great that this problem may be slow to be resolved. The second untested assumption of current masculinity-femininity tests is that M-F is a bipolar dimension ranging from extreme masculinity at one end to extreme femininity at the other. Since there is presently evidence for separate masculinity and femininity dimensions (possibly in addition to a bipolar M-F dimension) Constantinople suggested that the bipolarity hypothesis needs to be empirically tested before a final judgment can be reached. Finally, most current tests represent masculinity-femininity as a single dimension which can be summed up in a single score. Available data, however, clearly point to multidimensionality, that is, some combination of uni- and/or bipolar dimensions. None of the tests reviewed by Constantinople contains homogeneous subscales that can be scored separately.

The construct of sex-role has also recently begun to be included in studies of achievement motivation in women. The results of two studies by Alper (1973) supported her prediction that achievement motivation in women would be significantly related to sex-role orientation. While both high feminine role-oriented and low feminine role-oriented subjects gave relatively equal amounts and degrees of achievement imagery in their projective stories, significant differences in types of success or achievement were found. Low feminine subjects usually told stories in which the women were engaged in critical tasks, such as seeking cures for dread diseases, and in the stories the characters' efforts were highly successful. High feminine subjects also told success stories, but the success was typically instrumental

in attaining traditional feminine goals (e.g., attaining a mate) or female-oriented (e.g., manufacture of a sensational perfume), or auxiliary to the success of men. Alper's results lend support to Stein and Bailey's premise that women do not show less achievement motivation than men, but may be more likely to manifest it in culturally designated sex-role-appropriate areas.

If it is true that the primary constituents of self-esteem are competence and valuing by significant others, we may ask how the variable of sex-role identification fits into the esteem equation. Intuitively it would seem that satisfactory sex-role adjustment would lead both to feelings of competence as a male or female and to self assurance concerning the respect of significant others for oneself as a male or female, and thus lead to feelings of self-esteem. Of course, "satisfactory" sex-role identification might as logically be conventional as unconventional, traditional as untraditional, provided that the components of competence and valuing were both present.

If adolescent males need high masculine identification for optimal self-esteem, whereas adolescent females do not necessarily need high feminine identification for the same level of self-esteem, what other concepts might help to predict female esteem more adequately? More specifically, what contributes to the high self-esteem of females who do not show high feminine identification? The author suggests that a high level of achievement motivation is associated with feelings of competence and thus with feelings of self-esteem in both males and females. In those females, however, with low feminine identification, yet high self-esteem, achievement motivation might well be a more

important correlate of self-esteem than in the case of males. As Connell and Johnson (1970) pointed out, the (adolescent) female can adopt a somewhat masculine orientation and find reward value in the competence and mastery associated with the masculine stereotype, or she can adopt the feminine orientation and receive positive reinforcement for responding to a socially expected and maintained stereotype. She can apparently make either choice without seriously affecting feelings of self-esteem. This explanation would seem to have relevance for late adolescent and young adult females as well as for early adolescent females. The dual-role-choice idea has been used by Putnam and Hansen (1972) in explaining vocational maturity in young women. They believe that as a result of education and changing cultural values, there is today a role continuum for women, from women who fulfill themselves through the intermediacy of others (other-oriented) to women who fulfill themselves through utilizing their own potentials (self-oriented). It is suggested by the present author that the "self-oriented woman" corresponds to the woman for whom achievement is more important than a traditional feminine sex-role orientation, while the "other-oriented woman" corresponds to the woman for whom traditional feminine sex-role identification contributes more to her self-esteem.

This thesis proposes to examine the relationship of achievement motivation and sex-role identification to feelings of self-esteem in male and female college students.

Hypotheses

1. It is expected that there will be no significant difference between the self-esteem scores of males and the self-esteem scores

of females.

2. For males, it is predicted that significant positive correlations will be found
 - a. between masculine sex-role identification and self-esteem, and
 - b. between achievement motivation and self-esteem.
 - c. Furthermore, a significant interaction effect is expected for males between achievement motivation and sex-role identification, such that the effect of sex-role identification will override the effect of achievement motivation. Thus, it is expected that males high in achievement motivation and low in masculine sex-role identification will have significantly lower self-esteem than males low in achievement motivation but high in masculine sex-role identification.
3. In keeping with the hypothetical construct of a self-oriented/ other-oriented role-continuum for women, it is expected that for the female subjects, self-esteem may be associated either with a traditional feminine sex-role orientation or with a strong achievement motivation (and a relatively more "masculine" sex-role orientation). Thus, for females it is predicted that significant correlations will be found
 - a. between feminine sex-role identification and self-esteem, and
 - b. between achievement motivation and self-esteem.

Since on the Stereotype Questionnaire, a relatively more feminine sex-role identification is denoted by a lower score, while

a relatively more masculine sex-role identification is denoted by a higher score, the correlation between feminine sex-role identification and self-esteem ought to be negative. The achievement-esteem relationship for females, like the relationship for males, ought to be positive.

- c. Finally, it is hypothesized that females with both high achievement motivation and strong, feminine sex-role identification will be highest in self-esteem.

Although measures of sex-role preference will also be taken, specific hypotheses regarding the variable are not made in this study.

CHAPTER II

METHOD

Subjects

Subjects were 159 female and 153 male introductory psychology students at Loyola University of Chicago (a Catholic coeducational institution) who volunteered in partial fulfillment of a research participation requirement.

Instruments

Two personality instruments were employed to assess achievement motivation and sex-role identification. The measure for achievement motivation was a modified form of a test developed by Mehrabian (1968; 1969) which concurrently measures the need for achievement and the need to avoid failure. Mehrabian defines "high achievers" as those whose motive to avoid failure is stronger than their motive to achieve. The original test consists of 26 items (with a male and a female version) and requires the subject to register agreement or disagreement to a series of statements derived from achievement motivation theory. The resultant score represents the prepotence of need for achievement over need to avoid failure. Initial inspection by this author and several colleagues of the female version of the test led to the elimination of five items deemed inappropriately trivial or sex-biased (e.g., "If I were rooming with a number of girls and we decided to have a party, I would rather organize the party myself than have one of the others

organize it" and "I would rather that our women's group be allowed to help organize city projects than be allowed to work on the projects after they have been organized"). There were no items on the male version which characterized or named males in a similarly stereotyped manner. It was felt that the validity preserved by not engendering a negative mental set in female subjects would more than offset any portion of validity possibly sacrificed by the omission of the items.

