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AN ABSTRACT OF THE JOINT THESIS OF Joan Dayger Behn and Barbara McDuffee Mecca for the Master of Arts in Psychology presented November 19, 1974.

Title: An Investigation of Possible Relationships
between Sex-Role Orientation, the Motive to
Avoid Success and the Inhibition of Aggression
in Women.

APPROVED BY MEMBERS OF THE THESIS COMMITTEE:

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In this study, it was proposed that the extent to which an individual accepts the collection of attitudes, mannerisms, and abilities the culture endorses as being feminine or masculine (which we are referring to as sex-role orientation) is related to the appearance of inhibiting fears of social rejection and uneasiness about one's femininity (which we refer to as the need or motive to avoid success). We further hypothesized that women

interested in achievement, being less strongly sex-typed, would feel deviant and exposed as women and would be likely to place a premium on the maintenance of other feminine attributes.

Ever since Freud's time, the suppression of aggression has been identified as the very essence of femininity. This pinpointing of aggression as a particularly differentiating quality between male and female has been maintained by some to the present. We proposed that this particularly feminine quality (which we refer to as fear of aggression) would appear more strongly in masculinely-oriented women.

Horner proposed in her original study that the Motive to Avoid Success is a psychological barrier to achievement in women. When aroused, the motive to avoid success is a most effective suppressant of performance in a competitive situation (especially if the competitor is masculine). This finding raised the suspicion in our minds that it might be the aggressive qualities inherent in competition that makes it seem especially incompatible with femininity. The aggressiveness of competition, of course, resides in the implicit set to defeat another person, to overpower an adversary, and to gain the psychological advantage. In order to obtain a high grade or graduate with distinction or secure the best job, you must defeat a peer.

We hypothesized finally, that not only would fear of

aggression and Motive to Avoid Success (M-S) each be related to sex-role orientation, but that these two inhibitors would be positively correlated with each other.

Our Ss were 173 white college women from introductory psychology classes at Portland State University. To test our hypotheses that inhibition of aggression and Motive to Avoid Success would each be related to an individual's sex-role orientation, we used the following measures: The Gough femininity-masculinity scale and Franck Drawing Completion test to assess manifest and latent levels of M-F respectively; Horner's thematic cues to elicit Motive to Avoid Success; and a tachistoscopically-presented series of visual stimuli to assess the Sstendency to inhibit aggression.

Results indicated that fear of aggression is related to sex-role orientation in the expected direction, i.e., more masculinely-oriented women appear more likely to suppress aggression.

The M-S was also related to a particular constellation of sex-role orientations but not the expected set. Unlike the fear of aggression, high M-S was related primarily to those individuals who held masculine orientations at the manifest level only.

Considering that both M-S and fear of aggression were related to masculine orientations in women, it was puzzling that these two measures were negatively correlated.

AN INVESTIGATION OF POSSIBLE RELATIONSHIPS BETWEEN
SEX-ROLE ORIENTATION, THE MOTIVE TO AVOID SUCCESS
AND THE INHIBITION OF AGGRESSION IN WOMEN

by

JOAN DAYGER BEHN and BARBARA McDUFFEE MECCA

A Joint Theses submitted in partial fulfillment
of the requirements for the degree of

MASTER OF ARTS
in
PSYCHOLOGY

Portland State University

1974

Further research is suggested to clarify the finer discriminations of traits which evidently contribute to this unexpected result.

TO THE OFFICE OF GRADUATE STUDIES AND RESEARCH:

The members of the two committees approve the joint thesis of Joan Dayger Behn and Barbara McDuffee Mecca presented November 19, 1974.

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November 19, 1974

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Without the active substantive and emotional support of my husband, Axel, and my children, Robin and Natalie, this would not have been possible.

JDB

I wish to express my appreciation to each of my children, Meg, Deborah, Nancy and Sara for their support, interest and especially their encouragement. Without their very reliable help and contributions this task would have been very difficult indeed.

BMM

TABLE OF CONTENTS

	PAGE
ACKNOWLEDGMENTS.....	iii
LIST OF TABLES.....	vi
LIST OF FIGURES.....	vii
CHAPTER	
I INTRODUCTION, STATEMENT OF BACKGROUND AND FORMULATION OF THE PROBLEM.....	1
II METHODS AND PROCEDURE.....	16
Subjects.....	16
Procedure.....	18
Sex-role Measures	
Gough.....	19
Franck.....	20
Sex-role orientation.....	23
Motive to Avoid Success.....	24
Fear of Aggression.....	25
Tachistoscope Perception Task.....	27
III RESULTS.....	29
Franck.....	29
Gough.....	30
Sex-role orientation.....	31
Tachistoscope.....	32

CHAPTER	PAGE
III RESULTS	
Motive to Avoid Success.....	35
Interrelationships.....	36
IV DISCUSSION.....	41
BIBLIOGRAPHY.....	49
APPENDIX.....	55

LIST OF TABLES

TABLE		PAGE
I	Average recognition thresholds for each picture for the two threshold groups....	33
II	Average recognition thresholds for grouped data for each of the two hypothesis groups.....	34
III	Test of significance of difference between various groupings of the sex-role orientation cells.....	35
IV	Means and standard deviations of M-S scores for nine sex-role groups in increasing order of size of mean scores.....	37
V	ANOVA of difference between means of M-S between the nine sex-role groups.....	37
VI	M-S differences tested with the t statistic.....	38
VII	Possible interrelationships of the experi- mental measures investigated with the use of Pearson's Product Moment.....	40

LIST OF FIGURES

FIGURE		PAGE
1	Age distribution of subjects.....	16
2	Marital status of subjects.....	17
3	Level of father's education.....	18
4	Nine sex-role groups as derived for Franck and Gough test score distributions.....	23
5	Distribution of Ss Franck scores.....	29
6	Distribution of Ss Gough scores.....	30
7	Sex-role orientation distribution.....	31
8	Distribution of selected 36 Ss in the six sex-role cells of main interest....	32
9	Distribution of M-S scores.....	36
10	Speculative comparison with Kagan & Moss' results.....	43

CHAPTER I

INTRODUCTION

Achievement behaviors in women have received particular attention in recent years because of governmental concern with sexual discrimination, the efforts of women's liberation groups, and the publicity given to both in the mass media. Proponents of a new emancipation for women focus such concern mainly on college women as the most able to meet the skill requirements of an advanced industrialized society and greatly expanded recruitment of college women into the professions has been undertaken.

We were interested in possible relationships between two dimensions of femininity...(manifest and latent sex-role orientations)...., the motive to avoid success, and fear of aggression in women. We hoped to find correlations between sex-role conflict, success phobia, and aggression conflict. Our interest springs from women's substantially lower level of achievement in "almost any area of intellectual activity where achievements can be compared -- books and articles written, artistic productivity, and scientific achievements." (Maccoby, 1966).

