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Fear-of-success in Male and Female College Students: Sex-Role Identification and Self-Esteem as Factors

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FEAR-OF-SUCCESS IN
MALE AND FEMALE COLLEGE STUDENTS:
SEX-ROLE IDENTIFICATION
AND SELF-ESTEEM AS FACTORS

by

Anne Bradford Stericker

A Dissertation 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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VITA

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CHAPTER I

INTRODUCTION

The Original Fear-of-Success Research

Since 1968 when Horner completed her doctoral research, the concept of "fear-of-success" in women has stimulated ever increasing interest. In a study of sex differences in achievement motivation, Horner asked 178 male and female undergraduates to write a brief story to a number of verbal cues including: "At the end of first-term finals, Anne (John) finds herself (himself) at the top of her (his) medical school class." Females wrote about Anne, males about John in the same situation. Horner also studied the subjects' performance on an anagrams task under conditions of interpersonal competition and achievement-oriented non-competition. The findings relating to men were largely consistent with previous studies of achievement motivation. Results for women, however, were ambiguous and inconclusive as in most past studies. That is, after hearing instructions referring to the anagrams tasks as a measure of intellectual and "leadership ability," males increased their achievement scores, but females did not. And on the anagrams task, males performed better in competition, while women performed better alone.

Finally, Horner developed an independent measure for the "motive to avoid success." On this measure 65% of the women were high in the expression of thematic apperceptive imagery connoting "fear-of-success," compared to only 9% of the male sample. In response to the successful male cue ("John"), more than 90% of the men in Horner's 1968 study wrote stories showing strong positive feelings, increased striving, confidence in the future, and a belief that this success would be instrumental to meeting other goals, such as providing a secure and happy home for a woman. For example, "in one story John is thinking about his girl, Cheri, whom he will marry at the end of med school and to whom he can give all the things she desires after he becomes established. He decides he must not let up but must work even harder than he did before so as to be able to go into research" (Horner, 1972, p. 162). Only 9% of the males responded at all negatively to the cue about John's being number one, and those 9% focussed primarily on John's rather dull personality.

In response to the successful female cue ("Anne"), however, 65.5% of the women were disconcerted, troubled, or confused by Anne's success. Outstanding success in women was clearly associated for them, it seemed, with the loss of femininity, social rejection, personal or social destruction, or a combination of the above. Their stories were filled with negative consequences and affect, righteous indignation,

withdrawal rather than increased striving, and concern, or even an inability to accept the information presented in the cue.

The most frequent Anne story revealed strong fears of social rejection resulting from the success. The women writing this type of story indicated anxiety about becoming unpopular, unmarriageable, and lonely. The following are examples:

1. "Anne is an acne-faced bookworm. She runs to the bulletin board and finds she's at the top. As usual she smarts off. A chorus of groans is the rest of the class's reply....She studies 12 hours a day and lives at home to save money. 'Well, it certainly paid off. All the Friday and Saturday nights without dates, fun -- I'll be the best woman doctor alive.' And yet a twinge of sadness comes through -- she wonders what she really has..." 2. "Anne doesn't want to be number one in her class...she feels she shouldn't rank so high because of social reasons. She drops down to ninth in the class and then marries the boy who graduates number one." 3. "Anne is pretty darn proud of herself, but everyone hates and envies her." (Horner, 1972, p. 70)

The next most frequent Anne story was less concerned with social rejection, and more worried about Anne's femininity and normality. Two examples are presented here:

1. "Unfortunately Anne no longer feels so certain she really wants to be a doctor. She is worried about herself and wonders if perhaps she isn't normal...Anne decides not to continue with her medical work but to take courses that have deeper personal meaning for her." 2. "Anne feels guilty...She will finally have a nervous breakdown and quit medical school and marry a successful young doctor." (Horner, 1972, p. 70)

A third group of Anne stories did not even try to deal with ambivalence about doing well. Women in this category simply denied the content of the cue. Some

completely changed the content or distorted it, or refused to believe it, or relieved Anne of responsibility for her success. These stories, Horner felt, were remarkable for their psychological ingenuity:

1. "Anne is a code name for a nonexistent person created by a group of med. students. They take turns writing exams for Anne..." 2. "Anne is really happy she's on top, though Tom is higher than she--though that's as it should be...Anne doesn't mind Tom winning."
3. "Anne is talking to her counselor. Counselor says she will make a fine nurse." 4. "It was luck that Anne came out on top because she didn't want to go to medical school anyway." (Horner, 1972, p. 70)

Women showed significantly more evidence of the motive to avoid success than did the men, with 59 of the 90 women (65.5%) scoring high, compared with only 8 of the 88 men (9%). (The chi square difference of 58.05 was significant at $p < .0005$.) In addition to the sex difference in fear-of-success in the stories, Horner found that women high in fear-of-success performed best under the non-competitive condition, working alone, while low fear-of-success women performed best in competition similar to the male subjects.

The new "motive to avoid success" was conceptualized by Horner within the context of an "expectancy-value" theory of motivation developed by Atkinson and McClelland (e.g., Atkinson, 1958; McClelland, Atkinson, Clark & Lowell, 1953). In expectancy-value theories of motivation, the main factors determining the arousal of a disposition or motive, and the direction of an individual's behavior, are:

(a) the expectations one has about the consequences of one's actions, and (b) the value of those consequences to the individual. Anxiety is aroused, according to the theory, when one expects that the consequences of an action will be negative. The anxiety then serves to inhibit that action; it does not, however, determine which actions will then be taken. The latter is a function of the positive approach motives and tendencies which are characteristic of the individual (Atkinson & Feather, 1966; Horner, 1970).

Horner argued that most women do have a "motive to avoid success," that is, a disposition to become anxious about achieving success because they expect negative consequences (such as social rejection and/or feelings of being unfeminine) as a result of succeeding. This is not to say that most women "want to fail." The presence of a "will to fail" would, according to the theory, imply that they actively seek failure because they expect positive consequences from failing. A motive to avoid success on the other hand implies that in most otherwise positively motivated young women, the expression of achievement-directed tendencies is "inhibited by the arousal of a thwarting disposition to be anxious about the negative consequences they expect will follow the desired success" (Horner, 1972, p. 159).

The motive to avoid success was conceptualized as a latent, stable, personality disposition acquired early in

life in conjunction with standards of sex-role identity. Such a motive amounts to an internalization of the prevailing social stereotypes, which view competence, independence, competition, and intellectual achievement as consistent with both masculinity and mental health, but inconsistent with femininity.

Horner reported in 1972 that "the pattern of sex differences in the production of fear-of-success imagery found in the first (1968) study has been maintained in the subsequent samples of men and women tested since that time..." (p. 163). Inspection of the data summarized in her report, however, does not show this to be so. The percentages of subjects producing fear-of-success imagery range from 47.0% to 88.2% for women, and from 9.1% to 47.2% for males. However, only two samples of males are presented, Horner's original sample of 88 freshman and sophomore men, and a sample of 34 freshmen tested in 1970.

Fear-of-Success After 1968

The scores of studies stimulated by Horner's original research, with or without modification, have failed to replicate her findings consistently. Hoffman (1974) did a study almost identical to Horner's except that she included four different forms of the original verbal cue. She meticulously replicated the most famous part of Horner's original study, using a similar male experimenter, an introductory psychology class at the same university at the

same time of year, and even the same room. Hoffman used the original "medical school cue," i.e., "At the end of first semester finals, Anne (John) finds that she (he) is at the top of her (his) medical school class;" plus three variations of the cue: (a) "Anne finds that she is the top child-psychology graduate student," (b) "After first term finals Anne receives in the mail her grade report which says that she is at the top of her medical school class," and (c) "After first term finals in medical school, Anne finds she has made the honor list since she is one of the very few students with an average over 95."

The aim of the first variation was to retain all aspects of the original cue except that the setting was changed from medical school, a conventionally masculine field, to child psychology which was seen as either masculine or feminine. The aim of the second variation was to present Anne's success as a privately communicated event, rather than publicly posted as apparently implied by the original cue. The third variation was intended to minimize the competitive aspects of the success. One quarter of Hoffman's 245 subjects responded to each of the four cue variations.

None of the variations diminished fear-of-success responding. Fear-of-success percentages were nearly identical on the four cues; however, the males consistently showed more fear-of-success than did females (77% vs. 65%).

Thus the frequency of fear-of-success responding for females was the same as in Horner's study, but for males it increased from 8% to 77%. For females the most common fear-of-success theme was affiliative loss or social rejection (42%); for males it was questioning the value of the achievement (30%).

A review of some 61 fear-of-success studies by Tresemer (1974a) revealed that the percentage of women expressing fear-of-success imagery ranged from 11% to 88% (median 47%) compared to the percentage for men of from 14% to 86% (median 43%), a seemingly small difference. These percentages and medians cannot be taken as legitimate norms for men and women, but they at least show that men show fear-of-success too, and sometimes in greater numbers than women. Of the 36 studies which included male subjects, 17 showed higher levels of fear-of-success imagery for males than for females. Clearly one cannot conclude, as Horner did, that women fear success more than men do, although there is evidence that they fear it for different reasons. Women's fear-of-success appears to be associated with fears of social rejection and loss of femininity, whereas men's fear-of-success seems more often to be related to a questioning of the value of success per se.

The contradictory findings of the studies which came after the 1968 research are apparently due to a number of factors. Horner's failure to provide a detailed scoring

manual has led to scoring inconsistencies among independent researchers. A common scoring error which Tresemer (1974a) found was the labelling of any negative comments in a story as indicative of fear-of-success. The theoretical basis of a "motive to avoid success" is the hypothesized feeling of anxiety that success will have negative consequences. Thus, only consequences should properly be counted as fear-of-success imagery. However, some researchers have scored any negative elements as indicative of fear-of-success, whether actually related to the success or not. Thus, a story about a young woman working with handicapped children, who wanted to help them overcome their difficulties and who succeeded in doing so, ought not to be scored for fear-of-success. Similarly, scoring negative antecedents of success as fear-of-success would be incorrect, according to the underlying theory. For example, a story might tell of a high school boy who has gotten a good report card, following a lecture from his parents and a refusal by the football coach to allow him to play till his poor grades improved. The negative aspects are antecedent to Joe's success and should not be scored as fear-of-success.