Following the elimination of the five female items, a single version for both males and females was constructed consisting of the 14 items common to both original versions plus six original female items and seven original male items, for a total of 27 items on the revised version.

The instrument used to measure sex-role identification was the Stereotype Questionnaire developed by Rosenkrantz, Vogel, Bee, Broverman and Broverman (1968) to assess self-description in relation to societal sex-role stereotypes for men and women. The test consists of 41 bipolar Likert-Scale items of the type:

Not very aggressive Very aggressive
 1.....2.....3.....4.....5.....6.....7

Of the 41 items, 29 were judged by Rosenkrantz et al.'s subjects to be "male-valued" (the masculine pole more socially desirable; e.g., "Knows the way of the world") and 12 were judged to be "female-valued" (the feminine pole more socially desirable; e.g., "Very gentle"). The subject responds by placing a check for each item somewhere between 1 and 7. A response checked at the masculine extreme of the item is scored 7, while one at the feminine extreme is scored 1. Thus, high

scores indicate stereotypic masculinity and low scores indicate stereotypic femininity. Male-valued items incorporate such traits as independence, self-confidence, objectivity, calmness in a minor crisis, and skill in business; female-valued items include tact, religiousness, interest in own appearance, quietness, need for security and awareness of others' feelings. Rosenkrantz and his associates showed in their study that fairly clear-cut and persistent sex-role stereotypes for males and females exist among college students, and that the students tend to describe themselves as similar to the sex-appropriate stereotype, but less extreme than the stereotype.

In spite of the fact the stereotypes do contribute to the "fakability" of measures of masculinity-femininity (see Bieliauskas, Miranda, & Lansky, 1968) it is nevertheless difficult to know how and to what degree to control for their effects (Constantinople, 1973). The Stereotype Questionnaire shares the weakness of most tests of M-F as described previously. Since at the time of the present study no tests were known to the author which did not manifest such weaknesses, the Stereotype Questionnaire was selected as most closely fitting the needs of the present research.¹ The test was administered as a measure of sex-role identification, or more specifically, the degree to which an individual identifies with the societal stereotype of a male or female as represented by the 41 stereotype items.

Self-esteem was assessed using the Tennessee Self Concept Scale (Fitts, 1965). The Tennessee is composed of 100 self-descriptive statements which the subjects used to portray their own picture of themselves. Item response format is a five-point Likert scale ("Completely

False" to "Completely True"). The item scores are summed to yield a basic Total Positive Self-Esteem score and some 15 to 35 subscores, depending on the tester's particular needs. Subscores cover such areas as Personal Self, Social Self, Family Self, Moral-Ethical Self and Physical Self; Basic Identity, Perception of own Behavior, and Self Acceptance; as well as several measures of internal conflict, defensiveness, variability and consistency. Only the Total Positive Self-Esteem score was used in the present study.

A personal data sheet was included in the test booklet of each subject, requesting such information as sex, age, religion, birth order, and whether the subject's mother had worked outside the home during most of the subject's childhood, and whether the subject's father had lived at home during most of the subject's childhood. Most of this information was not included in the present study.

The Tennessee (T), the Mehrabian Achievement Test (M), two copies of the Stereotype Questionnaire (S), and the personal data sheet (P) were compiled into a test booklet. The order of the tests for different subjects was varied roughly according to a Latin squares design, such that booklets containing five different orders were finally used (i.e., TMSSP, MSSPT, PTMSS, SSPMT, and MTSSP).

Procedure

Group administration was used, with a total of six separate testing groups. At the start of the hour, general instructions were given, with specific instructions to stop when the first Stereotype Questionnaire was reached. When most subjects had reached this point, all subjects were asked to begin the first Stereotype Questionnaire

(called "Behavioral Measures" in the booklet), and to describe themselves in terms of each of the 41 items. When all had finished, subjects were asked to go through the second questionnaire describing the ideal person of the same sex as themselves. The procedure was employed in order to prevent subjects from being influenced in their responses to the self-description questionnaire by the knowledge of instructions for the ideal-description questionnaire. Since social desirability responding was known to be a problem associated with tests of masculinity-femininity (Bieliauskas, Miranda, & Lansky, 1968), it was thought that the possible tendency to distort the self-ideal discrepancy would be reduced by presenting the instructions for the two forms separately. The self description was designated the sex-role identification measure, and the ideal description was designated a measure of sex-role preference. Total time required for all tests was approximately 45 minutes.

A general method of multiple regression analysis was employed in which the relative contributions of the four independent variables and their interactions could be evaluated in a stepwise multiple regression paradigm. The rationale and procedures for testing interaction effects in this way have been described by Cohen (1968). Stepwise multiple regression was determined to be a more powerful method than the analysis of variance, which accommodates unequal cell sizes only with a considerable increase in computation. Dividing of subjects into male and female groups, then each of those into high and low scoring groups for sex-role identification, and the resulting four groups into high and low achievement groups would have produced eight groups of widely

unequal n's, since achievement and sex-role identification were positively correlated for both males and females ($r = .1118$, $df = 151$, $p < .10$; and $r = .1562$, $df = 157$, $p < .025$ respectively; one-tailed test). Multiple regression analysis allows for the expression of the dependent variable self-esteem as a function of both the significant, independent effects of achievement motivation, sex-role identification, sex-role preference and sex, and all possible interactions among the independent effects. The single multiple regression equation neatly summarizes all the effects of a complex factorial design. The regression coefficients in the equation provide information about the relative magnitudes of the various significant effects. Finally, the results from two or more analyses can readily be compared when equations are used.