Recruitment and a changed official position, however, can be less than effective. A report from a five-year

study of student nurses at San Francisco Medical Center, University of California, suggests that deliberate efforts to encourage women toward graduate work, attitudes of leadership, and an orientation to play an innovative role in the development of their profession, are not effective. (Davis & Olesen, 1965). These researchers state that "overly rationalistic" efforts are not adequate and note that young college women are, including the most intellectually gifted among them, "peculiarly resistant" to urgings that they prepare themselves for higher academic or professional pursuits. An actual decline in professional aspirations was detected from entry to graduation five years later! It would appear that women's lack of achievement cannot be rectified by a simple change in social policy. The authors conclude that greater attention needs to be paid to the varieties of psychological forces that shape the role of women in American society.*

Although achievement is a central value in our culture, and behaviors related to the prediction of

*The criticism has been made that these particular young women, student nurses, have entered a traditionally and predominantly female profession and that women in such fields are rarely career committed. However, some researchers (Horner, 1972b; Schwenn, 1970; and Horner & Rhoem, 1968) have found that the less sex-stereotyped, more highly career motivated and intellectually capable a woman is, the higher are her fears of social retaliation and the more likely she is to adjust her aspirations downward. The same decline in professional aspirations found in student nurses in 1965 is also found at Radcliffe in 1972.

achievement have a substantial history of study within academic psychology, this complexly motivated behavior is not understood as it is manifested--or not manifested--in women. A series of studies, using the Thematic Apperception Test (TAT) as a measure, have resulted in a theory base for achievement and an instrument for assessing motivation and predicting behavior. The measures that have evolved are: Need for achievement (n-Ach), need for affiliation (n-Afil), and fear of failure (n-F). According to theories developed by McClelland, Atkinson and others, a person's behavior in any given situation can be predicted if these elements and their relative strengths are known. This body of data has been useful in understanding and predicting male behavior but has given essentially no results in connection with women's behavior. This is most startlingly illustrated by perusing Atkinson's 800-page tome, Motives in Fantasy, Action, and Society that reports findings on male subjects only. A footnote explains that reported studies were either done on male subjects only or, in those cases where women were included in the experimental population, the female results were thrown out because they were so conflicted as to be unusable.

A measure of high n-Ach assessed by way of the amount of achievement imagery present in stories written in response to TAT stimuli, usually is correlated with achievement behavior in men. This same measure does not

correlate with achievement behavior in women. Under competitive conditions a measure of n-Ach proves to be unreliable even with men unless a measure of n-Afil is also taken. With this additional measure one is able to predict achievement behavior in different situations--when the subject is working alone and when the subject is working in competition with another person. A man with a high n-Ach and a high n-Afil will perform at a high level on a solitary task, but on a competitive task there will be a drop in performance not found with a man who has a high n-Ach but low n-Afil. Still, this additional refinement does not account for the performance of women nor does a measure of fear of failure (n-F).

Many investigators in the recent past have attempted to shed light on the problem of understanding achievement as it is expressed or not expressed in women, usually with little success. Fontana (1970) suggested that a condition of achievement-oriented arousal evokes, in women, not only the motive to achieve, but also motives which disrupt achievement. But she was not able to isolate these motives. Iannotti (1971) attempted to find differences among low, medium, and upper academic achievers using the College Characteristics Questionnaire (CCI) and the 16 Personality Factor Questionnaire (16 PF). She was only able to conclude that any differences seem to be due to non-cognitive factors other than those measured by the

16 PF and the CCI.

A study conducted at Hunter College by Lesser et. al. (1963) did isolate one difference between achieving and underachieving women. When exposed to TAT stimuli, the achievers evidenced increased n-Ach in response to pictures with female main characters while the underachievers evidenced increased n-Ach in response to male pictures. The author interpreted this to mean that achieving women perceive intellectual goals as a relevant part of their own female role, but underachieving women perceive intellectual achievement goals as more relevant to the male role.

Using this finding as a cue, Lipinski (1965) tried to relate sex-role orientation to achievement. Her main thesis was that college women with various sex-role orientations, defined in terms of manifest and latent masculinity-femininity, would respond differentially to conditions of achievement arousal. To measure sex-role orientation Lipinski used categories developed by Lansky (1961) in which the Franck Drawing Completion Test (Franck DC) is given to assess latent sex-role orientation and the Gough Brief Test of Femininity (Gough) is used for a measure of manifest orientation.

Lipinski expected that women with a manifest masculine orientation would demonstrate an increase in n-Ach under arousal -- the typical pattern. Contrary to

expectations, the greatest increase was found in the feminine oriented women and strongly masculine women actually showed a decrement from the neutral condition. Lipinski concluded that a measure of sex-role orientation and conflict was a relevant consideration in predicting women's behavior (if not in the direction she predicted) and should be studied further. She also postulated post hoc the possibility of a success phobia noting a prior finding that women who measure high in n-Ach prefer and do better in classes low in achievement cues (McKeachie, 1961). Success phobia might be an inability to cope with intense competition with its "overtones of hostility".

Horner (1968a) suggests that an additional motive be assessed by the TAT procedure which she identifies as being the "need to avoid success" (n--S). In her study of 90 women and 88 men, Horner took measures of n-Ach, n-Afil, n--F, and n--S. She followed this assessment with measurements of performance under competitive and non-competitive conditions. For male subjects, her results supported past findings, that is, men as a group perform at higher levels under competitive conditions; a measure of n-Ach is related to performance in non-competitive conditions; men with both a high n-Ach and high n-Afil show a decrement in performance in the competitive condition. For her female subjects, Horner's results were also congruent with past findings -- they were ambiguous and inconclusive -- until the n--S was

considered. This was the only variable significantly related to the performance of women. The need to avoid success was found to be present in a large number of tested women (68%) but in only 8% of the male subjects. This is a highly significant difference ($p .0005$).

Horner believes that the motive to avoid success is composed of two fears: (1) the threat of social rejection and (2) loss of one's own sense of self-esteem in regard to gender identity. But why -- in a culture that is strongly achievement oriented, that prepares boys and girls in the same educational system, and has specifically isolated increased feminine participation as a national goal since the National Manpower Council (1957) -- should women fear social rejection and loss of femininity?

Tracing what has been historically viewed as feminine behavior and characteristics we find that Freud (1933) stated that the essence of femininity was repression of aggression. This attitude is maintained by Deutsch (1944) who further clarified it by adding that women can achieve intellectually only through the loss of valuable feminine qualities. Margaret Mead supports this refinement (1949), "...each step forward in work as a successful American... means a step back as a woman..." This has been maintained until at least 1966 when we find Maccoby stating that the girl who maintains qualities of independence and the active striving necessary for intellectual mastery, defies

the conventions of sex-appropriate behavior and must pay a price: "a price in anxiety". It is from Maccoby that we get a familiar quote that many women feel accurately expresses their dilemma:

Nobody objects to a woman's being a good writer or sculptor or geneticist if at the same time she manages to be a good wife, a good mother, good-looking, good-tempered, well dressed, well-groomed and unaggressive.

For each society there may be several convenient social definitions of masculinity and femininity. A particular individual within that society may or may not conform to some social definitions of sex-role identity and experience a correlated low or high anxiety level. In our society many are now prepared to accept and in fact are actively encouraging a change in the female sex-role stereotype (on the explicit level). This new behavior, however, is a deviance from tradition, a form of risk-taking, and puts a premium on the maintenance of other feminine attributes. It is our hypothesis that one of these attributes, the suppression of aggression, makes it particularly difficult for women to express the now-lauded achievement behaviors because there is a certain amount of aggressiveness involved in the very competitiveness required to reach high levels of achievement in our society.

Several researchers have noted that aggression is treated differentially in boys and girls by their parents. Sears (1961) noted with five-year olds, that boys were

permitted to be more aggressive than girls and that by age 12, girls are more disturbed over aggressive behavior than boys. In a later extensive study of nursery school children and their parents (Sears, Rau & Alpert, 1965) evidence was found that parents, whether consciously or not, create different overall strengths and styles of aggression in the two sexes. Boys display significantly more antisocial aggression (direct physical attack, direct verbal attack, injury to objects, and mischief) than girls, while girls show slightly but not significantly more prosocial aggression (verbal disapproval and tattling) than boys. Sears additionally concludes, from his own studies and others, that the "elaborate behavioral, attitudinal, and manneristic patterns" that people in our society characterize as being either masculine or feminine are absorbed quite early, by age $2\frac{1}{2}$ -3, and are highly resistant to change after that time.

Looking at the early school years, we find that boys have significantly more "adjustment" problems than girls. They are more often behavior problems, underachievers, enuretic, have reading problems, speech problems, and land more often in clinics. One eminently plausible explanation for this disparity of behaviors is that young children perceive school as a feminine place. Nearly all the teachers are female, non-aggressive behaviors are favored, and good grades are correlated with "good" behavior. Boys

have difficulty finding a place in school when doing well is antithetical to masculinity.