Before presenting the body of research most closely related to the present study, it may be useful to summarize the findings of early studies in achievement motivation, specifically those which showed some puzzling sex differences.

Summary of Early Work on Achievement Motivation in Women

The classic work on achievement motivation was done in the 1940s and 1950s by McClelland and his colleagues (McClelland, Atkinson, Clark & Lowell, 1953). Need for achievement was measured projectively. Stories told in response to pictures from a Thematic Apperception Test (TAT) (modeled after Murray's, 1943) were scored for achievement themes according to carefully developed categories. Typically, the TAT was given following one of several treatments involving paper-and-pencil word games. In the "relaxed" condition, achievement-related cues in the instructions were minimized as much as possible; subjects were not asked to sign their names; the paper-and-pencil tasks and the story-writing tasks were introduced as tests in the developmental stages; the experimenter's manner was light, even joking. In the "neutral" condition, the intent was neither to decrease nor increase level of motivation. Thus, the experimenter was businesslike and asked the cooperation of subjects in developing norms for his tests. In the "achievement-oriented" or "arousal" condition, subjects worked on the anagrams tasks after being told the tasks reflected the individual's intelligence, and capacity to organize material, and evaluate situations quickly and accurately, "in short, his capacity to be a leader." Following the anagrams tasks, subjects were asked to write stories to each of several pictures which were projected on

screen. Most of McClelland's subjects were male, but several studies were done with females. After an achievement-arousal session, males consistently increased the achievement themes in their stories, but women did not.

Veroff (1950) administered a six-picture measure of need for achievement (n Ach) to two groups of male and female high school students (22 girls, 18 boys). Three pictures contained male figures, three pictures contained female figures. As in previous studies, males' achievement motivation scores for the male pictures increased significantly from the neutral to the arousal condition ($\bar{M} = 1.94$ to $\bar{M} 4.93$). However, males' scores for the female pictures remained low in both conditions ($\bar{M} = 1.72$ to $\bar{M} = 1.57$). Females responding to female figures also showed no significant gain in n Ach score from the neutral to the arousal condition, producing scores very similar to the males' ($\bar{M} = 1.77$ to $\bar{M} = 1.92$). To the male figures, however, female subjects' n Ach scores were high in both neutral and arousal conditions ($\bar{M} = 5.76$ to $\bar{M} = 5.21$).

At the time these early results of Veroff and Wilcox on achievement motivation in women were obtained, McClelland's group wondered why the females did not show the same increase in achievement imagery under arousal conditions that males did. Three hypotheses were advanced: (a) The scoring method might not be valid for females, (b) The instructions perhaps did not arouse achievement strivings in women, and

(c) The neutral condition might actually arouse achievement motivation to such a high degree in females that there was no room for further increase under achievement-arousal. Wilcox's (1951) study was intended to test the third hypothesis. She wanted to reduce the number of achievement-related cues present in the neutral condition far below those in Veroff's study. Therefore in the neutral condition she tested her subjects in small groups in their own dormitory rooms. The experimenter was as friendly and relaxed as possible, treating the experiment as a routine task of no special importance. She introduced it as a project she was doing on thought processes, for which she needed some imaginative stories. Subjects were told not sign their names. Wilcox had also selected pictures of female figures in somewhat more achievement-oriented situations than those Veroff used. During the arousal condition, the females were tested in a classroom together with male subjects. They were given an anagrams task first. Instructions alluded to possible sex differences in mental ability and asked subjects to work rapidly and do their best. Following this arousal, the TAT was administered. Even with the efforts just described to make the neutral condition relaxed and unthreatening, and the use of more achievement-oriented pictures, Wilcox's results were a direct confirmation of Veroff's results: no differences between neutral and arousal conditions, significant differences between

male and female pictures.

Veroff's and Wilcox's results indeed suggest that achievement motivation is more easily aroused in women than in men, and that women respond at a maximum level even under neutral conditions, so that it is not possible to increase their achievement responses further under achievement-arousal.

McClelland et al. (1953) point to some rather doubtful evidence against the above hypothesis of women's maximum n Ach scores under neutral conditions, drawn from a study by Field (1951). Field tested college males and females under a relaxed condition in which achievement cues were deemphasized, and a failure condition, in which subjects were told their performance on the preceding paper-and-pencil word tasks had been below certain norms. As expected, males showed a significant increase in n Ach from the relaxed to the failure condition, while females showed a non-significant decrease. Unlike previous studies where maximum n Ach scores were shown by males under achievement-oriented conditions (including failure) and by females under either neutral or achievement-oriented conditions, here, male scores in the failure condition were significantly higher than female scores in the relaxed condition. To the present author this deviation from the pattern of results of other studies does not provide especially strong evidence that women's achievement scores

did not reach their maximum in the relaxed condition.

More interesting, however, were three other conditions included in Field's study in addition to the above-mentioned standard relaxed and failure conditions which, as explained above, manipulate achievement motivation by referring to "intelligence" and "leadership." In the three additional conditions the dimension of achievement manipulated by Field was called "social acceptability." The experimenter first gave subjects a lengthy discussion on the importance of social acceptance by a group as the most important determiner of ultimate satisfaction with life, and claimed that the best predictor of acceptance in all social situations was acceptance in present ones. Subjects were next given fabricated social acceptance scores that supposedly reflected their acceptance or rejection by other members of the present group. The subjects then wrote stories under this "social arousal" condition. One outstanding fact emerged in the results. The variations in reported "social acceptance" scores had no effect on males' n Ach scores, but a marked one for females. Women showed significantly higher n Ach after being told they were either accepted or rejected by the group when they were told nothing (relaxed condition).

McClelland and his colleagues quickly concluded from Field's findings that women's n Ach is "unequivocally" tied up with social acceptance, while men's is associated

with ideas of intelligence and leadership capacity. To arouse n Ach in women, they advised, refer to their social acceptability; in men, their leadership and intelligence. But, as Maccoby and Jacklin (1974) point out, Field's study, by eliminating from the social acceptance conditions the stress on "leadership," also eliminated the element of implied competition. Thus it is hard to know what had the significant effect on women: The absence of implied competition, the stress on social acceptability, or both. Two of the four pictures Field used for the story-writing portion were of males only, and two included a female. Field did not analyze his results according to sex of figure in the pictures.

Pursuing the argument that women's achievement motivation is associated with concern over social acceptance, McClelland and his colleagues (1953) admitted that the reason for this particular sex difference was not clear, but perhaps had something to do with the greater importance for women of dependence on others, and the greater importance for men of independence of others. They referred first to a study by Winterbottom (1953) of boys aged 8 to 10, in which boy's n Ach scores were related to stress on independence training reported by their mothers. Winterbottom found that mothers of sons high in n Ach expected their children to have learned various independence tasks (e.g., to know how to find their way around the town) much earlier

in life than did mothers of sons low in n Ach. Then a study by Lowell (1952) involving high school aged Mormon subjects is cited as "very tentative" evidence that the reverse relationship is true for girls. As part of a larger study Lowell interviewed six mothers of girls and six mothers of boys for whom he also had n Ach scores. The six boys' scores were positively related to "severity of independence training" reported by mothers ($\tau = .41$, $p < .15$), while girls' scores were negatively related ($\tau = .41$, $p < .15$). McClelland et al. (1953) suggest that since dependence is more expected in women, interference with dependence (or more "severe" independence training) might actually indicate rejection by the mother either of her daughter or of the "female role," which in turn could supposedly affect the daughter's desire to achieve. Lowell's samples are so small, of course, that no firm conclusion should be drawn from his findings. Furthermore, Mormon family life and religious life are distinctive enough that generalizing from them to males and females in the population at large could be dangerous. At any rate, it remains an open question whether females' greater n Ach scores in Field's (1951) "social acceptance" conditions were the result of reference to social acceptance, absence of references to competition, or both of these.

Researchers also remain concerned with the question of whether the most valid projective measures are those in

which the central stimulus figure is the same sex as the subject. Veroff's (1950) study with both male and female subjects responding to male and female pictures suggested that achievement imagery as McClelland et al. (1953) had defined it was associated with male picture cues more often than with female picture cues. Or as they put it, "even girls project achievement strivings primarily onto the activities of men" (1953, p. 173). Herein lies one complication in the use of the projective technique to measure n Ach. The technique assumes that the responses a subject makes to ambiguous stimuli such as pictures or sentences reflect the subject's own motivations, feelings, and behavior. In order to facilitate a more direct expression of the subject's inner feelings, stimuli are usually selected in which the main character is as similar to the subject as possible. Thus, boys are typically given a boy's form of a projective test, in which the central figure in the picture or verbal cue is a boy, and girls are given a girl's form with girls as central figures. Then when female subjects give fewer achievement themes in response to female cues, can one say with certainty that this is due to their lower achievement motivation? Or does it reflect their assumption that other girls and women are not achievers? The latter hypothesis seems to be supported by the fact that males also give fewer achievement themes to cues with female characters. Do both sexes see males as achievers,

females as non-achievers? The sample in Veroff's study was admittedly small (40 subjects), the subjects were relatively young (16-18 years old) and the data were collected over 25 years ago, long before concern with women's rights was as widespread as today. Yet a sample of 120 male and female adolescents tested more recently by Monahan, Kuhn and Shaver (1974) yielded the same results in a fear-of-success study using the "medical school" cue. Males and females wrote stories to both "Anne" and "John." More subjects of both sexes responded to Anne with negative attitudes than to John, and male subjects were even more negative about Anne than were female subjects (boys, $p < .0006$; girls, $p < .07$).