CHAPTER III

RESULTS

Analysis of the findings was based on a set of simple scores and composite scores for each subject obtained as follows. Psychological testing yielded four simple scores, namely achievement motivation, sex-role identification, sex-role preference and self-esteem. Achievement motivation, sex-role identification and sex-role preference were the initial independent variables, and self-esteem was the dependent variable of interest. Additional scores were derived from the Tennessee Self Concept Scale besides Total Positive Self-Esteem, but were not included in the present study. Next, z scores were computed for the independent variable scores and for a fourth organismic variable of sex. Sex was first coded -1.0 for females and 1.0 for males, then converted to a z score (-1.000 or 1.000 for use alone and in interaction scores in the regression analysis).

The first finding is that, as predicted, there were no significant differences between the self-esteem scores of males and females (t = 1.07, df = 310, N.S.). Mean scores on achievement motivations were also essentially equal for the male and female groups (t = 1.77, df = 310, N.S.). Inasmuch as higher scores indicate masculinity and lower scores indicate femininity on the Stereotype Questionnaire, the mean scores for males and females on the sex-role identification and sex-role preference should logically be different

and they were ($t_{\text{iden}} = 4.23$, $df = 310$, $p < .005$; $t_{\text{pref}} = 7.173$, $df = 310$, $p < .005$). Sex-role identification and sex-role preference scores were significantly different for the male group and for the female group ($t = 3.46$, $df = 151$, $p < .0$; $t = 7.70$, $df = 157$, $p < .0$). Moreover, both groups described a sex-role preference which is more "masculine" than the sex-role identification. This finding is in keeping with Foley's data (1974, Personal Communication). Like the present subjects, her subjects, both male and female, have tended to describe sex-role preferences significantly more "masculine" (i.e., higher scores on the Stereotype Questionnaire) than their sex-role identifications. Means, standard deviations, and t s are presented in Table 1.

Table 2 summarizes for the total sample of males and females, the product-moment correlations among the independent variables, achievement motivation, sex-role identification, sex-role preference and sex, and the dependent variable, self-esteem. With 312 cases, correlations of 0.113 are significant at the .05 level (two-tailed test). Significant positive correlations were obtained between esteem and achievement motivation, between esteem and sex-role identification, between achievement motivation and sex-role identification, between sex and sex role identification, and between sex and sex-role preference.

As expected for the total sample, self-esteem was positively related to both achievement motivation and sex-role identification. Since high scores on the Stereotype Questionnaire represent a more stereotypically masculine sex-role orientation, and low scores represent a more stereotypically feminine sex-role orientation, a positive correlation

Table 1

Means and Standard Deviations for Males and Females on all Variables

	Females		Males		<u>t</u>	Combined	
	<u>\bar{X}</u>	<u>SD</u>	<u>\bar{X}</u>	<u>SD</u>		<u>\bar{X}</u>	<u>SD</u>
Achievement Motivation	38.07	11.58	40.28	10.49	1.77	39.15	11.10
Sex-Role Identification	162.86	24.11	180.99	46.61	4.23*	171.75	37.94
Sex-Role Preference	180.96	17.18	194.85	17.02	7.17*	187.77	18.43
Self-Esteem	332.28	38.62	336.63	34.00	1.07	334.42	36.43

*p < .01

Table 2

Product-Moment Correlations Among Variables
for Combined Male and Female Sample^a

	1	2	3	4
1 Achievement Motivation				
2 Sex-role Identification	0.1400			
3 Sex-role Preference	0.0674	0.1096		
4 Sex	0.0098	0.2392	0.3772	
5 Self-Esteem	0.3001	0.2553	-0.0194	0.0518

^aWith 312 cases, correlations of 0.113 are significant at the .05 level (two-tailed test).

between esteem and sex-role identification indicates that as sex-role identification becomes more stereotypically masculine, esteem scores increase. Since the variable of sex was coded +1.000 for male subjects and -1.000 for female subjects, the positive correlations between sex and sex-role identification and between sex and sex-role preference simply express intuitively obvious relationships; namely that males tend to have comparatively more masculine sex-role identifications and sex-role preferences, while females tend to have comparatively more feminine sex-role identifications and sex-role preferences.

An examination of Tables 3 and 4 provides greater insight into the relative sizes and directions of correlations in the male and female groups. In both groups, as predicted, self-esteem and achievement motivation were positively and significantly correlated ($p < .05$); however, the r for females (.3770) is significantly larger than the r for the male group (.1908), suggesting that achievement motivation is an even more important component of self-esteem for the female subjects than for the male subjects in this sample ($z = 3.20$, $df = 150$, $p < .001$, two-tailed).

Two unexpected findings appear in the correlations between esteem and sex-role identification. It was predicted that for females esteem and sex-role identification would be negatively correlated; that is, other factors being equal, stereotypically more feminine subjects would tend to have greater self-esteem than stereotypically less feminine subjects. The obtained r is substantial (.4738) but in the opposite direction, indicating that the stereotypically less feminine or more masculine subjects have higher self-esteem. In the

Table 3
 Product-Moment Correlations Among Variables
 for Female Subjects Only^a

	1	2	3
1 Achievement Motivation			
2 Sex-role Identification	0.1562		
3 Sex-role Preference	0.0714	-0.1481	
4 Self-Esteem	0.3770	0.4738	-0.0732

^aWith 159 cases, correlations of 0.1591 are significant at the .05 level (two-tailed test).

Table 4
 Product-Moment Correlations Among Variables
 for Male Subjects Only^a

	1	2	3
1 Achievement Motivation			
2 Sex-role Identification	0.1118		
3 Sex-role Preference	-0.0130	0.1153	
4 Self-Esteem	0.1908	0.1408	-0.0124

^aWith 153 cases, correlations of 0.1591 are significant at the .05 level (two-tailed test).

male sample, the correlation was in the predicted direction, but was not significant (.1408). The correlation for females was significantly greater than the correlation for males ($z = 4.358$, $p < .001$, two-tailed). Thus, for this group a relatively more masculine sex-role identification was in males apparently less important to self-esteem, but in females more important than was originally expected.

A further interesting finding is in the relationships between achievement motivation and sex-role identification in both groups. Among the females there was a tendency ($p < .10$) for subjects with a more masculine sex-role orientation (i.e., higher scores) to obtain higher achievement motivation scores than subjects with a more feminine orientation ($r = .1562$). Among the males, however, the relationship, while positive, did not approach significance ($r = .1118$).