Interestingly enough, the situation reverses itself in the high school years and the college years accentuate this reversal. High school is an increasingly masculine place and the college or university is a predominantly masculine environment. The teachers are predominantly male, and the behaviors demanded are successively more independent and aggressive. Girls are now the underachievers, the dropouts. They now have to face the same dilemma boys did earlier: The society presses for achievement but achievement also demands the acting out of sex-inappropriate behavior.

Kagan and Moss (1962), in their explanation of some of the findings of 30 years of comprehensive and on-going assessment of a group of individuals followed from birth (the Fels Research Institute longitudinal population), state that dependency is a stable trait for women (meaning that dependency in early childhood predicts dependency in the adult). One stable trait for men is ease of anger arousal. Some traits are stable for both sexes, e.g., spontaneity. Examples of unstable traits are, for men: dependency (dependency in a little boy does not predict dependency as an adult; for women: aggressiveness (aggressiveness in a little girl does not predict aggressiveness as an adult). The explanation Kagan and Moss offer is:

sex-typical behavior is likely to become stable because it is reinforced by members of the culture while sex-atypical behavior is likely to be unstable because it is punished.

Observations of early training in the home and nursery school documented that young girls are subject to more severe socialization of aggression than are boys. A girl's behavior is gradually brought under control through the action of two sets of forces: (1) the content of the cultural definition of the ideal female influences the girl's "fantasied concept of how she should behave" and (2) the "pattern of rewards and punishments issued by parents, teachers, and friends act in concert to suppress both open forms of aggression and angry feelings."

Kagan and Moss found that aggression is strongly suppressed in women and that the majority of women in their longitudinal study did have an "aggression conflict", one measure of which was a significantly longer time taken to respond to tachistoscopically presented scenes of aggression. (This measure of aggression conflict was correlated with verbal denials of aggressiveness and delay in recalling aggressive scenes during adult assessment and to observer ratings of low overt aggressiveness in childhood.)

The feminine inhibition against the expression of aggression is of such magnitude, that consideration of sex

and sex-role orientation is necessary in aggression related experiments. Milgram's famous experiment (Milgram, 1963) in which Ss were asked to administer increasingly severe shock to another person used only male subjects. In a later experiment, Buss (1963a) demonstrated that when the subject (shocker) and victim were of the opposite sex, more guilt and opposition could be elicited than with a same-sex pair when a negative statement regarding the use of shock was read prior to the experiment. Buss went on (1963b and 1966) with investigations of behavioral sex-related differences. Using the aggression machine, as Milgram did, Buss found that the sex of both subject and victim were important. In the subject role, women as a group administer less shock to both men and women than men do. In the victim role, women receive less shock.

Leventhal and Shemberg (1968 and 1969) extended this work by examining the effect of sex-role adjustment, i.e., feminine-women and masculine-men. The finding most relevant to our work is that feminine women administered significantly more shock than did masculine-women.

The finding that sex-role orientation is a relevant factor in predicting overt aggressive behaviors brings us full circle back to Lipinski's work.

For our study we propose to assess Horner's motive to avoid success and sex-role orientation as used by Lipinski. We would like to compare these two measures (as Horner

suggests in the interpretation of her results) and, further, see if either or both of these are related to an "aggression conflict" -- to be measured by a task developed by Kagan and Moss (1962)* for the same purpose.

Specific Hypotheses

In the following statements the first letters refer to the Franck DC status, the second designation the Gough masculinity-femininity status. Capital letters, M and F, refer to masculine & feminine scores respectively, and the lower case letters f and m to intermediate range scores on a given test. (See fig. 4)

1. Those women with masculine sex-role orientations (MM, FM, fmM, and MF) will evidence a higher Motive to Avoid Success than women with feminine sex-role orientations (FF, fmF).-- MECCA

These women will be the most insecure in their sex-role orientations and presumably will be the least likely to risk the consequences of success.

2. Those women with masculine sex-role orientations (MM, FM, fmM, and MF) will evidence a higher recognition threshold for the four aggressive pictures than women with feminine orientations (FF, fmF).-- BEHN

Aggressive behavior in women is criticized by our society. Women with these masculine sex-role identities already feel censured. Therefore, it seems reasonable to

*See Chapter II, pages 23-26, for a description of the tachistoscope task. The Appendix, pages 59-61, includes the actual stimuli used.

expect that they will resist responding to the aggressive scenes.

3. Those women with a high recognition threshold for the four aggressive pictures will also have a high Motive to Avoid Success.--JOINT

Women with high Motive to Avoid Success are fearful of risking the consequences of success and it is more likely they will resist recognizing the four aggressive pictures since they do not feel comfortable in aggressive situations.

4. Those women manifesting the sex-role orientations of FF and fmF will have a lower Motive to Avoid Success than women with masculine sex-role orientations of MM, FM, fmM, and MF.-- MECCA

Women who are most stereotyped in their sex-role identity are least interested in pursuing careers and can be expected therefore to have no reason to fear the consequences of success.

5. Those women manifesting the sex-role orientation of FF and fmF will have a lower recognition threshold for the four aggressive pictures, than women with sex-role orientations of MM, FM, fmM, and MF.-- BEHN

Feminine women appear to show greater aggression than masculine women. Because these women (FF, fmF) represent the most feminine part of the sample population, it is likely that they will recognize the aggressive pictures in the least time.

6. Those women having a low recognition threshold for the four aggressive pictures will also have a low Motive to Avoid Success.-- JOINT

Women with low aspirations for career success should be able to recognize the aggressive scenes easily since they are not under any pressure to defend their femininity.

7. The sex-role orientations of MM, FM, fmM, and MF will be correlated with a high Motive to Avoid Success and a high recognition threshold for the four aggressive pictures.-- JOINT

Women who are conflicted in their sex-role orientation will be least able to risk consequences of success and will most reluctantly respond to the aggressive scenes. Aggression is considered sex-inappropriate in women, consequently women who already feel deviant in their sex-roles need to avoid aggressive behavior.

8. The sex-role orientations of FF and fmF will be correlated with a low Motive to Avoid Success and a low recognition threshold for the four aggressive pictures.-- JOINT

These women are most confident in their sex-role orientation and presumably have little drive toward career goals. Therefore, they will have little fear of success consequences and will show low Motive to Avoid Success. This same group of women generally exhibit sex-appropriate behavior and can therefore more easily recognize sex-inappropriate (aggressive) behavior on occasion.

CHAPTER II

METHODS AND PROCEDURE

Subjects. The subjects were white college women from introductory psychology classes at Portland State University. By drawing our sample from this population, we have a group comparable to those in both Lipinski's and Horner's studies.

Figure 1. Age distribution of subjects.

The original sample numbered 183. Some Ss were eliminated for not fully completing tests or for reasons of race, bringing the sample to 173 Ss. In age, the Ss ranged from 16 to 49. The mean for age was 19.92 years, with mode of 19 and median of 18. (See Figure 1.)

The Ss were primarily single, with approximately equal numbers of those being unattached or involved in a liason (engaged, going steady).

Figure 2. Marital status of subjects.

Fourteen of the married women had one child or more, four of those divorced had a child, and one single woman had a child. (See Figure 2.)

Socioeconomic class of the Ss, as estimated by level of father's education, is middle- and lower-middle class.

Figure 3. Level of father's education.

General Procedure. The sex-role conflict measures (Franck DC and Gough) and Horner's measure of Motive to Avoid Success were administered to Ss in a group. We both scored the two projective measures (Franck and Horner) and calculated the interscorer reliability using Kendall's Tau. The reliability of interscoring was .86 on the Franck and .87 on the Horner.