Results of the two studies suggest that women's usually lower n Ach scores to female cues, especially under arousal conditions may not reflect their own motivations so much as their sex-role concepts (which they share with men) concerning the typical characteristics of women and girls. If we are to conclude then that for both males and females, responses to cues about females provide in part a measure of sex-role concepts, what about cues with male characters? McClelland and his co-workers give abundant evidence that male n Ach scores obtained from stories to male cues are valid measure of achievement motivation in that they relate positively to male task performance measures. What of female n Ach scores obtained with male cues?

Wilcox (1951) provided a partial answer to this question testing college females under neutral and arousal conditions, using both male and female cues. As in Veroff's (1950) study, there were no significant differences between conditions (neutral vs. arousal), but a significant difference between types of pictures, male pictures eliciting significantly more achievement themes than female pictures. Wilcox's anagrams performance data indicated that the *n* Ach scores obtained from both the male and the female pictures are valid for women, since the females' *n* Ach scores based on both the male and the female cues related positively to their performance scores. High *n* Ach women produced significantly more words from the root word "GENERATION" than did low *n* Ach women: 45 vs. 29.82 words ($p < .05$).

It might reasonably be asked whether *n* Ach scores based on the female pictures combined with the male pictures are a legitimate measure of *n* Ach, since females as a group consistently score very low to female pictures even under the arousal condition. However, the variances of scores around the means of all groups are roughly comparable and in fact they are mathematically homogeneous (Relaxed Condition, Male Pictures: $\bar{M} = 5.70$, $\underline{SD} = 3.9$; Relaxed Condition, Female Pictures: $\bar{M} = .26$, $\underline{SD} = 2.6$, [$F = 1.5$, $p > .01$]; Ach-Oriented Condition, Male Pictures: $\bar{M} = 5.77$, $\underline{SD} = 4.2$; Ach-Oriented Condition, Female Pictures: $\bar{M} = .38$, $\underline{SD} = 3.3$, [$F = 1.26$, $p > .01$]). Thus high and low scores on *n* Ach

could be determined from female cues as well as from male cues.

Murstein (1965) reviewed findings on the importance of similarity between TAT stimulus figure and the subject, and concluded that physical similarity may be less important than the cultural and personal significance of the stimulus for the subject. On the one hand, some investigators (e.g., McIntyre, 1954; Silverstein, 1959) have found no evidence that subjects project more onto figures of the same sex as their own, while on the other hand, according to Murstein, there is evidence hinting at a greater facilitation for opposite-sexed projection in women. Murstein cites four studies, namely, the ones already cited by Wilcox (1951) and Veroff (1950), one other from the McClelland group, and a fourth study. The Wilcox and Veroff studies, of course, indicated that women produced significantly more achievement themes to pictures of males than to pictures of females. In the third study, deCharms, Morrison, Reitman, and McClelland (1955) found in testing college women "who held office," that n Ach scores derived from stories to pictures of career women did not predict performance in an achievement situation. However, pictures of men or of women in nonachievement situations did yield performance-related n Ach scores.

The fourth study, by Lubetsky (1960), had college men and women rate themselves and a series of photographs of persons of varying ages on 27 personality traits.

Lubetsky hypothesized that projection (ascribing traits attributed to self to persons in the photos) would be greater when judging photographed individuals who were similar in age and sex to the self than when judging relatively dissimilar photographs. Males did as predicted with photographs of both men and women. Women, however, saw themselves as more similar to the photographs of men than to the photographs of women, making no age distinction with respect to projection to the photographs of men. When judging women, they did follow the predicted age gradient, seeing themselves as more similar to younger women than to older women.

It has been shown (Broverman, Broverman, Clarkson, Rosenkrantz, and Vogel, 1970) that characteristics typical of a healthy adult female are less valued in American society than characteristics typical of a healthy adult male or healthy adult person of unspecified sex. Also, work labelled as having been done by a man is typically judged superior to the identical work labelled as having been done by a woman (Mischel, 1974). In short, it seems that males are in many ways more valued by the society than are females. The women as well as the men in Lubetsky's study may have identified to a greater extent with the more valued photographed figures, that is, the males. A social desirability measure relating subjects' tendencies to respond in the socially desirable direction with their

ratings of themselves on the 27 traits might have helped to explain this finding.

Murstein's conclusion that the role of physical similarity between stimulus and subject has been overvalued, while the sociological value of the depicted characters has been underestimated, has merit when applied to n Ach testing; that is, women respond with more achievement themes to pictures of male characters than to pictures of female characters when the characters are depicted in achievement situations. The deCharms et al. (1955) study showed that in women, sex-role conflict may be aroused by the use of female characters in achievement-situations. In their study of college women who held office, pictures of male characters regardless of situation, or of female characters in non-achievement situations both resulted in valid (performance-related) n Ach scores, while pictures of "career women" did not. In other words, the women could indeed respond with performance-related achievement imagery to female characters, provided the female characters were not in situations incompatible with the subjects' sex-role values. This strongly suggests the importance of subjects' sex-role attitudes in the valid measurement of achievement motivation, or more narrowly, fear-of-success.

Achievement Motivation, Sex-Role Identification, and
Fear-of-Success

A number of more recent studies in achievement

motivation have pointed to the apparent influence of sex-role attitudes upon subjects', especially women's, feelings toward academic and/or career success.

Alper (1973) tested the relationship between "role-orientation" as measured by her Wellesley Role Orientation Scale (WROS) and achievement motivation in college women, and found that "low feminine" subjects scored significantly higher in achievement motivation than "high feminine" subjects. Alper did two studies which used the WROS, a 24-item paper-and-pencil measure of sex-role preferences in college women, and stories written to two pictures from the Veroff, Atkinson, Feld, and Gurin (1960) set. The pictures were the Chem Lab, depicting two women in a laboratory setting, and the Machine Shop, showing two men in a machine shop. In the first study 35 Wellesley undergraduate women wrote stories to the two pictures; in the second study (two years later) 50 undergraduate women wrote to the Chem Lab picture only.

In both studies achievement motivation was significantly related to sex-role orientation. Thus, low feminine subjects more often than high feminine subjects told high success stories, and high feminine subjects more often than low feminine subjects told success-avoidance stories, in which either the dangers of achieving were stressed (e.g., the experiment fails and the characters give up) or achievement imagery was completely absent.

Alper reported that the McClelland et al. (1953) scoring procedures commonly used in research in achievement motivation, including both presence and absence of achievement imagery, and strength of the achievement imagery, had failed to reveal differences between high feminine and low feminine scorers on the WROS. Subsequently, as Horner (1968) had done when conventional scoring methods yielded ambiguous, inconclusive results, Alper turned to a thematic analysis of the stories. This approach did reveal differences between high and low feminine women.

Although both high feminine and low feminine subjects told success avoidance stories, high feminine subjects told more of them, and their stories were of a different type. For example, low feminine subjects tended to say that the project failed, while high feminine subjects tended to describe the achiever herself as endangered through the envy and dislike of others. As Alper pointed out, these avoidance stories appear similar to Horner's (1968; 1970) fear-of-success stories.

The success stories of Alper's high and low feminine women also differed in content. Low feminine subjects told success stories in which the women in the picture were engaged in critical tasks (e.g., finding a cure for cancer) and were highly successful. High feminine subjects told success stories of a different type. The task described was usually female-oriented (e.g., developing an irresistible

perfume) and success enabled other women to find husbands. Low feminine subjects described women as achievers; high feminine subjects described women as assistants to men, who were the real achievers. These differences, it should be noted once more, were not, properly speaking, differences in achievement motivation, at least not as it has conventionally been measured. High and low feminine subjects did not differ significantly in achievement motivation. Rather the differences were in the nature of the success or failure described by the subjects, similar to Horner's (1968) fear-of-success differences.

Parker (1972) found that simply telling her female subjects that the anagrams task they were to work on was either "masculine" or "feminine" affected their performance on the task. On the basis of their stories to the med school cue, subjects were designated either "high fear-of-success" or "low fear-of-success." High fear women performed better when their anagrams task was described as "feminine," low fear women when it was described as "masculine." Furthermore, high fear subjects worked best against a female opponent, while low fear subjects did best against a male opponent. Parker concluded that high fear-of-success women have a traditionally feminine sex-role orientation, while low fear-of-success women have an orientation that is traditionally masculine in nature. She reasoned that women perform best on tasks and against

competitors which they perceive as compatible with their personal sex-role orientation.

Katz (1972) introduced the medical school cue along with one of two variations. One group of Katz's female subjects received "All Anne's classmates are men;" and the other group received "Half of Anne's classmates are women." Fear-of-success imagery decreased significantly in the second case. Katz suggested that her respondents were more concerned about Anne's being deviant than about her being successful. An alternative version of this interpretation might be that the women in the first case were concerned over the apparent sex-role conflict of Anne's beating the men out of first place. In the second case, Anne beats both male and female students. That is, the presence of the female classmates in the second case mitigates the starkness of "beating men." As Horner argues, the conflict which particularly affects women is that although they feel it is acceptable and even expected to do well at school, it is unacceptable ("unladylike") to "beat" men at almost any task. The result is that women want to succeed, but not too much. Horner's thematic analysis approach was designed to identify just this conflict.

Horner (1972) points out that when the motive to avoid success (fear-of-success) was first introduced as a psychological barrier to achievement in women, it was conceptualized as a latent, stable personality disposition

acquired early in life "in conjunction with standards of sex-role identity" (p. 159). In effect, she described fear-of-success as a disposition developmentally and emotionally related to one's sex-role identity. Yet in all the fear-of-success studies reported by her (1968; 1970; 1971; 1972) sex-role identity as a factor has not been directly investigated. The need for research in this particular aspect of fear-of-success seemed obvious.