The results of the multiple regression analyses of self-esteem for the total sample of males and females combined are shown in Table 5. First the dependent variable, self-esteem was analyzed as a function of all possible main and interactive effects of sex, sex-role identification, and sex-role preference. The .001 level significant effects from this analysis are summarized in equation C-1. The coefficients for the main and interactive effects in all equations indicate the direction and magnitude of their respective contributions to the dependent variable. All coefficient values represent normalized z scores.

Equation C-1 indicates that achievement motivation and sex-role identification are both significant correlates of self-esteem. The positive sign of the sex-role identification coefficient means that

Table 5

Results of the Regression Analysis for the Combined
Group of Males and Females^a

Equation C-1

$$E = .3062 A + .1401 S_I \times S_P$$

(Multiple R = .4317)

(R square = .1863)

Equation C-2

$$E = .2725 A + .2478 S_I - .2375 S_I \times S_P$$

(Multiple R = .4501)

(R square = .2026)

Notation

E = Self-Esteem

A = Achievement Motivation

S_I = Sex-role Identification

S_P = Sex-role Preference

^aAll variables in these equations are normalized z-score coefficients and the significance of all effects is assessed at the .001 level.

higher (more stereotypically masculine) sex-role scores are significantly related to higher esteem scores regardless of the sex of subject. These data correspond to the simple correlations examined previously. The interaction effect ($-.237 S_I \times S_P$) of sex-role identification x sex-role preference bears some clarification. The sign indicates that an increment in the value of one score when coupled with a decrement in the value of the other score is reflected in an increment in esteem. Table 6 summarizes the additional information necessary to determine the actual characteristics of this interaction. The table contains the mean self-esteem scores for (1) masculine sex-role identification/masculine sex-role preference subjects, (2) masculine sex-role identification/feminine sex-role preference subjects, (3) feminine sex-role identification/masculine sex-role preference subjects, and (4) feminine sex-role identification/feminine sex-role preference subjects. The first comparison to note is that masculine identification subjects are higher in self-esteem than feminine identification subjects, regardless of the sex-role preference ($t = 2.55$, $df = 156$, $p < .05$). Moreover, there are no significant differences between masculine sex-role identification subjects having masculine versus those having feminine sex-role preferences ($t = .558$, $df = 153$, $p < .05$). There are also no significant differences between feminine identification subjects with masculine versus those with feminine sex-role preferences ($t = .096$, $df = 155$, $p < .05$). Apparently, individuals with a more traditionally masculine sex-role orientation maintain high positive self-esteem, whether they aspire to be more "masculine" (i.e., more decisive, aggressive,

Table 6

Means and Standard Deviations for Groups High and Low
in Sex-Role Preference and Sex-Role Identification

		Sex-Role Preference	
		Masculine	Feminine
Sex-Role Identification	Masculine		
	Mean	343.14	340.12
	S.D.	36.22	28.77
	N	106	49
	Feminine		
	Mean	326.18	325.60
	S.D.	35.76	34.23
	N	50	107

self-confident) or more "feminine" (i.e., gentler, more tactful, more sensitive to others' feelings). On the other hand, individuals with a more traditionally feminine orientation tend to have lower self-esteem whether or not they would like to be more "masculine" or more "feminine." Thus, the negative interaction coefficient for sex-role identification x sex-role preference implies that a masculine identification may be coupled with a more feminine sex-role preference, and still contribute significantly to self-esteem.

A second regression analysis of self-esteem was performed to explore the interactive effects of achievement motivation and sex-role identification only. Significant .001 level effects are summarized in Equation C-2. Main effects are the same ones as in Equation C-1, showing that achievement motivation and sex-role identification are significant correlates of self-esteem for the total sample. A new interaction appears in Equation C-2, namely, sex-role identification x achievement motivation. Again, the negative sign indicates that a relatively lower score in one factor when combined with a relatively higher score in the other factor is associated with a higher self-esteem score. Table 7 contains the self-esteem mean scores for the four groups involved in this interaction, namely, the high achievement motivation/masculine identification group, the high achievement motivation/feminine identification group, the low achievement motivation/masculine identification group, and the low achievement motivation/feminine identification group. Note that the highest mean self-esteem score belongs to the high achievement/masculine sex-role group, as might be expected from the significant main effects for those

Table 7

Means and Standard Deviations for Groups High and Low
in Achievement Motivation and Sex-Role Identification

		Achievement Motivation	
		High	Low
Sex-Role Identification	Masculine		
	Mean	347.55	333.91
	S.D.	33.54	33.23
	N	94	61
	Feminine		
	Mean	333.87	320.51
	S.D.	34.90	33.56
	N	62	95

two factors. However, the high achievement/feminine sex-role and the low achievement/masculine sex-role groups are essentially equal in self-esteem ($t = .007$, $df = 121$, N.S.), and are both significantly higher than the low achievement/feminine sex-role group ($t = 2.38$, $df = 155$, $p < .05$; $t = 2.45$, $df = 154$, $p < .05$). That suggests that although a relatively more masculine sex-role orientation is correlated significantly with self-esteem, nevertheless, a relatively feminine orientation may also be associated with position esteem, provided it exists with a high level of achievement motivation. Similarly, an individual who possesses a low achievement motivation may feel high self-esteem, provided that individual also has a relatively high or masculine sex-role orientation. Finally, as might be expected from the foregoing, individuals with both feminine identification and low achievement are lowest in self-esteem.

As the equations in Table 5 show, no significant main or interactive effects for sex were obtained in the analysis for the total sample. To provide greater insight into the comparative effects of the independent variables for males and females, separate regression analyses were performed for the two groups. Results of these analyses are summarized in Tables 8 and 9.