Included with this material were questions to inform us of age, socioeconomic class, marital status and whether the S had children or not. To minimize Ss answering in biased directions, the measures were presented as research concerned with studying the relationship between verbal and

non-verbal imaginative tasks and perception.

After the sex-role measures were scored, we asked a sample of women who fell into the cells of sex-role conflict (MM, fmM, FM, MF, fmF, and FF) to return to participate in the tachistoscope task. This was presented to Ss individually.

Measures of Sex Role

The Gough Brief Test of Femininity. Gough's aim in constructing this scale was to obtain an instrument that would differentiate males from females without being too obvious in content (as he felt the Strong and MMPI scales were) and which would be suitable for use with a normal population. The beginning work on the scale began with items left-over from a political participation study that unexpectedly proved to differentiate males from females. To this pool were added items presumed to have some relationship to psychological femininity, either on empirical or speculative grounds. Through testing with high school and college students this pool was first reduced to 112 items. Further testing, again with high school and college students, resulted in 58 items that reveal significant differences between males and females. This method of scale construction Gough calls the "empirical technique". For this scale, usage indicates that for high school students, 5% females fall below the male mean; for college

students, 8% fall below the male mean. This femininity scale comprises one (fe) of eleven scales on the California Psychological Inventory developed in this fashion. Gough reports several clusters of items on this scale. The largest factor he refers to as "an emphasis on clean white collar work, and a rejection of certain conventionally masculine roles". The second largest factor he describes as being "feelings of sensitivity, a tendency to respond to the nuances and atmosphere of social interaction as much as to the more concrete aspects". In the CPI Test Manual, Gough gives a composite of the highly feminine individual as contrasted with the highly masculine individual as follows:

Feminine

Appreciative, patient, helpful, gentle, moderate, persevering & sincere; as being respectful & accepting of others; & as behaving in a conscientious & sympathetic way.

Masculine

Outgoing, hard-headed, ambitious, active, robust, & restless; as being manipulative & opportunistic in dealing with others; blunt & direct in thinking & action; & impatient with delay, indecision & reflection.

The Gough scale has been used in conjunction with the Franck for four studies of sex-role orientation and is chosen in preference to the MMPI or Strong F-M scales because of the possibilities it offers us for comparing our work with prior efforts.

The Franck Drawing Completion Test. Thirty-six incomplete drawings are completed by the subject in any manner she chooses. The test is designed as a masculinity-

femininity scale. Sex differences have been found to occur in the use of space, lines, and content. For example, openness vs closure, emphasis on internal elaboration vs external expansion, and passive vs active content are categories used in scoring.

The author claims that her test is a "measure of degree of acceptance of the individual's sex-role, conscious or unconscious." (Franck, 1949).

The scale was developed by Franck because she found existing M-F scales to be inadequate in that "they are highly charged with cultural factors and hence their validity depends upon the absence of cultural change", (Franck, 1949). The direction of her investigation was taken from a study of the use of space by pre-adolescents (Erickson, 1951). Franck attempted to design a non-verbal measure sensitive to the found sexual differences in the use of space (spacial arrangements and configurations). After some unsuccessful attempts (Franck 1945 & 1946) Franck was successful with a revised scale and obtained highly significant sex differences with a sample of college students. It has been since standardized on citizens of eight countries and gives the same results.

Some indications of the success of Franck's avowed goal are to be found in a comparison study of Shepler's (1951). He found that the Franck test does as adequate a job of discriminating between men and women as does the

MMPI M-F scale, the M-F scale of the Strong Vocational Interest Blank (Forms M & F), and the Terman-Miles Attitude Interest Analysis Test. However, while the Strong, MMPI, and Terman-Miles measures correlate with each other the Franck does not correlate with any of them. The author concludes, in support of Franck's claim, the Franck DC test is apparently measuring different aspects of M-F than those measured by the other three instruments.

Reed (1957) has also found that the Franck has a "low insignificant correlation" with the M-F scale of the MMPI and with the Draw-A-Person. Reed theorized, again in support of Franck's position, that the sexual difference assessed by the Franck DCT would be related to those orientations taken by the individuals at an extremely early age and would be related to unconscious modes of expression: nonverbal/kinesthetic/perceptual-motor. On the other hand, verbal statements measured by such instruments as the MMPI M-F would be related to later development and would be related to verbal/cultural expectations and the superego level of functioning. Reed found that a large difference between the M-F as measured by the Franck DC and the MMPI M-F was positively correlated with psychoses in women. This difference he took to mean a conflict existed between conscious and unconscious levels of M-F.

Several studies since Reed's have used the Franck DCT to measure "latent" as opposed to verbal measures of

"manifest" M-F. Lipinski (1965), Sister Barbara (1971), Lansky (1961), and Miller (1960) all report the Franck DCT to be a significant discriminator between men and women and yet not correlated with the verbal scales.

Urbina (1970) found that the Franck discriminated between male and female Ss at the .001 level of significance while only using the first 12 of the 36 item test. In the interest of brevity and to allow additional measures, an abbreviated version of the test (first 12 items) was used on the present study since it does not appear to impair the test's effectiveness.

Sex-role Orientation. Lansky (1960) has devised a means by which the sex-role identity of an individual is assessed in terms of congruence of scores on the Gough and Franck scales. The distribution of scores on both sets is divided into thirds, identified as M (most masculine), fm (average), and F (most feminine) for the bottom, middle, and top thirds of the distribution for each test. By combining these three categories, it is possible to

manifest level of sex-role identity	F	MF	fmF	FF
	fm	Mfm	fmfm	Ffm
	M	MM	fmM	FM
		M	fm	F
latent level of sex-role identity				

Figure 4. Nine sex-role groups as derived for Franck and Gough test score distributions.

conceptualize congruence between the manifest and latent levels of sex-role identity as in figure 4.

The manifest level of sex-role identity is derived from the Gough test score distribution as described above, while the latent level sex-role identity is derived from the Franck test score distribution. The first letter in each of the nine cells in figure 4 refers to the latent level (Franck DC) of sex-role identity.

The fmfm category of figure 4 presumably reflects the norm in sex-role identity, i.e., the individual maintains optimal flexibility in coping with the demands of a complex world by drawing on both "masculine" and "feminine" orientations on both manifest and latent levels of awareness. The remaining categories of Mfm, Ffm, fmM, fmF fall in some indeterminate middle range of greater flexibility than FF, FM, MF, and MM (conflict groups) but less flexibility than the "ideal" fmfm group.

The Measure of Motive to Avoid Success (M-S). This measure is taken directly from Horner (1969) who reports it as being the only variable that relates to achievement behaviors. This motive is assessed by having the subject complete stories that are begun with the lines:

1. After first-term finals, Anne finds herself at the top of her medical-school class.
2. Anne is sitting in a chair with a smile on her face.

Subjects are asked to write a brief paragraph about what happens to Anne next. The stories are scored for "motive to avoid success" if they express any negative imagery that reflects concern about doing well. Generally, such imagery falls into three categories: 1. strong fears of social rejection as a result of success, anxiety about becoming unpopular, unmarriageable and lonely. 2. guilt and despair over success and doubts about their femininity, or 3. simply deny that a woman could be so successful.

Fear of Aggression. There seems little doubt that psychological defense mechanisms as conceived in personality and clinical terms can influence perceptual recognition behavior. (Sauber, 1971) but the term "perceptual defense" has been the center of controversy. The term was first used by Bruner and Postman (1947) in relation to the finding that taboo words have high tachistoscopic thresholds. This and later studies have been criticized on methodological grounds. However, experiments more sound methodologically--that control for word frequency and other associative factors--continue to show that higher recognition thresholds are easily obtainable for disagreeable words (Goldiamond, 1958; Sauber, 1971).