An additional variable will now be introduced which research has shown to be related both to sex-role orientation and to fear-of-success; namely, the level of self-esteem of the individual.

Self-Esteem and Fear-of-Success

Stericker and Johnson (1975) found with both males and females that subjects with a stereotypically more "masculine" sex-role orientation had a significantly higher level of self-esteem than subjects with a stereotypically more "feminine" orientation. As the authors noted, the direction of causality, if in fact there is a causal relationship, cannot be deduced from their correlational data. The more masculine orientation (i.e., seeing oneself as aggressive, independent, calm in a crisis, etc.) might contribute to a higher level of self-esteem. On the other hand, a high level of esteem might also enable an individual to maintain a more masculine orientation. The latter might well be necessary to deviate from the more traditional

feminine stereotype. The authors propose that self-esteem and sex-role identification may interact in a mutually reinforcing "salutary circle," where esteem, in the form of feelings of self worth and confidence, makes possible a "masculine" orientation, which in turn enhances self-esteem, which in turn allows one to be still more "masculine," i.e., independent, active, etc., and so on.

Further evidence of a relationship between self-esteem and sex-role identification was provided in an indirect way by Parker (1972). She divided her subjects into high and low fear-of-success groups, based on stories written to the medical school cue. Although both groups indicated on rating-scale items that they considered femininity equally important, the low fear-of-success women rated themselves more feminine than did the high fear-of-success women. Although it is possible that the low fear-of-success women were in fact more "feminine," a more likely explanation is that the self-rated higher femininity was simply one indication of that group's generally more positive self-concept. Positive self-concept could lead an individual to evaluate herself positively in many areas, including "femininity." Parker did not ask subjects to rate themselves on "masculinity," and perhaps such an item might be misconstrued by subjects as meaning masculine-looking, brawny and muscular, or unfeminine. But on traits often designated as "masculine," (e.g., independence,

leadership, ambition) the low fear-of-success group might well have rated itself higher than the high fear-of-success group, again as part of a generally more positive self-concept. Self-esteem appears to be a variable worth investigating in relation to fear-of-success.

Two more studies will be mentioned here, which indirectly suggest a relationship between sex-role orientation, self-esteem, and achievement motives, including fear-of-success. Ohlbaum (1971) examined whether and to what extent professional and academic pursuits in women might contribute to more positive self-concepts, to self-actualizing values, and to a more liberal, less stereotypic view of the feminine role. She studied 160 women in three groups: (a) highly educated professionals (M.D.'s, L.L.B.'s, Ph.D.'s, etc.), (b) miscellaneous professionals (teachers, social workers, journalists, etc.) and (c) non-professionals (homemakers). Both professional groups showed higher self-esteem, more liberal and achievement-oriented attitudes toward women's role, and a higher level of self-actualization than the non-professionals. The non-professionals tended to affirm the more traditional stereotype of woman's role while reporting a high degree of personal frustration and self-dissatisfaction with the feeling that they were not growing or developing their talents or abilities. Again, the correlational data of this study cannot be used to show causality. Indeed, it

is as likely that higher self-esteem and more liberal and achievement-oriented attitudes toward woman's role contributed to the women's choice of a professional career, as that their educational and career choices contributed to higher esteem, more liberal attitudes and greater self-actualization. The "salutary circle" proposed by Stericker and Johnson (1975) may be at work in this case, too. At any rate, among the women in this study, higher self-esteem and less traditional, more liberal, achievement-oriented attitudes were related.

Similarly, Schwenn (1970) explored one aspect of the relationship between fear-of-success and traditional femininity. She found that among college undergraduate women fear-of-success was linked with changes in career plans. As freshmen these women all held highly ambitious career plans. Women high in fear-of-success eventually lowered their initially very ambitious plans, deciding to work for a politician instead of being one, or to become a teacher instead of a lawyer, or to become a housewife instead of any number of things; in other words, to take a more traditionally feminine occupation. Self-esteem may well have been a significant factor in these findings. Changed and more modest career plans suggest a lack of the self-confidence necessary to aspire to more intellectually ambitious vocational challenges.

Grade-Point-Average and Fear-of-Success

Finally, academic ability and/or performance is also seen as a variable of interest of fear-of-success. Horner (1968) hypothesized that fear-of-success would be significantly more characteristic of high ability women than low ability women. Direct tests of the relationship between fear-of-success and academic performance have been mixed, some supporting Horner's theory (e.g., Kresojevich, 1972), and some not supporting it (e.g., Peplau, 1973).

The use of academic performance, i.e., grades, as a measure of academic ability, although questionable, has been a common practice. In the absence of truer measures, such as aptitude test scores, grades are often the only measure available, however approximate. Thus, academic grade-point-average may be used as both an ability indicator and a performance measure.

It has become increasingly apparent that achievement motivation and fear-of-success are much more complexly determined than was thought when these topics were first researched. As our sophistication in understanding their determinants and correlates has increased, the number of variables involved has also grown. It is certainly not presumed that fear-of-success will be simply or fully predicted by sex-role orientation or self-esteem level. Sex-role identification and self-esteem are expected to be two relevant variables added to an already complex network

of interacting motivational variables.

The present research was undertaken to investigate the relationship of sex-role identification and self-esteem to fear-of-success in college students. A number of hypotheses were proposed, which are described below.

Hypotheses

1. In both male and female subjects, fear-of-success is positively related to femininity scores and negatively to masculinity scores.

2. In both male and female subjects, fear-of-success is negatively related to level of self-esteem.

3. In both male and female subjects, fear-of-success is positively related to grade-point-average (GPA).

CHAPTER II

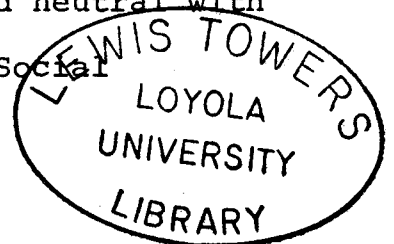
METHOD

Subjects

Subjects were 124 female and 107 male introductory psychology students at Loyola University of Chicago, who volunteered in partial fulfillment of a research participation requirement.

Instruments

Sex-role-identification. Sex-role identification was measured by means of the Bem Sex-Role Inventory (Bem, 1974) (BSRI), an instrument containing both a Masculinity scale and a Femininity scale, each of which contains 20 personality characteristics selected on the basis of sex-typed social desirability. A Social Desirability scale of 20 items is also included. A characteristic was designated masculine if it was judged by two independent samples of undergraduates to be more desirable in American society for a man than for a woman (e.g., ambitious, dominant, self-reliant). A characteristic was designated feminine if it was judged to be more desirable in American society for a woman than for a man (e.g., affectionate, gentle, understanding). A characteristic was designated neutral with respect to sex and hence eligible for the Social



Desirability scale if it was judged by both males and females to be no more desirable for one sex than another, and if male and female judges did not differ significantly in their overall desirability ratings of that trait (e.g., helpful, moody, sincere). Of the items satisfying those criteria for sex-typed neutrality, 10 positive and ten negative characteristics were selected in accordance with Edwards's (1964) finding that an item must be quite negative or quite positive in tone if it is to evoke a social desirability response set. The Social Desirability scale is intended to serve primarily as a neutral context for the Masculinity and Femininity scales, but it was used during the development of the BSRI to insure that the inventory would not simply be tapping a general tendency to endorse socially desirable traits.

The BSRI asks a person to indicate on a 7-point scale how well each of the 60 masculine, feminine, and neutral personality characteristics describes him or her. The scale ranges from 1 ("Never or almost never true") to 7 ("Always or almost always true") and is labelled at each point. The mean of the 20 masculine ratings constitutes the Masculinity score, the mean of the 20 feminine ratings the Femininity score, and if needed, the mean of the 20 social desirability ratings the Social Desirability score. The BSRI can characterize a person as masculine, feminine, or androgynous as a function of the difference between the

person's endorsement of masculine and feminine personality characteristics. The Androgyny score is defined as the t ratio for the difference between a person's masculine and feminine endorsements. Specifically, it is the difference between the Masculinity and Femininity scores, normalized with respect to the standard deviations of the Masculinity and Femininity scores. The greater the absolute value of the Androgyny score, the more sex-typed or sex-reversed the person is, with high positive scores denoting femininity and high negative scores denoting masculinity. The closer the Androgyny score is to zero, the more psychologically androgynous the person is.

Validity data provided by Bem (1974) indicate that the Masculinity and Femininity scales are empirically as well as logically independent (average $r = .03$). The Androgyny score was found by Bem to be internally consistent (average $r = .86$), reliable over a 4-week interval (average $r = .93$), and uncorrelated with the tendency to describe oneself in a socially desirable direction (average $r = .06$).

Self-esteem. Self-esteem was assessed using the Tennessee Self Concept Scale (Fitts, 1965). The Tennessee is composed of 100 self-descriptive statements which subjects use to portray their own picture of themselves. Item response format is a 5-point Likert scale ("Completely False" to "Completely True"). The item scores are summed to yield a basic Total Positive Self-Esteem score and 15

to 25 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.

Fear-of-Success. Fear-of-success was assessed using a thematic apperceptive method with verbal cues and a new empirically-derived scoring system developed by Horner, Tresemer, Berens, and Watson (1973). In response to the theoretical and methodological problems of Horner's original system, she and her colleagues worked out a more comprehensive scoring system, not limited to the outdated and too specific medical school cue, but applicable to ambiguous cues of all sorts. As Tresemer (1974b) pointed out, Horner forced subjects to respond to a narrow, focussed, concrete success situation: being number one in a highly competitive male-dominated field.