Table 8 contains the Equation M-1 for male self-esteem as a function of all significant main and interactive effects of achievement motivation, sex-role identification, and sex-role preference. In this analysis, sex-role preference yielded no significant effects. The significant effects are the same as those in Equation C-2 for the combined male and female group, namely, achievement motivation, sex-role

Table 8

Results of the Regression Analysis for Males

Equation M-1

$$E = .2366 A + .3386 S_I - .2975 A \times S_I$$

(Multiple R = .2926)

(R square = .0856)

Notation

E = Self-Esteem

A = Achievement Motivation

S_I = Sex-role Identification

Table 9

Results of the Regression Analysis for Females

Equation F-1

$$E = .4253 S_I + .3105 A$$

(Multiple R = .5644)

(R square = .3185)

Notation

E = Self-Esteem

A = Achievement Motivation

S_I = Sex-role Identification

identification, and an achievement x sex-role identification interaction. The equation indicates that for males, high achievement motivation and a masculine sex-role orientation are both significantly correlated with self-esteem.

The nature of the interaction between sex-role identification and achievement motivation for males can be elucidated through inspection of Table 10. The table contains the mean self-esteem scores for the four groups involved in the interaction, namely, (1) high achievement-masculine males, (2) high achievement-feminine males, (3) low achievement-masculine males, and (4) low achievement-feminine males. The low achievement-feminine group obtains a mean self-esteem score that is lowest of the four groups and significantly lower than the other three ($t = 3.08$, $df = 90$, $p < .05$; $t = 2.61$, $df = 74$, $p < .05$; $t = 1.95$, $df = 77$, $p < .05$; respectively for groups (1), (2), and (3) above). The negative coefficient of the interaction ($-.2975 A \times S_I$) indicates once more that a lower score in one factor when combined with a higher score in the other factor contributes significantly to self-esteem. Table 10 shows that the esteem scores for the low achievement-masculine and the high achievement-feminine groups are, in fact, effectively equal ($t = .427$, $df = 59$, N.S.). Therefore, a male with low achievement motivation can maintain high self-esteem if his masculine sex-role identification is fairly high. Similarly, a male with a more feminine sex-role orientation can preserve a good level of self-esteem, provided his achievement motivation is high. Interestingly, the high achievement-masculine group is not significantly different in self-esteem from either the high achievement-feminine

Table 10

Means and Standard Deviations for Male Groups High and Low
in Achievement Motivation and Sex-Role Identification

		Achievement Motivation	
		High	Low
Sex-Role Identification	Masculine		
	Mean	344.34	343.17
	S.D.	30.04	30.24
	N	45	29
	Feminine		
	Mean	339.50	323.36
S.D.	37.78	34.91	
N	32	49	

males nor the low achievement-masculine males ($t = .600$, $df = 75$, N.S.; $t = .149$, $df = 72$, N.S.). This suggests that in males the combination of high achievement motivation with a masculine orientation may represent a reduction in self-esteem somewhat below what might be expected from the simple main effects for achievement motivation and masculine identification.

Equation F-1 of Table 9 summarizes the results of the regression analysis of female self-esteem as a function of achievement motivation, sex-role identification, and sex-role preference. As in the male group analysis, achievement motivation and sex-role identification are both significant correlates of self-esteem. Whereas the factors of achievement motivation and sex-role orientation combine in more than an additive fashion in the male group (as indicated by the interaction coefficient), the same factors combine in purely additive fashion for females.

Again, the nature of the differences among groups was probed using t tests. Table 11 contains the mean self-esteem scores for (1) high achievement-masculine females, (2) high achievement-feminine females, (3) low achievement-masculine females, and (4) low achievement-feminine females. Contrary to expectations, the highest esteem score was obtained by the high achievement-masculine group, and their mean score was significantly higher than each of the other three groups ($t = 2.79$, $df = 78$, $p < .05$; $t = 2.95$, $df = 74$, $p < .05$; $t = 4.39$, $df = 99$, $p < .05$; respectively for groups (2), (3), and (4) above).

In addition and again contrary to hypotheses, neither the group high in achievement motivation and feminine in sex-role orientation nor the

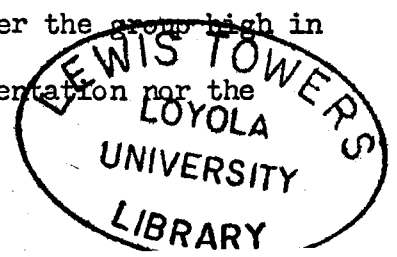


Table 11

Means and Standard Deviations for Female Groups High and Low
in Achievement Motivation and Sex-Role Identification

		Achievement Motivation	
		High	Low
Sex-Role Identification	Masculine		
	Mean	349.75	325.29
	S.D.	36.77	33.34
	N	49	27
	Feminine		
	Mean	329.10	318.46
S.D.	29.03	34.98	
N	31	52	

group low in achievement motivation and masculine in orientation received significantly higher esteem scores than the low achievement-feminine group. Thus for females, high achievement motivation does not appear to be sufficient to offset the effects of a feminine sex-role identification on self-esteem. By the same token, a strong masculine sex-role identification is not adequate to bolster up the self-esteem of females with low achievement motivation. Both factors together, that is, high achievement motivation and a relatively more masculine identification are apparently necessary to produce optimal feelings of self-esteem in these females.

CHAPTER IV

DISCUSSION

While the mean self-esteem scores for males and females were essentially equal, the pattern of significant correlates of self-esteem differed significantly between the groups.

It was hypothesized that males with higher, more stereotypically masculine sex-role scores would tend to have higher self-esteem than would males with lower, less masculine sex-role scores. A positive relationship was also hypothesized between achievement motivation and self-esteem in males. Both hypotheses were supported. An interaction between sex-role identification and achievement motivation was also found, but it did not take the expected form. It was hypothesized that the low achievement-masculine males would be higher in self-esteem than high achievement-feminine males. In fact, the two groups were equal in esteem, suggesting that a high level of either factor, achievement motivation or masculine identity, can moderate the negative effects of a low level in the other factor in males. Thus, a masculine sex-role orientation was not so powerful a component of self-esteem in males as originally expected. Perhaps this is an indication that in young adulthood males come to rely less heavily on the masculine stereotype for enhancement of self-esteem than they do in early adolescence. It may also be a sign that the times are changing, and with them the more exaggerated stereotypes of male-ness and female-ness.