Several issues remain for the interpretation of this stable empirical finding. The first objection that can be raised is that perceptual effects and response effects are confounded (Worthington, 1970). This is true but not

of concern to us. Such a sorting out of effects would be interesting and desirable, although we do not wish to explore that problem in this study. We will maintain the same position as Coons & Annis (1970) that, being interested in social learning, we can legitimately be content with a focus on the verbal response.

The second interpretive question concerns whether or not we can say that the individual with a high threshold is deviant and the individual with a low threshold reflects the norm in a given comparison. The lower threshold could just as well reflect a vigilant stance due to increased interest and the higher threshold reflect the norm rather than a defense.

A number of investigators have shown that perceptual responses (auditory, kinesthetic & visual) are subject to conditioning in the same way as motor responses. Mild shock appears to increase perceptual efficiency -- the "vigilance" effect (Adcock & Mangan, 1970). With this in mind, Kagan and Moss' finding could be interpreted to mean that men as a group have a low threshold for aggressive scenes because they are more interested in, what is for them sex-appropriate behavior -- and not mean that women have a high threshold because they have an aggression conflict as the authors interpreted it to mean.

Severe shock decreases perceptual efficiency, i.e., reduces the speed and likelihood of a perception. So that,

with this information there are three possible responses: vigilant, unaffected, and defensive. Assuming that men demonstrate the vigilant effect, if we get two significantly different thresholds for our two groups of women, it would seem reasonable to interpret the higher score as indicating some kind of inhibition.

Our procedure followed Kagan & Moss' to allow comparisons to be made regarding the direction of response between our two groups of Ss.

Tachistoscopic Perception Task. The subject was seated at a tachistoscope and presented with a series of 14 test stimuli (See Appendix, pages 66-68). The subject was given the following instructions:

I am going to show you some pictures at a rapid rate, and I want you to tell me what is happening in the picture. Who are the people, are they male or female? What are their approximate ages; that is, are they old, middle-aged, young adult, or children? Finally, what is each person in the picture doing?

The instructions were intended to orient the subject to report objective facts about the pictures rather than a theme or inferences about the motives or feelings of the figures. The subject was then shown three practice pictures to adapt her to the situation and to familiarize her with the responses required. Then the S was shown the test stimuli at the fastest speed.

You will see 14 pictures again at slightly slower speed but in a different order.

This was repeated for a total of seven times in three different random orders at exposures of .04, .08, .10, .20, .40, .80, and 1.0 second. A check sheet was used to enable the experimenter to assess the S's identification of the test stimuli accurately (see Appendix page 69.) The S was scored for the first trial in which she described accurately the sex, approximate ages, and content of the scene and after which she continued to produce correct responses at succeeding trials. This trial was designated as the S's recognition threshold.

Kagan & Moss found that the control pictures generally had low thresholds for both sexes. However, both dependency scenes and aggression scenes occasioned significant sex differences in ease of recognition (low threshold). For three of the four aggression scenes, the women had significantly higher recognition thresholds than the men. On all three dependency pictures, the men had significantly higher thresholds than the women. Additionally, a high threshold for recognition of aggressive scenes was correlated (in women) with low self-ratings of aggression, delayed recall of aggressive scenes, and inhibited aggression towards peers during childhood. (This task took approximately 30-45 minutes to complete with each subject.)

CHAPTER III

RESULTS

Franck Scale. There were 12 raw measures collected from each subject that were scored for masculinity-femininity. The final score for each S is a simple summing of the number of feminine drawings weighted by 3. The range of possible scores is 0-36. In this case, the scores ranged from 6 to 33. The distribution of the women fell in a normal curve, slightly skewed in the direction of mascu-

Figure 5. Distribution of Ss Franck scores.

linity, a result that might be expected in a group of college women. The breakdown was 43% M, 46% fm, and 11% F. (see Figure 5). The inter-rater reliability for scoring the Franck was .86.

Gough Scale. Each true or false response was scored female or male, depending on the empirically-derived criterion key. The final score for this measure is the total number of feminine responses. The higher scores, as they are on the Franck, are more "feminine" -- in terms of empirical and social definitions of sex-role.

The Gough measure was characterized by a normal distribution, with a slight emphasis in the direction of femininity. The percentage of women falling in the M sector was 16%, in the neutral (fm) sector 53%, and 31% fell in the F sector. (see Figure 6).

Figure 6. Distribution of Ss Gough scores.

The mean Franck score (17.7) of the sample is lower than the mean of 22.7 reported for U.S. women by Franck and Rosen (1949) and the mean of 18.47 reported by Lipinski (1965). The mean Gough score (34.8) for this sample is essentially the same as the mean of 35.9 reported by Lipinski (1965) and the mean of 35.87 reported by Gough (1952).

Sex-role Orientation. Grouping the Ss by congruence of scores of the Franck and Gough measures (as outlined in Chapter II), the Ss were divided into the 9 sex-role orientations as follows: 12% MF, 15% fmF, 4% FF, 29% Mfm, 20% fmfm, 5% Ffm, 4% MM, 9% fmM, 2% FM. (see Figure 7).

MF	fmF	FF
21	26	7
Mfm	fmfm	Ffm
51	34	8
MM	fmM	FM
7	15	4

Figure 7. Sex-role orientation distribution.

Lansky's method of dividing Ss into 9 sex-role groups was simply to divide the obtained distribution of Franck and Gough scores into thirds, labeling the upper 1/3 - feminine, the middle 1/3 - neutral, and the remaining lower 1/3 - masculine. Lipinski's results using these divisions were, for some hypotheses, inconclusive. In her discussion, Lipinski wonders if the 1/3-1/3-1/3 divisions "adequately identify those who are actually conflicted."

In this study, a modification of Lansky's method was tried. Since both the Franck and Gough have standardized scores, we used these scores to establish our breaking points rather than relying on the particular distribution obtained in our sample of 173 Ss. (The disadvantage involved is the small number of Ss who fall into the extreme cells.) On the Franck, we used 0-15 to define masculine, 18-24 for neutral or flexible, and 27-36 for feminine. The Gough scores for masculine were 23-30, for neutral 31-39, and feminine 40-43.

Tachistoscope. For this task 36 Ss were selected who fell into the 6 cells of main interest: MF, fmF, FF, MM, fmM, FM. The Ss were distributed as noted in Figure 8.

MF 7	fmF 9	FF 4
MM 6	fmM 7	FM 3

Figure 8. Distribution of selected 36 Ss in the six sex-role cells of main interest.

The Ss were each shown a series of 14 line-drawings of people in various situations. The 14 stimuli contained 4 aggression scenes, 3 dependency scenes, 2 romantic scenes, 2 physical harm pictures, and 3 neutral situations. The scenes are briefly described in Appendix page 66, and presented in the Appendix, pages 67 and 68. A list was provided E to aid in maintaining the same standards for 'recognition' in all Ss. The scoring list is presented

in the Appendix, page 69.

The S was scored for the earliest trial at which a given stimulus is identified correctly, and continued to be identified correctly.

The average recognition thresholds for the scenes are presented in Table I.

TABLE I
AVERAGE RECOGNITION THRESHOLDS FOR EACH PICTURE
FOR THE TWO HYPOTHESIS GROUPS

Picture	FM, MF MM, fmm	FF, fmF	t one- tailed
Aggression 1	6.48	6.46	.02
2	3.57	3.08	.93
13	6.22	5.85	.88
14	5.00	4.54	1.08
Dependency 3	5.96	5.62	.73
4	6.04	5.38	1.72**
5	5.61	5.54	.16
Sex 6	6.30	5.62	1.52*
7	3.78	3.92	.30
Harm 8	4.39	4.54	.34
9	5.83	5.23	1.84**
Control 10	4.91	4.54	.96
11	5.13	5.46	.69
12	4.96	4.85	.31
*.10 **.05			

The original hypothesis called for grouped aggression and dependency recognition thresholds. Since significantly different means were found to occur with scene S6 and H9, the data for Sex, Harm, and Control were also grouped and tested. The average recognition thresholds for the grouped

data are given in Table II.