Tresemer (Note 1) has also suggested returning to the ambiguous cues traditionally used in projective tests. In the present research four cues were selected from seven suggested by Tresemer, of which two were "task" cues:

Donna (David) has just completed the project on which she (he) has been working for several months. After much work, Jane (John) has finally gotten what

she (he) wanted.

and two were "neutral" cues:

Nancy (Richard) is sitting in a chair with a smile on her (his) face.

Susan (Steven) is walking along the beach late in the day.

Sex of character in fear-of-success cues. Although some research has shown that both male and female subjects respond with negative imagery to a female cue figure, the deCharms et al. (1955) study indicates that female cues may be valid for female subjects if the cues are not explicitly achievement-oriented. The medical school cue (i.e., Anne at the top of her class) is, of course, highly achievement-oriented and competitive. Tresemer points out also (Note 1) that motivational psychologists have complex "understandings" of how identification with cue figures relates to personality characteristics. Normally they advise that a picture or verbal cue include someone "with whom the person can identify" (Atkinson & McClelland, 1948, p. 655). With few exceptions this has meant using cues depicting at least one same-sexed figure.

It was decided to retain same-sexed cues in the present study, in order to conform to theoretically based motivational testing practice, and because a return to ambiguous cues would presumably eliminate the explicit achievement characteristics which have complicated the interpreta-

tion of results in the past.

Scoring of fear-of-success. The six scoring categories of the new scoring system were selected by Horner et al. (1973) from 52 categories initially used to score stories during the developmental period. The six categories together explained 45% of the variance of performance decrements from pre- to posttest. On the neutral pretest an anagrams task was administered to the female subjects, then stories were written to the ambiguous cues developed by Tresemer (Note 1). On the competitive posttest one month later, the female in each male-female pair was first told she had done better than her male competitor on a frustratingly difficult mathematics achievement task (arousal condition), and then she was tested on an anagrams achievement task again. Thus, although their face validity is not always clear, the six categories "work" statistically.

The system was validated using an all-female sample. Tresemer (Note 1) observes that extending the system to male subjects may be expected to have justifications and problems similar to those involved in extending other psychological findings from males to females-and-males alike.

The six fear-of-success categories are 1) Contingent Negative Consequences, 2) Non-Contingent Negative Consequences, 3) Interpersonal Engagement, 4) Relief, 5) Absence of Instrumental Activity and 6) Absence of Mention of Other Persons (a counter-indicative category).

Negative Consequences are scored (+2) when there is some worsening of the story situation which may be characterized as tension-producing, or involving failure, loss, frustration, hopelessness, deprivation, or disaster.

Negative Consequences are considered Contingent when the tension, disappointment, or disaster comes about because of something about the character involved (e.g., "She had forgot she left the Bunsen burner on..."). Negative Consequences are considered Non-Contingent when the suffering comes about through the impingement of external forces, which may be accidents, acts of God, concrete events, or other forces not explicitly the fault of the character (e.g., "...everytime I try to do an experiment, something goes wrong, some one bumps me causing me to break a plate.").

Interpersonal Engagement is scored (+2) when two or more specific persons are clearly involved with each other, and when the interpersonal involvement is seen as a major goal of the story. There must be active concern with or activity toward it (e.g., "Now it was 7:00 and Bob had not called yet... She had looked forward to this night ever since Bob had asked her to go two weeks ago...").

Relief is scored (+1) when a relative tension or deprivation state is suddenly (sometimes magically) alleviated, often in a manner incurring surprise. There should be no clear statement that an individual's efforts led to the positive outcome (e.g., "Suddenly she walked into our

room and sat down in a chair, smiling. 'It's gone,' she said. 'The pain is gone, and I'm healthy again.'").

Instrumental activity is any overt or mental activity by one or more characters indicating that something is being done about attaining a goal. Absence of Instrumental Activity is thus scored (+1) when there is no statement of any instrumental act, either thinking or doing, toward attaining a goal in the story (e.g., "...the rich warm colors of the sun provided a feeling of pulsating life for Linda as she lay beneath the trees gazing into the sunset...").

Absence of Mention of Other Persons is scored (-2) if no character or group other than the person specified in the cue is mentioned in the story (e.g., "Carol decided to...take a walk...one late day. She thought about all her problems, and the rush of the water...made her feel better ...").

Given the six categories and their associated scoring weights (+2, +2, +2, +1, +1, -2), the total score for a particular story could range from -2 to +8. There are two ways to determine a final fear-of-success score. Using the Categorical Scoring method, scores are not summed across stories. If imagery occurs in at least one story for a particular category, that category is scored as present. The final score for a subject is computed by attaching the appropriate weights to the categories scored

present and then adding the categories. Thus, with the Categorical method and four stories, the final score for an individual subject could range from -2 to +8.

With the Continuous Scoring method, scores for each category are summed across stories. The final score for a subject is computed by attaching the appropriate weights to each category and adding the scores of the four stories. Thus with the Continuous method and four stories, an individual's final score could range from -8 to +32.

In the present research, the Continuous method was used to compute final scores for four stories. All 231 stories for a given cue were scored first before going on to the next cue, thereby avoiding false trend effects within the stories of any one subject. All scoring was done by the present author. The stories were "blind-scored"; that is, no identification as to the subject's self-esteem or sex-role identification scores was present on any story. Fear-of-success scoring was done entirely independently of self-esteem and sex-role identification scoring, and the sets of scores were not compared until all scoring was complete.

The interjudge scoring reliability of the author with an independent scorer was a rank-order correlation of .93 for fear-of-success scores assigned to 25 stories (selected randomly from all cues, and both sexes) and 97% agreement in scoring the presence of fear-of-success

imagery. Methods for determining scoring reliability are described by Atkinson (1958).

Personal data. A personal data questionnaire (see Appendix A) was also given. The rationale behind the questionnaire was partly to test the apparent assumption of females showing fear-of-success that successful women must be unpopular or rejected by men and/or other women. "Success" was measured by means of the cumulative grade-point-average (GPA) for each subject obtained with the subject's permission at the end of the semester following the one in which he or she had participated in the research. Subjects were also asked to indicate on the questionnaire their high school GPAs, to list academic honors received in high school, and to give a self-rating of their current success as a student on a 5-point scale from "Not at all successful" to "Extremely successful."

Some of the items intended to measure loneliness and rejection, and popularity and social success are presented below:

Item 17

- 1 I very often feel lonely & apart from people
- 2 I frequently feel lonely & apart from people
- 3 Occasionally I feel lonely & apart from people
- 4 I infrequently feel lonely & apart from people
- 5 I almost never feel lonely & apart from people

Item 19

- 1 I am very pleased with the number of romantic involvements I've been having
- 2 I am rather pleased with the number of romantic involvements I've been having

- 3 I am satisfied with the number of romantic involvements I've been having
- 4 I am rather unhappy with the number of romantic involvements I've been having
- 5 I am very unhappy with the number of romantic involvements I've been having

Several items were included asking the subject to evaluate how his or her academic performance (grades) affected interactions with others in a number of areas:

Item 14

- 1 People of opposite sex seem to respect me much less
- 2 People of opposite sex seem to respect me less
- 3 My grades don't affect respect of people of opposite sex toward me
- 4 People of opposite sex seem to respect me more
- 5 People of opposite sex seem to respect me much more

The direct reference to the individual's grades in these items was unfortunate, since it could easily tend to bias responses about social acceptance and popularity, depending on attitudes toward grades, toward popularity, and depending on the subject's own defensiveness.

Procedure

Subjects were tested in University classrooms in groups of 10 to 25. The author carried out all testing.

The tests were administered in the following order:

(a) Tennessee Self Concept Scale (Fitts, 1965), (b) Bem Sex-Role Inventory (Bem, 1974), (c) Personal Data Inventory, and (d) Cue Interpretations, the fear-of-success measure (Tresemer, Note 1).

The Cue Interpretations were administered under standard (neutral) instructions for achievement motivation, as described by McClelland et al. (1953, p. 101) and

Atkinson (1958), except that verbal cues were substituted for pictures. The subjects were instructed to read the instructions to themselves while the experimenter read them aloud. Each verbal cue was printed slightly above the middle of a single page in the booklet, and following each page with a verbal cue was a page for writing the story to that particular cue. The page for writing the story contained the following four sets of questions spaced evenly down the page: 1. What is happening? Who are the persons? 2. What led up to this situation? That is, what happened in the past? 3. What is being thought? What is wanted? By whom? 4. What will happen? What will be done?

All subjects received the same four cues, with the exception that the name of the character differed for the males and females. Males received cues with male characters, females received cues with female characters. The four cues selected for this research were the following:

- 1) Susan (Steven) is walking along the beach in the day.
- 2) Nancy (Richard) is sitting on a chair with a smile on her (his) face.
- 3) Donna (David) has just completed the project on which she (he) has been working for several months.
- 4) After much work, Jane (John) has finally gotten what she (he) wanted.

The order of the four cues was varied four ways, such that each cue appeared first on one of the variations.

Thus one quarter of the subjects responded to cues 1, 2, 3, and 4; one quarter responded to cues 2, 3, 4, and 1; one quarter responded to cues 3, 4, 1, and 2; and one quarter responded to cues 4, 1, 2, and 3.

Subjects were given 20 seconds to look at the cue, then 4 minutes to write a story about the cue. Time was kept by the experimenter, using a stop watch. The experimenter notified subjects when approximately 30 seconds remained to finish the story they were writing and prepare to read the next cue.

Debriefing. At the end of the semester in which subjects were tested, the experimenter visited each of the four introductory psychology classes from which subjects had been drawn, reintroduced herself and distributed a printed explanation of the research to participants. Copies of the explanation were also left in several central locations where participants could pick them up outside of classtime.

The explanation said that the research had been concerned with achievement motivation, which could be measured by noting certain kinds of imagery in the stories they wrote. Specifically, the explanation said, the experimenter was interested in the attitudes of the subjects about success, whether they felt that success (academic, career, etc.) would be a positive thing for them, and so on. It was further explained that the experimenter wanted to

determine how a person's feelings of self-esteem, and sense of masculine or feminine identity related to those attitudes about success.