Based on the predicted and obtained significant correlations of both achievement motivation and masculine sex-role identification with self-esteem in the male group, it would have been expected that males high in both achievement motivation and masculine identification would yield the highest esteem scores. Yet this group's mean self-esteem was not significantly different from either the high achievement-feminine males or the low achievement-masculine males. It seems that extreme levels of achievement motivation and masculine identification result in a slight decrement in self-esteem of male subjects. When one remembers that the very highest scores on the Stereotype Questionnaire can only be achieved by totally rejecting most of the feminine-valued items (e.g., "Enjoys art and literature very much," "Very gentle," "Easily expresses tender feelings," etc.) in order to endorse the masculine pole of those items (e.g., "Does not enjoy art and literature at all," "Very rough," "Does not express tender feelings at all."), one forms an impression of a rather rigid individual with little softness or sensitivity. Even individuals who admire the stereotypically masculine male usually also appreciate at least some of the stereotypically feminine traits, such as gentleness or tact. Therefore, a male who shows none of these traits would very likely receive less reinforcement from others than a male who possesses some of the traits to some degree. The extremely "masculine" male could thus suffer a slight loss of self-esteem.

A further hypothesis could be that extreme levels of achievement motivation and masculine identification, like many other behaviors when carried to an extreme, might represent a defensive maneuver in

response to a relatively weak self concept. This hypothesis could be evaluated by determining the level of psychopathology or, alternatively, the level of adjustment in individuals with extreme scores in achievement motivation and masculine orientation.

Statistical analysis of the female data also produced some unexpected results. The positive correlation between achievement motivation and esteem was not only significant, it was also significantly greater than the corresponding relationship in the male group. This difference was not anticipated. Secondly, while the correlation for females between sex-role identification and esteem was significant, it was not in the expected direction. Females with higher, comparatively less feminine or more masculine identification tended to obtain higher esteem scores than the stereotypically more feminine females. Furthermore, this positive correlation between the more masculine sex-role orientation and self-esteem in females was also significantly larger than the same correlation for male subjects.

When female subjects were divided into high achievement-masculine, high achievement-feminine, low achievement-masculine, and low achievement-feminine groups, the pattern of significant correlates of self-esteem for females became clearer. It was hypothesized that females high in achievement motivation, with feminine sex-role identification would be highest in self-esteem. But, in fact, the group with highest esteem was that composed of high achievement-"masculine" subjects. Furthermore, females strong in either one trait or the other, that is, high achievement-feminine or low achievement-masculine females, were not significantly higher in esteem than the lowest esteem group of all,

namely, the low achievement-feminine group. Thus, unlike the male group, in females a high level of either achievement motivation or masculine identification was not sufficient by itself to counteract the negative effects of a lower level in the other trait. It appears that the enhancing effects of positive levels of these traits are more powerful and the detrimental effects of negative levels are more harmful in female subjects than in male subjects. Not only does the traditionally feminine orientation tend not to foster self-esteem in young college females, but apparently even a high achievement motivation is not sufficient to improve the esteem of stereotypically feminine subjects.

One can scarcely help being struck by the implications of these findings. They imply, as Connell and Johnson (1970) suggested, that the masculine stereotype has greater reward value than the feminine stereotype, regardless of whether it is adopted by a male or a female. The findings further imply, however, that the female cannot, as Connell and Johnson suggested, adopt either a masculine or a feminine orientation without seriously affecting her feelings of self-esteem. Adoption of the feminine orientation may have serious negative consequences for self-esteem in females, more serious than was previously thought. Rosenkrantz et al. (1968) concluded from their study of male and female college students' self-perceptions in relation to their perceptions of sex-role stereotypes, that in comparison to men, women hold negative values of their own worth. The authors remarked that the factors leading to the incorporation of the female stereotype with its negative valuation into the self-concept of female

subjects must be enormously powerful. From the present results it could be concluded that the negative aspects of the female stereotype are dire enough that many females prefer to risk the censure involved in failing to conform to the prescribed feminine norm. By the same token, the reward value of the male stereotype is evidently worth the risk.

This discussion has thus far treated the relationships between achievement motivation and esteem, and sex-role identification and esteem, as if certain levels of the two factors cause or contribute to development of positive esteem. The converse must also be considered. Strong positive self-esteem may enable an individual to adopt an attitude or orientation which runs counter to societal expectations. More specifically, high esteem may give a female the psychological strength to reject the feminine stereotype or aspects of it. Both perspectives are plausible and future research might attempt to validate one or the other. As a matter of convenience in the present discussion, however, the treatment of self-esteem as a dependent variable will be continued.

Thus a pattern emerges of relative masculinity and high achievement motivation as significant components of self-esteem for both males and females. The results, while different from Connell and Johnson's (1970) findings do not completely contradict their conclusions. They found the positive relationship between sex-role identity and esteem only for early adolescent males. No such relationship was obtained for early adolescent females. Several possible explanations for this difference and for the difference between the two

studies suggest themselves.

First, early adolescent boys are often observed to be more concerned with the stereotypically male behaviors and appearances than are early adolescent girls with stereotypically female traits. For example, one more often sees boys of this age demonstrating exaggerated "tough guy" language and mannerisms, and interest in "hot cars" and athletics, than one sees girls demonstrating language and interests exaggerating their girl-ness. Adolescents' differential childhood history of reinforcements, parental and otherwise, can explain a good deal of the discrepancy. During childhood, the range of acceptable sex-role behaviors is apparently broader for girls than for boys. The fact that parents are more upset when their little boys are "sissies" than when their little girls are "tomboys" may provide some understanding of why adolescent males are somewhat more concerned with the male stereotype than are adolescent females with the female stereotype.

Pursuing the hypothesis that the primary factors contributing to self-esteem are feelings of competency, and valuing by significant others, it would follow that if boys are more rewarded by important others for masculine behaviors than the girls for feminine behaviors, a masculine sex-role orientation would be more important to boys' self-esteem than would a feminine orientation for girls'.