Since the hypothesis groupings did not obtain significant results in relationship to M-S (although they did in relation to aggression on the tachistoscope task), but other groupings did, it was felt advisable to check these groupings in regard to Tachistoscope data also.

TABLE II

AVERAGE RECOGNITION THRESHOLDS FOR GROUPED DATA
FOR EACH OF THE TWO HYPOTHESIS GROUPS

Picture	MM, fmM FM, MF	FF, fmF	t one- tailed
Aggression	5.32	4.98	3.24****
Dependency	5.87	5.51	1.44
Sex	5.2	4.80	.76
Harm	5.11	4.88	.66
Control	5.0	5.0	----
****.005			

The results, (see Table III) were not significant with the single exception of Test #3 (aggression) which remained significant with the removal of the maverick* MF group but at a lesser level (.01 vs .005).

*The MF group was termed maverick by Lipinski because the results for this group conflicted with those of other women having manifest feminine sex-role orientation.

TABLE III

TESTS OF SIGNIFICANCE OF DIFFERENCE BETWEEN
VARIOUS GROUPINGS OF THE SEX-ROLE
ORIENTATION CELLS

Test #	Sex Roles			Aggres- sion	Depen- dency
	Group 1	Group 2	df	t	t
1-2	MM, fmM, FM, MF	FF, fmF	34	3.24**	1.05
3-4	MM, fmM, FM	FF, fmF	27	2.43 *	.89
5-6	MM, fmM, FM	FF, fmF, MF	34	.55	.46
7-8	MM, fmM	FF, fmF	24	.98	.87
9-10	MM, FM (Gough)	FF, MF	18	1.11	.69
11-12	MF, MM (Franck)	FF, FM	18	.99	.41
13-14	MM	FF	8	.02	1.09
*.01 **.005					

Motive to Avoid Success. Using the new scoring manual, Motive to Avoid Success was found to be present in 92% of the Ss and absent in 8% of the Ss.

The stories written by each S in response to the two verbal cues were scored for M-S using the new scoring manual developed by Horner, et. al. (1973). There are 5 categories which may be scored for presence of M-S and one category which is scored for absence of M-S. The six categories are summed for the final score. Consequently, the range of possible scores was -4 to +16. Scores in this study ranged

from -4 to +13. Some degree of M-S was present in 92% of the Ss. Using the natural cutting points that occurred in this sample, this breaks down as follows: Of those in which M-S was present; low M-S .25, medium M-S .29, and high M-S .33.

Figure 9. Distribution of M-S Scores

Means and standard deviations were computed for all sex-role groups M-S scores (see Table IV).

The *t* statistic was used to analyze the data in various combinations of sex-role groups. (see Table VI). A test of Hypothesis 1 (MM, fmM, MF, FM vs FF, fmF) and 4 (FF, fmF vs MM, fmM, MF, FM) produced no significant differences.

TABLE IV

MEANS AND STANDARD DEVIATIONS OF M-S SCORES FOR
NINE SEX-ROLE GROUPS IN INCREASING ORDER
OF SIZE OF MEAN SCORES

Sex-role Group	X	SD	N
fmfm	4.7941	3.298	34
FF	5	2.6185	7
Ffm	5.125	4.456	8
MF	5.5714	3.5126	21
Mfm	5.6274	3.4466	51
fmF	6.48	3.4224	26
fmM	6.66	2.599	15
FM	7	3.675	4
MM	8.4885	1.84	7

An Analysis of Variance for independent means produced an F of 1.32. For eight degrees of freedom, the level of confidence was .25, which is too high to be considered significant.

TABLE V

ANOVA OF DIFFERENCE BETWEEN MEANS OF M-S
BETWEEN THE NINE SEX-ROLE GROUPS

Source	SS	df	ms	F	P
Total	2085.087	172	--	--	
Between groups	126.1935	8	15.774	1.32	.25
Within groups	1958.8935	164	11.945	--	

TABLE VI
M-S DIFFERENCES TESTED WITH THE t STATISTIC

Test #	Sex Roles		df		t
	Group 1	Group 2			
1	MM, FmM, FM, MF	FF, fmF	78		.3009
2	MM, Mfm, MF	FF, Ffm, FM	96		.4129
3	MM, Mfm	FF, Ffm, FM	75		.5226
4	MM, Mfm	FF, Ffm	71		.8790*
5	MM, MF	FF, FM	37		2.4558
6	MM	FF, FM	16		1.917++
7	MM, fmM, FM	FF, fmF, MF	78		1.5596+
8	MM, fmM, FM	FF, fmF	57		1.1556
9	MM, fmM	FF, fmF	53		1.1580
10	MM, FM	FF, MF	37		2.1416+++
11	MM, FM	FF	16		2.6110+++
12	MM	FF	12		2.6238+++
13	FM	MF	23		1.2767+
14	MM, fmM, FM	fmfm	58		2.86+++++
15	MM, fmM, FM, MF	fmfm	71		1.839
*Trend .20 +Trend .10 ++.05 +++.025 ++++.01 +++++.005					

A comparison of M-S scores for groups along the Franck sex-role dimension (MM vs FF, FM) leaving out the maverick MF cell and the neutral Mfm, Ffm cells produced a difference significant at the .05 level. When the MF cell was included in the comparison there was no significant

difference. A comparison of the Franck groups (MM, Mfm vs FF, Ffm) without the deviant FM and MF cells resulted in a difference significant at .20. When all six possible cells were compared (MM, Mfm, MF vs FF, Ffm, FM) the results were not significant.

A comparison of the six Gough cells M-S scores (MM, fmM, FM vs FF, fmF, MF) was significant at .10. While this result was not as strong as desired, it is in the expected direction. When the neutral groups were eliminated, (fmM and fmF) the results were significant at the .025 level. Testing the difference for the Gough groups (MM, FM vs FF) without the neutral groups nor the maverick MF group gave a difference significant at .01.

Looking at just the extreme sex-role groups MM vs FF resulted in a difference significant at .025. When comparing Horner's a posteriori masculine sex-role groups versus the ideal self-actualized group (MM, fmM, FM, MF vs fmfm) a difference was found that was significant at .05. However, the most striking result occurred with the comparison of the masculine Gough cells, without MF, vs Lansky's ideal person cell (MM, fmM, FM vs fmfm). The difference between these groups is significant at .005.

Interrelationships. Past studies indicated that Gough and Franck scores were not correlated. Pearson Product Moment correlations performed on our data indicate that neither M-S nor tachistoscope scores were correlated

with Gough or Franck scores alone. (see Table VII). The hypotheses cells, which include both strong Franck and strong Gough influence, were needed to find a significant (negative) correlation between tachistoscope scores and M-S (test #10). This finding and that of test #1, that high tachistoscope aggression scores, irrespective of cell, are significantly negatively correlated with the M-S, were unexpected findings. The correlation had been predicted to occur but in a positive direction. The results of tests #1 and #10 were a reversal of our hypotheses. (The significance of #10 is questionable since in a group of 17 tests, this low level significance could be obtained by chance.)