CHAPTER III

RESULTS

A general method of multiple regression analysis was employed in which the relative contributions of the 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 appropriate statistical method for analyzing the present data than the analysis of variance, which accomodates widely unequal cell sizes only with considerable increase in computation. Formation of groups in the present research promised to be a difficult if not impossible task. Initially dividing subjects into male and female groups, then each of those into high and low scoring groups on self-esteem resulted in four groups which needed to be further divided into "masculine," "androgynous," and "feminine" subgroups. Once each of the four groups had been rank-ordered by Androgyny score, no single set of cut-off points for all four groups could be determined for dividing subjects into masculine, androgynous, and feminine groups, without resulting in cell ns ranging in size from 2 to 47.

Multiple regression allows for the retention of all subjects in an analysis, and provides the same statistical significance information which could be available in the analysis of variance (Cohen, 1968). It thus allows for the expression of fear-of-success as a function of both the significant independent effects of sex-role identification, self-esteem, and cumulative GPA, and all possible interactive effects among the independent variables.

Analysis of the present data was accomplished primarily by three statistical tests: product-moment correlations, stepwise multiple regression, and comparison of means by t tests.

Hypothesis 1

The first finding is that for both the male and the female groups, contrary to prediction, fear-of-success is not significantly correlated with either femininity or masculinity (for females, with femininity: $r(122) = -.013$, N.S.; with masculinity: $r(122) = 0.009$, N.S.; for males, with femininity: $r(105) = .067$, N.S.; with masculinity: $r(105) = .030$, N.S.). Table 1 contains the product-moment correlations for the male and female groups among all variables.

Hypothesis 2

The correlations for both the male and the female groups between fear-of-success and self-esteem are in the predicted direction, but do not reach the conventionally

Table 1
Product-Moment Correlations Between Principle Variables
for Male and Female Groups

	<u>Fear-of- Success</u>	<u>Esteem</u>	<u>Androgyny</u>	<u>GPA</u>	<u>Masculinity</u>	<u>Femininity</u>	<u>Social Desirability</u>
Fear-of-Success							
Esteem	-.110 (-.143) ^a						
Androgyny	-.012 (-.004)	-.179 (-.278)**					
GPA	-.215* (-.287)**	.095 (.172)	.105 (-.111)				
Masculinity	-.009 (-.030)	.437*** (.603)***	-.727*** (-.722)***	.099 (.066)			
Femininity	-.013 (-.067)	.279** (.346)***	.514*** (.435)***	.029 (-.041)	.178 (.274)**		
Social Desirability	-.135 (-.201)*	.658*** (.739)***	-.015 (-.146)	.146 (.150)	.418*** (.489)***	.511*** (.371)***	

* p < .05
** p < .01
*** p < .001

^aMale correlations are in parentheses.

accepted level of significance (for females: $r(122) = -.110$, $p < .12$; for males: $r(105) = -.142$, $p < .10$).

Hypothesis 3

In both the male and the female groups, the correlations between fear-of-success and cumulative grade-point-average (GPA) were significant, but not in the predicted direction (for females: $r(114) = -.287$, $p < .01$; for males: $r(95) = -.215$, $p < .05$). Thus higher levels of fear-of-success tend to be associated with lower GPAs.

Stepwise multiple regression runs for the male and female groups using fear-of-success as the dependent or criterion variable, and BSRI masculinity, BSRI femininity, BSRI social desirability, and self-esteem as independent or predictor variables yielded no significant effects, and accounted for only .027 of the variance in fear-of-success for females and .007 of the variance in fear-of-success for males. Substituting the BSRI androgyny score for the separate masculinity and femininity scores did not change the magnitude of these effects. Stepwise multiple regressions for both male and female groups using fear-of-success as the dependent variable and androgyny, self-esteem, and cumulative GPA as independent or predictor variables yielded no significant main or interactive effects, and accounted for only .061 of the variance in fear-of-success for females and .094 of the variance in fear-of-success for the male group.

Hypothesis 1 Examined

It might be concluded from the failure of Hypothesis 1 to be supported that, in fact, fear-of-success has nothing to do with subjects' sex-role orientation. Yet, in view of the many suggestions from past findings (e.g., Alper, 1973; Horner, 1968, 1972; Parker, 1972), such an interpretation may be premature. The fact that the new scoring system categories were derived from a testing situation in which women were told they had just beat their male partners on a difficult math test even further suggests that the categories so developed should have something to do with sex-role concerns.

The new empirically derived scoring system consists of the six best predictors of performance decreases following the above-mentioned arousal condition where female subjects were told they beat their male partners. It was determined to explore the relationships between each of the six scoring categories and both femininity and masculinity. An examination of the product-moment correlations, presented in Table 2, reveals that significant relationships do exist among several of the variables.

The most strongly related variables are (a) Relief (FOSD) negatively with masculinity in males ($p < .01$), and (b) Interpersonal Engagement (FOSC) positively with femininity in both females and males ($p < .01$). Thus, males scoring high on masculinity were less likely than low

Table 2

Product-Moment Correlations Between Fear-of-Success

Categories and Masculinity and Femininity

for Male and Female Groups^a

	<u>FOSA</u> ^b	<u>FOSB</u>	<u>FOSC</u>	<u>FOSD</u>	<u>FOSE</u>	<u>FOSF</u>
Masculinity	-.082 (.038)	-.131* (-.020)	.073 (.119)	.060 (-.221)***	-.052 (-.101)	.060 (.099)
Femininity	-.078 (-.077)	-.157** (-.112)	.201*** (.233)***	.014 (-.041)	.105 (-.059)	-.092 (.114)

^aMale Correlations are in parentheses.

*p < .10
 **p < .05
 ***p < .01

^bFOSA = Non-Contingent Negative Consequences
 FOSB = Contingent Negative Consequences
 FOSC = Interpersonal Engagement
 FOSD = Relief
 FOSE = No Instrumental Activity
 FOSF = No Mention of Other Persons
 (counter-indicative category)

scorers to project unexpected or "magical" relief from misfortune in their stories. And females and males scoring high on femininity were likely to project concerns about interpersonal involvement.

In addition, Contingent Negative Consequences (FOSB) correlated negatively with both masculinity ($p < .10$) and femininity ($p < .05$) in females only. Thus females scoring high on either masculinity or femininity were less likely to project bad consequences resulting from their own responsibility.

Hypothesis 2 Examined

The prediction that self-esteem should be negatively associated with fear-of-success in both females and males was not supported, although the correlations were in the predicted direction. Inspection of the correlations, presented in Table 3, between self-esteem and the several fear-of-success subcategories shows that significant relationships exist among several of the variables. For clarity of treatment, these will be discussed in order of the fear-of-success categories from "FOSA" to "FOSF".

FOSA or Non-Contingent Negative Consequences was negatively related to self-esteem in both females and males (females, $p < .01$; males, $p < .10$). The correlations indicate that higher esteem subjects are unlikely to project bad consequences resulting from outside forces.

Table 3

Product-Moment Correlations Between Fear-of-Success
and Self-Esteem for Male and Female Groups^a

	<u>FOSA</u> ^b	<u>FOSB</u>	<u>FOSC</u>	<u>FOSD</u>	<u>FOSE</u>	<u>FOSF</u>
Self-Esteem	-.209*** (-.131)*	-.288**** (-.241)***	.184** (.037)	-.181** (-.195)**	.024 (-.125)*	-.013 (.067)

^aMale correlations are in parentheses.

^bFOSA = Non-Contingent Negative Consequences
FOSB = Contingent Negative Consequences
FOSC = Interpersonal Engagement
FOSD = Relief
FOSE = No Instrumental Activity
FOSF = No Mention of Other Persons
(counter-indicative category)

*p < .10
**p < .05
***p < .01
****p < .001

FOSB or Contingent Negative Consequences was negatively related to self-esteem in both females and males (females, $p < .001$; males, $p < .01$). Thus, higher esteem subjects are unlikely to project bad consequences caused by their own feelings.

FOSC or Interpersonal Engagement is positively related to self-esteem in females ($p < .05$) but unrelated in males. High esteem females are thus more likely to be concerned about interpersonal involvements than are low esteem females. Higher esteem males are as likely to be concerned about such matters as lower esteem males, but as a group males show less of this concern than females as a group (see Table 3, $t(230) = 3.11$, $p < .01$).

FOSD or Relief is negatively related to self-esteem in both females and males ($p < .05$). High esteem subjects of both sexes are thus less likely to imagine sudden, magical relief from misfortune than are low esteem subjects.

FOSE or No Instrumental Activity tends to be negatively related to self-esteem in males ($p < .10$) but unrelated in females. Higher esteem males are thus less likely to project situations in which they engage in no goal-directed behavior at all than are lower esteem males. Higher esteem females are no more nor less likely to project such situations than are lower esteem females.

FOSF or No Mention of Other Persons is not signifi-

cantly related to self-esteem in either female or male subjects.

Other Results

Several other significant relationships emerged from the data, which, because they go beyond the limits of the original hypotheses, will be considered descriptive rather than inferential. Among these relationships are several sex differences. All of them are differences on subcategories of the total scores. Males and females did not differ significantly on most total scores, i.e., on total fear-of-success ($\underline{t}(229) = .90$, N.S.), self-esteem ($\underline{t}(229) = 1.56$, N.S.), or cumulative GPA ($\underline{t}(214) = .25$, N.S.).

Ninety per cent of the females, and 80 per cent of the males showed at least some fear-of-success imagery. For females, scores ranged from -6 to +14, for males scores ranged from -6 to +19. Frequency distributions of total fear-of-success scores for females and males are presented in Table 4.