Secondly, between the time when Connell and Johnson collected their data (1968) and the time when the present data were collected (1973) popular awareness of sex-role stereotypes has increased markedly. Women (including adolescents) are rejecting many aspects of the traditional feminine stereotype and adopting or aspiring to adopt a

more active, self-sufficient, competent feminine image. Evidence for this can be seen in advertising, in the formation of women's organizations, in the choice of growing numbers of unmarried women to raise their children alone. Today it is perceived as less attractive for a woman to be helpless, dependent, indecisive than it might have been five years ago before the Women's Movement had begun to raise public awareness. Broverman, Broverman, Clarkson, Rosenkrantz and Vogel (1970) predicted and found that characteristics judged healthy for an adult, sex unspecified, which are presumed to reflect an ideal standard of health, resemble behaviors judged healthy for men, but differ from behaviors judged for women. Their subjects were 79 functioning clinicians, male and female. It is the present author's opinion that women are increasingly striving to be competent, self-sufficient, mentally healthy adult people, rather than mentally healthy adult females.

In the present study, more masculine scores on the Stereotype Questionnaire were highly correlated with self-esteem in the women, even more than in the men. The relatively lower correlation found between sex-role identification and self-esteem in male subjects may mean that as males become older, they too alter their sex-role standards, and come to place greater value on such "feminine" qualities as gentleness, tact and sensitivity to others' feelings. Indeed, the college male juniors and seniors tested by Foley (1974, Personal Communication) over the past two years at Loyola University have consistently obtained lower scores on the Stereotype Questionnaire than did the freshman males in the current study, indicating a continuing

tendency with maturity and experience to relax the rigid masculine stereotype of adolescence and become more flexible.

The results of the present study suggest that both young adult males and young adult females need certain stereotypically masculine traits for optimal self-esteem, in particular, the traits which comprise self-sufficiency, autonomy, competence, and mastery, etc., since these are the sorts of traits incorporated in the male-valued items of the Stereotype Questionnaire.

A useful way of looking at the traits that make up the male and female sex-role stereotypes is to separate them into "productive" and "non-productive" traits, that is, characteristics which are valuable or instrumental to good adjustment or mental health (e.g., "Can make decisions easily" or "Easily expresses tender feelings") and those which merely stereotypically define or discriminate the sexes (e.g., "Likes war movies" or "Likes frilly clothes") but whose value for psychological adjustment is questionable at best. The breakdown of sex-role traits into productive and non-productive types has been suggested by Johnson (1974, Personal Communication), but supports a line of reasoning explored by others to show that of the traits constituting societal sex-role stereotypes, male traits are more often judged socially desirable than female traits. Johnson suggested that the productive male stereotype traits tend to focus more on competence, mastery and active problem-solving, while the productive female traits tend to focus on receptivity, passivity, compromise, etc.

Broverman et al. (1970) asked mental health professionals to describe a "mentally healthy adult male," a "mentally healthy adult

female," and a "mentally healthy adult" (sex unspecified). These psychologists, psychiatrists, and social workers tended to describe the mentally healthy adult male and mentally healthy adult person in similar terms, while the mentally healthy adult female was described in significantly less healthy terms compared to the other two. The results confirmed their hypothesis that a double standard of health exists for men and women, that is, the general standard of health is actually applied only to men, while healthy women are perceived as significantly less healthy by adult standards.

Similarly, of the 41 bipolar, masculine-feminine items on the Stereotype Questionnaire, Rosenkrantz et al. found that 70% were male-valued (the masculine pole was judged more socially desirable) and 30% were female-valued (the female pole was judged more desirable).

Thus, little girls are groomed for and to a greater or lesser extent are judged by a sex-role standard incorporating relatively undesirable, less valued characteristics in comparison to boys. It would seem that the male sex-role stereotype could satisfy for males both the need for feelings of competence and the need for valuing since it promotes self-sufficiency and competence strivings, and since conformity to the accepted role would result in social reinforcement by others. On the other hand, the female role would seem to satisfy for females primarily the need for valuing by significant others, and to a much lesser extent the need for competence.

If it is true that the two essential components of self-esteem in all human beings are a sense of competence, and valuing by important others, the question then arises: how do females achieve self-esteem

under the situation just described? Given that self-esteem does not differ significantly between males and females, we must assume that females are meeting both of those needs. The present data indicate that achievement motivation and a relatively more masculine sex-role orientation contribute to self-esteem in females². Quite possibly these correlations tap only the competency needs of males and females, and not the valuing needs. Valuing may be given by significant others for, among other things, conforming to the appropriate sex-role, including the non-productive sex-role traits. It has long been taught in psychology classes, but by no means yet proved (or disproved), that appropriate sex-role identification is necessary to adequate adjustment, and by implication, to positive self concept. This means, presumably, identification with all important aspects of the sex-role, both productive and non-productive. Then, how do females achieve feelings of competency or achievement, if the feminine sex-role stereotype does not encourage active mastery, aggressive achievement, etc.? Although a thorough exploration of this question exceeds the scope of the present paper, several hypotheses can be offered.

One possibility is that some women "cross over" to male sex-role, so to speak, and adopt those characteristics which will promote competency feelings, while still retaining the productive and non-productive feminine characteristics necessary to feel and be perceived by others as "womanly." For example, a woman can be ambitious, achievement-oriented, decisive, calm in a crisis, etc., while also being gentle, sympathetic, persuasive, or whatever. Stein and Bailey (1973) point out that some women try to compensate for their "masculine"

achievements by striving to be "super-feminine" in appearance and personality.

Another means of combining competency and femininity used by many women is to choose a "feminine" occupation, such as teaching, nursing, social work and other helping professions. It is well known that a disproportionately large number of women fall into careers involving traditionally feminine activities: working with children, caring for the sick, helping people. Their choices are, of course, strongly influenced by the opportunities and barriers which women encounter in the job market. Many male-dominated fields such as engineering have been either closed to women or difficult to enter, because of male-oriented admissions and hiring practices, and powerful negative sanctions against women who succeed in entering such a field. On the other hand, the internal needs of women to conform to their own image of an adequate and feminine woman, that is, their own sex-role identification, has undoubtedly been an important factor in their avoiding "masculine" careers.