TABLE VII

POSSIBLE INTERRELATIONSHIPS OF THE EXPERIMENTAL
MEASURES INVESTIGATED WITH THE USE OF
PEARSON'S PRODUCT MOMENT

Inter-Relationships		df	r
1	Hi Tac Agg Score corr w M-S	13	-.71**
2	Lo Tac Agg Score corr w M-S	10	.28
3	Hi Tac Agg Score corr w Gough	13	.04
4	Lo Tac Agg Score corr w Gough	10	.48
5	Hi M-S Score corr w Gough	24	.03
6	Hi Tac Agg Score corr w Franck	13	.13
7	Lo Tac Agg Score corr w Franck	10	.37
8	Hi M-S Score corr w Franck	24	.19
9	Tac Agg Scores in FF, fmF corr w M-S	11	.09
10	Tac Agg Scores in MM, MF, fmM, FM corr w M-S	21	-.35*
11	Tac Agg Scores in MM, MF corr w M-S	11	-.39
12	Tac Agg Scores in FF, FM corr w M-S	5	.07
13	Tac Agg Scores in MM, FM corr w M-S	7	-.07
14	Tac Agg Scores in MM, FM fmM corr w M-S	14	-.25
15	M-S Scores in FF corr w Gough Score	5	.36
16	M-S Scores in FF, fmF corr w. Gough Score	31	-.06
17	M-S Scores in MM corr w Gough Score	5	.23

*.10 ** .01

CHAPTER IV

DISCUSSION

Horner's a posteriori consideration of Lipinski's work included the new, untested, hypothesis that the addition of the MF group to Lipinski's "masculine-oriented" group (MM, fmM, FM) would have provided significant results. Horner further suggested that the cells MM, fmM, FM and MF "would have greater M-S than their more "female" oriented counterparts."

It was this lead that we followed in for formulation of our hypothesis groups: MM, fmM, FM, MF vs FF, fmF. The results of the tachistoscope task supported the validity of this grouping ($p .005$) for the 4 aggressive stimuli. The results of the M-S task did not support the hypothesis regarding this grouping.

Within the four-picture grouping of aggressive scenes, two pictures (A_1 and A_{13}) involve same-sex individuals (2 women) and two pictures (A_2 and A_{14}) involve cross-sex aggression (a woman attacking a man). It is interesting to note that the largest, though not significant, differences between the two groups occurred in relation to the cross-sex scenes (see Table I). This suggests that aggression in a cross-sex situation is more frightening for the

masculine group, than for more stereotyped feminine women. Same sex aggression, while apparently more taboo for both groups of women than it is for men, appears to elicit nearly the same response from both groups, i.e., less than for cross-sex aggression.

This observation of increased delay in recognizing aggressive scenes involving a woman attacking a man, particularly for group 1 (MM, fmM, FM, MF), may be coupled with the additional observation of the Ss behavior in the dependency scenes. Here the differences are most notable in a reversed way, e.g., the largest and this time significant difference was with the same-sex picture. The Hypothesis group 1 took significantly longer to recognize the scene portraying one women pleading with another (D₄).

This may suggest that more masculinely-oriented women (group 1) have different reactions to cross-sex aggression and same-sex dependency than femininely-oriented women (FF, fmF). Specifically, group 1 appears more frightened of both aggression against men and dependence on women than group 2.

A visual comparison of the performance of the hypothesis group 1 (MM, fmM, MF, FM) on aggression and dependency with Kagan & Moss' male and female group is made in Figure 10.* The cross-sex pictures are seen to

*This is offered as an aid to understanding only. The recognition thresholds of male and female groups from the

Figure 10. Speculative comparison with Kagan & Moss' results.

evoke exaggeratedly feminine behavior in the case of aggression and behavior in a masculine direction on the dependency scene of same-sex interaction. This illustration suggests that group 1 has the worst of both worlds, i.e., women in Kagan and Moss' study were more conflicted over aggression while men were more conflicted over dependency. Group 1 women are more conflicted than women in general over aggression and more conflicted, as men are,

*(cont.) Kagan and Moss study have been plotted. Then the recognition threshold for the hypothesis group 1 of this study were added so the direction of response could be visualized.

over dependency -- in at least one area.

In an attempt to understand why a test of Hypothesis 1 and 4 (Horner's a posteriori conflict groups) did not show a significant difference in M-S, a test was done leaving out the maverick MF group. This changed the grouping from conflict cells to cells grouped along the Gough manifest-level of sex-role orientations. While the results were not significant, they were in the expected direction, i.e., masculine-oriented women would show higher M-S than feminine-oriented women. This may mean that in predicting M-S, a woman's conscious sex-role orientation may be the more powerful predictor. Using only those cells with strong sex-role identities and testing the conscious levels of identities produced results significant at $p .025$. Removing the maverick MF cell from this grouping intensified the results, $p .01$.

Lipinski's term 'maverick' for the MF group proved to be particularly apt in our study. They were not predictable in the same direction in both cases, i.e., M-S and fear of aggression. Their low M-S mean places them solidly in the feminine orientation, while their high fear of aggression mean switches them back to the hypothesis group. A better understanding of the MF women may also give a solution to the contradictory negative correlation of M-S and fear of aggression.

The MF group's mean indicates that their inclusion

with FF would not weaken the difference significantly, yet it did reduce the strength of the significance markedly. Grouping the cells to test for significance along the latent level of sex-role identities, without the MF group, resulted in a difference significant at .05.

When the maverick MF group was included in this latent-level sex-role comparison, it not only weakened the significant difference, but the difference was lost.

Evidently both levels of sex-role identity may be used to predict M-S scores for women. However, using conscious sex-role identity as the predictor will enable one to do this with much greater certainty. If a woman falls in the MF cell, less could be said with reliability. Lipinski (1965) also found this group to be somewhat erratic in nAch.

Apparently, strength of M-S is connected with some of the same traits that discriminate sex-role identities. The ability to be flexible may be the critical trait to discriminate best between the groups. The most significant difference was found in the comparison that included Lansky's ideal or normal fmfm, which he described as the group which is most able to remain flexible in coping with the demands of a complex world. He maintains they gain the flexibility by drawing on both "masculine" and "feminine" traits.

When looking at the means of the conscious masculine

ability to be flexible.

A higher overall level of M-S was found in this study than was found in Horner's original study (1968), even though achievement for women is being encouraged at many levels. It would seem that it should be more acceptable and less risky for women to engage in achievement oriented activities now. Yet success and its consequences appear to continue to be fearful to many women. It is the authors' conclusion that women are still receiving a double-message from the culture. To be a successful professional and female is to risk social rejection and loss of self-esteem.

Suggestions for Future Research. A better tachistoscope test could be devised. While this measure, as used by Kagan and Moss, was sensitive enough to isolate differences between men and women, the differences within the female population are smaller than that between female and male populations. Our results would have been more dramatic had the test been adjusted. In this particular experiment this change was not made in order that inferences could be drawn regarding the direction of change.

More aggressive and dependent scenes would not only allow the within female population differences to be seen more vividly, but a variety of same-sex and cross-sex scenes might uncover an interpretable relationship with the M-S.

Another modification in design for future research would be to sample the omitted three sex-role groups (Mfm, fmfm, Ffm) for testing with the tachistoscope since unexpected relationships were found between M-S and some fm groups, particularly, the ideal fmfm group. Since this group was not run on the tachistoscope in this experiment, no question regarding possible tachistoscope - M-S relationship for this group can be answered.

It may be worthwhile in future research to consider using a measure of flexibility in addition to the measures used in this study to test whether those women most conflicted in their sex-roles are also the least flexible.

We hope our findings will generate understanding of the conflicts women face when they choose to pursue a career. It is not enough that legislation makes it illegal to discriminate against women (a change in the explicit rules). More effort must be directed toward understanding the powerful psychological reasons (the implicit rules) which handicap women in their attempts to pursue a career and of which many women themselves are unaware.

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Name: _____ Age: _____

Marital Status: Single: Unattached as yet ___ Going steady ___
Engaged ___

Married: How long ___ # of children ___
Divorced? ___ Widowed? ___

How many children are there in your family? Brothers ___
Sisters ___

How many are younger than you? Brothers ___ Sisters ___

How many are older than you? Brothers ___ Sisters ___

What is your father's occupation (if father is retired or deceased, what was his most recent full-time occupation)?