Within the several fear-of-success subcategories, males showed more Contingent Negative Consequences than did females ($\underline{t}(229) = 2.40$, $p < .02$) and more often than females showed the fear-of-success counter-indicative No Mention of Other Persons ($\underline{t}(229) = 1.94$, $p < .05$). Females gave more Interpersonal Engagement in their stories than males ($\underline{t}(229) = 3.11$, $p < .002$). Of the four cues, males and

Table 4
Frequency Distributions of Total Fear-of-Success Scores
for Females and Males

<u>Females</u>				<u>Males</u>			
<u>Score</u>	<u>Frequency</u>	<u>Rounded %</u>	<u>Cumulative %</u>	<u>Score</u>	<u>Frequency</u>	<u>Rounded %</u>	<u>Cumulative %</u>
-6	1	1	1	-6	1	1	1
-4	2	2	2	-5	1	1	2
-3	2	2	4	-4	4	4	6
-2	2	2	6	-3	3	3	8
-1	4	3	9	-2	2	2	10
0	2	2	10	-1	5	5	15
1	5	4	15	0	5	5	20
2	14	11	26	1	3	3	22
3	14	11	37	2	9	8	31
4	13	10	48	3	9	8	39
5	12	10	57	4	11	10	50
6	14	11	69	5	10	9	59
7	7	6	74	6	6	6	64
8	8	6	81	7	13	12	77
9	5	4	85	8	6	6	82
10	5	4	89	9	7	7	89
11	3	2	91	10	3	3	92
12	7	6	97	11	3	3	94
13	3	2	99	12	3	3	97
14	1	1	100	13	1	1	98
				15	1	1	99
				19	1	1	100

females differed significantly in fear-of-success imagery on only one. Females showed more fear-of-success than did males on the Sitting-with-Smile cue ("Nancy (Richard) is sitting in a chair with a smile on her (his) face."). Means, standard deviations, and t s for all fear-of-success categories and all four cues are presented in Tables 5 and 6 respectively.

It is interesting to note that fear-of-success imagery is markedly lower for both males and females on cues 3 and 4, the two "task" cues, i.e., the cues that might be expected to elicit fear-of-success, than on cues 1 and 2, the two "neutral" cues ($p < .001$). Mean fear-of-success scores for the total sample of 231 subjects, on the four cues, are presented in Table 7.

On the Bem Sex-Role Inventory (BSRI) variables, it would be expected both intuitively and from Bem's (Note 2) findings with two undergraduate samples, that males and females would differ significantly, and they did. Females rated themselves significantly higher than did males on the characteristics constituting the femininity scale ($t(229) = 7.53, p < .001$), while males rated themselves significantly higher than did females on the masculinity characteristics ($t(229) = 4.30, p < .001$). On the androgyny score, composed of the difference between the subject's average masculine and average feminine ratings normalized with respect to the variances of the masculinity and femininity ratings,

Table 5

Means, Standard Deviations, and ts for Males and Females
on All Fear-of-Success Categories

<u>Category</u>		<u>Females</u>	<u>Males</u>	<u>t</u>
Total Fear-of-Success	<u>M</u> <u>SD</u>	5.01 (4.05)	4.50 (4.56)	0.90
FOSA. Non-Contingent Negative Consequences	<u>M</u> <u>SD</u>	1.39 (1.62)	1.79 (1.84)	1.79*
FOSB. Contingent Negative Consequences	<u>M</u> <u>SD</u>	0.63 (1.12)	1.05 (1.51)	2.40***
FOSC. Interpersonal Engagement	<u>M</u> <u>SD</u>	3.00 (1.81)	2.24 (1.88)	3.11****
FOSD. Relief	<u>M</u> <u>SD</u>	0.50 (0.69)	0.35 (0.55)	1.85*
FOSE. No Instrumental Activity	<u>M</u> <u>SD</u>	1.22 (0.82)	1.26 (0.86)	0.31
FOSF. No Mention of Others	<u>M</u> <u>SD</u>	-1.66 (1.78)	-2.17 (2.18)	1.94**

*p < .10

**p < .05

***p < .02

****p < .001

Table 6

Means, Standard Deviations, and ts for Males and Females
on Four Fear-of-Success Cues

<u>Cues</u>		<u>Females</u>	<u>Males</u>	<u>t</u>
1. "Susan (Steven) is walking along the beach late in the day."	<u>M</u>	1.98	1.94	.15
	<u>SD</u>	(2.07)	(2.14)	
2. "Nancy (Richard) is sitting in a chair with a smile on her (his) face."	<u>M</u>	2.24	1.68	2.29*
	<u>SD</u>	(1.77)	(1.88)	
3. "After much work, Jane (John) has finally gotten what she (he) wanted."	<u>M</u>	.65	.65	.00
	<u>SD</u>	(1.96)	(1.96)	
4. "Donna (David) has finally completed the project she (he) has been working on for several months."	<u>M</u>	.19	.22	.14
	<u>SD</u>	(1.49)	(1.73)	

Table 7
Means and Standard Deviations for Total Sample
on Fear-of-Success for Four Cues^a

<u>Cue</u>	<u>M</u>	<u>SD</u>
"Late-in-Day" Cue 1	1.96	(2.10)
"Sitting-with-Smile" Cue 2	1.98	(1.85)
<hr/>		
"Got-What-Wanted" Cue 3	0.65	(1.95)
<hr/>		
"Completed-Project" Cue 4	0.21	(1.60)

^aMeans separated by a single line are significantly different from each other at the .01 level; by double lines, at the .001 level.

females and males again differed significantly, females being more sex-typed in the feminine direction, indicated by a positive t score (.96), males being more sex-typed in the masculine direction, indicated by a negative t score (-1.21). Neither group mean was significantly closer to zero; that is, neither was significantly more androgynous, than the other ($t(229) = 1.03$, N.S.). Finally, the female group scored significantly higher on BSRI social desirability than the male group ($t(229) = 2.01$, $p .05$), indicating that these females tended to describe themselves in a somewhat more socially desirable way than did males. Means, standard deviations, and t s for males and females on all BSRI variables are presented in Table 8. It is well to note that the above-mentioned difference in the average social desirability ratings, while significant, represents in fact a very small amount. If a rating of 1 indicates a strong tendency to describe oneself in a socially undesirable direction, then a rating of 4 would indicate a tendency to respond in neither a more socially desirable nor a more socially undesirable manner, that is, a neutral tendency. In the present study, males and females tended to describe themselves in a somewhat desirable direction and produced average ratings very similar to each other, i.e., around 5.

Findings Related to Personal Variables

The relationship of sex and cumulative GPA to the several personal variables of interest was examined by means

Table 8
Means, Standard Deviations, and ts for Females and Males
on All Bem Sex-Role Inventory (BSRI) Variables

<u>BSRI Variable</u>		<u>Females</u>	<u>Males</u>	<u>t</u>
Average Feminine Rating	<u>M</u>	5.18	4.63	7.53***
	<u>SD</u>	(.56)	(.53)	
Average Masculine Rating	<u>M</u>	4.76	5.17	4.30***
	<u>SD</u>	(.71)	(.76)	
Androgyny <u>t</u> Score	<u>M</u>	.96	-1.21	8.94***
	<u>SD</u>	(1.88)	(1.79)	
Average Social Desirability Rating	<u>M</u>	5.10	4.97	2.01*
	<u>SD</u>	(.53)	(.50)	

*p < .05
***p < .001

of 2-way analyses of variance. Some of the personal variables, it will be recalled, were included in an attempt to shed light on one apparent assumption attributed by previous researchers to high fear-of-success women. Previous researchers (e.g., Hoffman, 1974; Horner, 1968) concluded that high fear-of-success women are ambivalent about success because they believe that successful women must be unfeminine and socially unpopular. High GPA females were designated in the present research as the "successful" women. (See Appendix A for a copy of the personal variables booklet, titled "Personal Activities.") Since the cumulative GPA means for the male and female groups were not significantly different (males: 2.67, females: 2.69, $t(214) = .25$, N.S.), high and low GPA groups for males and females were formed by a mean-split, using the same average mean (2.68) for each group. Significant main effects for sex only were found in the following variables (effects were probed by means of Duncan's Multiple Range Test): (a) females reported significantly more time spent studying in high school than males (item 6; approximate means, females: 1-1/2 hours, males: less than 1 hour) and also more time spent studying in college (item 7; females: almost 3 hours, males: 2 hours) and (b) in comparison to males, females also reported asking others' advice in matters besides studies significantly more frequently (item 15).

Significant main effects for GPA level only were

found for the following variables: (a) high-GPA subjects reported receiving more high school academic honors than low-GPA subjects (item 4) and (b) high-GPA subjects also reported more time spent studying in both high school and college than low-GPA subjects (items 6 and 7). It is not surprising that they rated themselves more successful as students than did low-GPA subjects (item 8).

An important qualification should be made with respect to the validity of this and several other variables, which will be enumerated later. The "student success" item correlated moderately and significantly with the BSRI Social Desirability Scale ($r(116) = .326, p < .001$) suggesting that "student success" was either tapping the subject's tendency to respond in a socially desirable manner, or that successful students actually see themselves more favorably than less successful students.

High-GPA subjects responded that people of the same sex seem to respect them a little more because of their grades, while low-GPA subjects reported that they feel their grades do not affect the respect of others of the same sex toward them (item 11). High-GPA subjects tended to report that others seem to take what they say somewhat more seriously (because of their grades), while low-GPA subjects tended to say that their grades do not have anything to do with whether others take them seriously (item 12). High- and low-GPA subjects differed slightly but

significantly in how often they felt others asked their help with studies, high-GPA subjects reporting the greater frequency (item 13). Finally, the high- and low-GPA groups differed in how much persons of the opposite sex were believed to respect them, the high-GPA group giving the somewhat higher rating (item 14). The preceding four items are, as noted in Chapter II, unfortunately contaminated by the inclusion of the instruction to the subject to indicate how "academic performance (grades, etc.) affect(s) your interactions with others...." (*italics added*) thus, easily biasing subjects' reports of their interactions. Correlations between ratings on these items and the BSRI Social Desirability Scale are reported below which bear this out.