Further solutions to the conflict between the need for masculine competence and the need to be valued as feminine include belittling or concealing ones' accomplishments (Horner, 1972) or reducing ones' efforts, especially when placed in competition with males (Weiss, 1962).

Whether any of these solutions is completely satisfactory is open to question. Settling for achievement goals which are to some extent beneath one's talents or abilities must result in some frustration. But adopting goals or characteristics which although congruent with one's abilities, elicit negative reinforcement from one's associates must also

produce internal conflict. Horner (1972) has shown that a significantly high proportion of college women manifest an apparent "fear of success" in competitive situations with males. In a longitudinal study of college women, Angrist (1970) found that 36% of the career-oriented seniors had sought counseling, compared to only 15% of the non-career seniors. She found no significant correlations, however, between career lifestyle aspirations and college maladjustment. She suggested that while career-aspiring females may show personality differences and may experience more conflict in comparison to their more traditionally feminine counterparts, they do not necessarily show more personality maladjustment.

Some females manage to assimilate the apparent conflict between "masculine" competence and femininity needs more easily than others. A study by Lesser, Krawitz, and Packard (1963) suggested that high school females who achieved well in school considered school achievement more sex appropriate than underachievers did. And Lipman-Blumen (1972) found that women with non-traditional sex-role concepts had higher educational aspirations and tended to rate their own achievements (in comparison to their husband's) as more important than did women with more traditional sex-role concepts.

Finally, while frequent reference is made to the cliché that "nobody (especially no man) likes a competent (brainy, achieving, etc.) woman," there is some empirical evidence that this is not always the case. It may be instead that people do not resent the presence of male-productive traits in women, but rather they dislike the absence of either the female-productive, or the female-non-productive traits,

or perhaps both. Spence and Helmreich (1972) had 264 male and 343 female college students view one of four videotaped versions of a "female stimulus person" being interviewed. The stimulus person was portrayed as either a competent or an incompetent individual, with either masculine or feminine interests. The subjects rated the stimulus person on several characteristics including likability. Female subjects and male subjects both significantly preferred the masculine-competent woman. Male subjects liked the masculine-incompetent woman least. For this group of 600 college students at least, competency in a woman was perceived as an attractive attribute.

These studies suggest that the concepts of masculinity and femininity do not constitute a single bipolar dimension, but are more likely two separate dimensions, and that "masculine" does not necessarily mean "not feminine," nor does "feminine" mean "not masculine." Constantinople's (1973) review of research on tests of masculinity-femininity provides a good summary of the evidence supporting the two-unipolar-dimension theory. Stein, Pohly, and Mueller (1971) also measured masculinity and femininity as separate dimensions rather than as opposite poles of one dimension and found zero-order correlations between the two.

The fact that achievement motivation and an identification with the masculine sex-role were positively and significantly related to self-esteem in both males and females leads to the question of the generalizability of the findings. If characteristics of the masculine sex-role stereotype are essential for optimal self-esteem in subjects such as these, would the same relationship hold for homosexual subjects?

It is likely that a difference would be found between individuals who simply prefer members of the same sex as romantic and sexual partners, without themselves preferring to assume the role of the opposite sex, and individuals who clearly prefer to assume the role of the opposite sex. One may expect the former to conform to the pattern of the present, predominantly heterosexual group, while the latter might produce divergent results. Studies of such questions would help to expand our understanding of the development and maintenance of positive self concept.

It should be repeated that virtually all tests of masculinity-femininity including the one used in this study are susceptible to faking and to social desirability responding. The possibility that scores were somewhat exaggerated by subjects' perceptions of what should be the socially desirable responses for males and females must be acknowledged as one limitation of the study which probably could not be avoided.

The present results can best be generalized to populations of similar characteristics, that is, predominantly white, middle-class, Catholic, first-year college students. Older, non-parochial, non-student samples might well yield different results, as might all-black samples or samples drawn from lower and/or upper socio-economic strata. More data is clearly needed to determine the necessary and sufficient components of optimal self-esteem in males and females. However, the present study provides a useful contribution to this area, as well as providing an indication of the changing sex-role perspectives of young men and women in college.

CHAPTER V

SUMMARY

A study of the relationship of achievement motivation and sex-role identification to self-esteem in male and female college students was made. Although males and females obtained equivalent self-esteem scores, the relative contributions of the two independent variables differed in the two groups. As predicted, achievement motivation was a significant correlate of esteem for both males and females; however, the relationship was significantly stronger for females than for males. It was also hypothesized that a positive relationship would be found between a relatively more masculine sex-role identification and self-esteem for males, and between a relatively more feminine sex-role identification and self-esteem for females. A significant direct correlation was obtained for both females and males between the stereotypically masculine orientation and esteem. The results were discussed in terms of changing sex-role perceptions and the need in both males and females for feelings of competency which are traditionally expressed through the male stereotype.

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FOOTNOTES

¹Since the present data were collected, the author has learned of the Wellesley Role-Orientation Scale (Alper, 1973) which seems to correct two of the problems of previous tests, "obviousness" of content to subjects (see Bieliauskas, Miranda, & Lansky, 1968) and the reliance on a single score to represent an individual's sex-role preferences. Content of the WROS is apparently more subtle than is often the case with M-F tests. Also three aspects of role preference are tapped: feminine versus masculine traits; role activities; and typically male-dominated career activities. Correlations in the expected direction have been obtained by Alper between the WROS and the Stereotype Questionnaire.

²The more "masculine" sex-role orientation of these females is, of course, relative to other females. The mean sex-role identification score for females is 15 points below (more feminine) than the mean sex-role identification score for males (see Table 1).

³The terms "independent variable" and "dependent variable" are used as a matter of convenience and are not intended to imply a cause-and-effect relationship.

APPROVAL SHEET

The thesis submitted by Anne B. Stericker has been read and approved by the following Committee:

Dr. James E. Johnson, Director
Associate Professor, Psychology, Loyola

Dr. Thomas P. Petzel
Assistant Professor, Psychology, Loyola

The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the Committee with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Arts.

May 19, 1974
Date

James E. Johnson
Director's Signature