What was the highest level of schooling that your father attained? (Indicate degrees earned, if appropriate.)

What if any, is your mother's occupation (consider here only paid employment)?

What percentage of her time does (or did) she devote to it?

What was the highest level of schooling that your mother attained? (Indicate degree earned if appropriate.)

What is your present vocational goal once your education is completed?

What is your major?
(freshman, etc)?

What is your academic year

* * * * *

INSTRUCTIONS: On the following pages you will see two verbal leads or cues, and your task is to tell a story that is suggested to you by each cue. Try to imagine what is going on in each. Then tell what the situation is, what led up to the situation, what the people are thinking and feeling, and what they will do.

In other words, write as complete a story as you can -- a story with plot and characters.

You will have twenty (20) seconds to look at a verbal cue and then 4 minutes to write your story about it. Write your first impressions and work rapidly. I will keep time and tell you when it is time to finish your story and to get ready for the next cue.

There are no right or wrong stories or kinds of stories, so you may feel free to write whatever story is suggested to you when you look at a cue. Spelling, punctuation, and grammar are not important. What is important is to write out as fully and as quickly as possible the story that comes into your mind as you imagine what is going on in each cue.

Notice that there will be one page for writing each story following the cue. If you need more space for writing any story, use the reverse side of the cue page.

After first term finals, Nancy finds herself at the top of her med school class.

Anne is sitting in a chair with a smile on
her face.

Directions: Circle T if the item is true about you. Circle F if the item is not true about you. Do all the items. This questionnaire is designed to take about 5 minutes to complete.

- T F 1. I want to be an important person in the community.
- T F 2. I'm not the type to be a political leader.
- T F 3. When someone talks against certain groups or nationalities, I always speak up against such talk even though it makes me unpopular.
- T F 4. I like mechanics magazines.
- T F 5. I think I would like the work of a librarian.
- T F 6. I'm pretty sure I know how we can settle the international problems we face today.
- T F 7. I would never feel right if I thought I wasn't doing my share of the hard work of any group I belonged to.
- T F 8. People seem naturally to turn to me when decisions have to be made.
- T F 9. I must admit I feel sort of scared when I move to a strange place.
- T F 10. I like to go to parties and other affairs where there is lots of loud fun.
- T F 11. If I were a reporter I would like very much to report news of the theater.
- T F 12. I would like to be a nurse.
- T F 13. It is hard for me to "bawl out" someone who is not doing his job properly.
- T F 14. If I get too much change in a store I always give it back.
- T F 15. I very much like hunting.
- T F 16. Some of my family have habits that bother and annoy me very much.
- T F 17. I would like to be a soldier.

- T F 18. I think I could do better than most of the present politicians if I were in office.
- T F 19. I like to be with a crowd who play jokes on one another.
- T F 20. It is hard for me to start a conversation with strangers.
- T F 21. I often get feelings like crawling, burning, tingling, or "going to sleep" in different parts of my body.
- T F 22. I hate to have to rush when working.
- T F 23. In school I was sometimes sent to the principal for cutting up.
- T F 24. I think I would like the work of a building contractor.
- T F 25. When I work at something I like to read and study about it.
- T F 26. I think that I am stricter about right and wrong than most people.
- T F 27. I am somewhat afraid of the dark.
- T F 28. I am very slow in making up my mind.
- T F 29. I am hardly ever bothered by a skin condition, such as athlete's foot, rash, etc.
- T F 30. I like to boast about my achievements every now and then.
- T F 31. Sometimes I cross the street just to avoid meeting someone.
- T F 32. I would do almost anything on a dare.
- T F 33. I think I would like to drive a racing car.
- T F 34. I must admit that I enjoy playing practical jokes on people.
- T F 35. I always tried to make the best school grades that I could.
- T F 36. I am inclined to take things hard.

- T F 37. At times I feel like picking a fist fight with someone.
- T F 38. I am apt to hide my feelings in some things, to the point that people may hurt me without their knowing about it.
- T F 39. Sometimes I have the same dream over and over.
- T F 40. The thought of being in an automobile accident is very frightening to me.
- T F 41. The average person is not able to appreciate art and music very well.
- T F 42. I prefer a shower to a bath.
- T F 43. I am often a little uneasy about handling knives and other sharp-bladed instruments.
- T F 44. Sometimes I feel that I am about to go to pieces.
- T F 45. I like adventure stories better than romantic stories.
- T F 46. I like to be in many social activities.
- T F 47. I was hardly ever spanked or whipped as a child.
- T F 48. I think I would like the work of a garage mechanic.
- T F 49. A windstorm terrifies me.
- T F 50. I get very excited very easily.
- T F 51. I become quite irritated when I see someone spit on the sidewalk.
- T F 52. I think I would like the work of a dress designer.
- T F 53. I have a certain talent for understanding the other person, and for sympathizing with his problems.
- T F 54. It makes me very nervous when I get blamed for making a mistake.
- T F 55. I often get disgusted with myself.
- T F 56. I always like to keep my things neat and tidy and in good order.

T F 57. I think I would like the work of a clerk in a large department store.

T F 58. I get very tense and anxious when I think other people are disapproving of me.

* * * * *

On the following page you will find a number of incomplete drawings; please complete them. Do it any way you like; use as many lines as you wish; do it the way it seems most fun. There is no wrong or right way of doing this. We want to know what women can do in response to simple geometric drawings like these. It is necessary for you to complete all the drawings.

Aggressive scenes

- 1 - A young woman is choking another young woman.
- 2 - A young woman is punching a young man.
- 13 - A young woman has hands above head and is holding a plate which she is about to throw at an older woman who is cowering.
- 14 - A young woman has her hands raised to the face of an older man as if to slap him.

Dependency scenes

- 3 - A young woman is on a stool with her head bowed and arms around the waist of an adult of the opposite sex who is standing behind the central figure.
- 4 - A young woman is standing with hands out as if pleading with an adult of the same sex who is standing in the background with back to the central figure.
- 5 - A young woman is on her knees in front of an adult of the opposite sex. The woman on her knees is looking up to the standing adult as if imploring the latter.

Sexuality scenes

- 6 - A couple is in bathing suits on a beach. The man is over the woman and is kissing her.
- 7 - A standing couple is embracing and kissing.

Physical Harm scenes

- 8 - A young woman is falling backward in mid-air.
- 9 - A dog is attacking a young woman who is recoiling from the animal.

Control scenes

- 10 - A young man and woman are standing together looking up at a picture.
- 11 - Two men are standing while one lights the cigarette of the second one.
- 12 - Two women are standing together; one is handing the other a cup and saucer.

S6

S7

H8

H9

C10

C11

C12

BEHN-MECCA Thesis Experiment

SUBJECT: _____

Exposure: Circle one (.01 .02 .04 .10 .50 1.0)

ORDER: #3

Circle letter if S passes (correctly identifies a stimulus)

D5 - A young woman is on her knees in front of a man. The woman is looking up to the man as if imploring him.

H8 - A young woman is falling backward in mid-air.

~ A13 - A young woman has her hand above her head and holding a plate which she is about to throw at an older woman who is cowering.

A2 - A young woman is punching or lunging at a young man.

S6 - A couple in bathing suits on a beach. The man is over the woman and is kissing her.

A1 - A young woman is choking another young woman.

D3 - A young woman is on a stool with head bowed and arms around the waist of a man who is standing in back of her.

C10 - A young man and woman are standing together looking up at a picture.

S7 - A standing couple is embracing and kissing.

C11 - Two men are standing while one lights the cigarette of the other.

C12 - Two women are standing together; one is handing a cup and saucer to the second one.

D4 - A young woman is standing with hands out as if pleading with a woman who is standing in the background with her back to the young woman.

H9 - A dog is attacking a young woman who is recoiling from it.

A14 - A young woman has her hand raised to the face of an older man as if she means to slap him.