There were no significant effects for either GPA level or sex on items rating others' friendliness (item 9) or subject's ease in getting dates (item 10) (both in relation to the subject's academic performance) or subject's seeking help with studies from others (item 16). On three items intended to tap feelings of social acceptance or popularity (without reference to academic performance), there were again no significant effects. These were item 17, rating feelings of loneliness and distance from people; item 18, rating satisfaction with number of social contacts; and item 19, rating satisfaction with number of romantic involvements.

One significant interaction between sex and GPA level was found ($F(1,227) = 4.36, p < .05$) on the item rating the individual's success as a student (item 8). A significant main effect for GPA level ($F(1,227) = 33.45, p < .001$) was also found on this item, as stated previously. Figure 1 represents the mean ratings on student success for the four groups involved in this interaction. Both the high-GPA male and the high-GPA female groups are significantly higher than the low-GPA male and the low-GPA female groups. Males and females differ significantly only within low-GPA, where females exceed males in their ratings of their own student success. At the high-GPA level, males and females do not differ significantly. This and a number of other variables correlate rather strongly with BSRI social desirability, including several variables which might be expected to have a sizable response-bias component and one which theoretically should not have. These correlations are reported in Table 9 and will be discussed now so that other findings may be reported in light of them.

The large and highly significant correlations in both the male and female groups between self-esteem and social desirability were unexpected. The meaning of response sets has been a topic of controversy ever since Cronbach (1946) introduced the concept. Although the evidence is by no means in, it is probably appropriate to suggest the possibility of decreased validity in personality

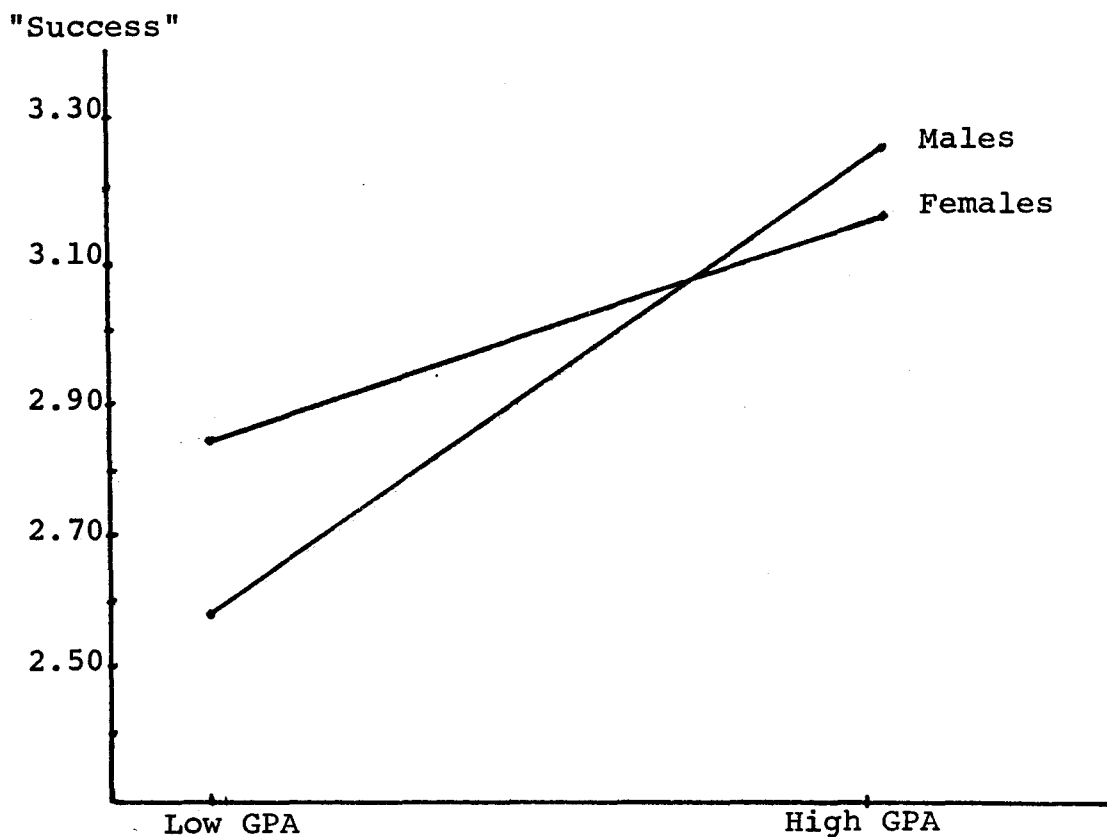


Figure 1. Mean Self-Ratings of Student Success for High-GPA Male, High-GPA Female, Low-GPA Male, and Low-GPA Female Groups

Table 9
Correlations of Several Variables with Social Desirability
for Male and Female Groups^a

		<u>Self-Esteem</u>	<u>Fear-of-Success Total</u>	<u>Masculinity</u>	<u>Femininity</u>	<u>Androgyny</u>
Row 1						
Social Desir- ability	(Males)	.739***	-.201*	.489***	.371***	-.146
	(Females)	.658***	-.013	.418***	.511***	-.015
Personal Variables						
		<u>P8: Student Success</u>	<u>P9: Friendliness of Others</u>	<u>P10: Help in Getting Dates</u>	<u>P11: Respect of Same Sex</u>	
Row 2						
Social Desir- ability	(Males)	.239*	-.368***	-.119	.273**	
	(Females)	.326***	-.008	-.095	.237	
		<u>P12: Others Take Seriously</u>	<u>P13: Others Ask Study Help</u>	<u>P14: Respect of Opposite Sex</u>	<u>P15: I Ask Per- sonal Advice</u>	
Row 3						
Social Desir- ability	(Males)	-.161	-.164	.240*	.075	
	(Females)	-.307**	-.135	.137	.243*	
		<u>P16: I Ask Study Help</u>	<u>P17: I Feel Lonely</u>	<u>P18: Satisfaction with Social Life</u>	<u>P19: Satisfaction with Romantic Life</u>	
Row 4						
Social Desir- ability	(Males)	.116	.378***	.210*	-.122	
	(Females)	-.233*	.442***	.279**	-.175	

*p < .05
**p < .01
***p < .001

^aSee Appendix A for copy of personal variables test booklet, called "Personal Activities."

instruments highly correlated with a social desirability measure. However, an alternative explanation in terms of "overlapping meanings" will be offered in Chapter IV.

Fear-of-success was significantly related to social desirability for males ($r(105) = .201, p < .02$) but not for females.

In line with Bem's (1974) findings, the present research yielded sizable and significant correlations between BSRI social desirability and BSRI masculinity and femininity. On masculinity, the correlations for males was .436; for females, .421 ($p < .001$). On femininity, the correlation for males was .308; for females, .505 ($p < .001$). Bem predicted that masculinity and femininity would be correlated with social desirability because of the fact that the masculine and feminine items are all relatively desirable, even for the "inappropriate" sex. The Androgyny score, however, in this study as in Bem's findings, appears to be measuring a specific tendency to describe oneself in accordance with sex-typed standards of desirable behavior for men and women and not simply tapping a social desirability response set.

Of the personal variables, items 9 through 14 were items asking the subject to indicate how his or her academic performance affected his or her interactions with others in several areas. It can be seen from Table 9 that several items were, as suspected, significantly correlated with

social desirability. Correlations will be noted here only for items on which significant effects were found for either sex or GPA level, namely items 11 through 14. Of these, only item 13, rating how often others seek the subject's help with studies, is not significantly correlated with social desirability. Of the three items intended to indicate whether academically successful subjects, especially women, are more or less popular or socially accepted, two, items 17 and 18, rating loneliness, and satisfaction with social contacts, are related to social desirability. Item 19, measuring satisfaction with romantic contacts, is not so related.

To summarize the more pertinent of these findings:

In comparison to low GPA students' ratings, high GPA students both male and female reported others to be about as friendly, and reported that others ask their help with studies about as often. They described the ease of finding dates to be about the same as that described by low GPA students. And their self ratings of feelings of loneliness, satisfaction with both social and romantic involvements were not significantly different from those of low GPA students, both male and female. The belief indicated by high fear-of-success women in the past, that successful women must be unpopular and lonely, is not demonstrated by these results. However, most of these items correlate significantly with the Bem social desirability scale.

CHAPTER IV

DISCUSSION

Femininity, Masculinity and Fear-of-Success

Although, contrary to prediction (Hypothesis 1), masculinity and femininity scores in both males and females were not significantly related to fear-of-success scores, both masculinity and femininity did relate significantly to several of the six fear-of-success subcategories. To review, in males Relief (FOSD) was negatively correlated with masculinity; in both males and females Interpersonal Engagement (FOSC) was positively correlated with femininity; and in females Contingent Negative Consequences (FOSB) was negatively correlated with both masculinity and femininity. Thus in comparison to low scorers, males scoring high on masculinity were not likely to project unexpected or "magical" relief from misfortune. Females and males scoring high on femininity were likely to project concerns about interpersonal involvements. And females scoring high on either masculinity or femininity were unlikely to tell stories about bad consequences resulting from their own responsibility.

The complications inherent in predicting overt behavior from the fantasy productions in projective tests

have been discussed elsewhere (e.g., Fisher & Morton, 1965; Korner, 1965). Therefore, in the absence of any behavioral measures, it is probably safest to avoid drawing even tentative conclusions about the subjects' actual overt behavior outside the testing situation and to confine the present interpretations to presumed attitudes or concerns.

The negative correlations between masculinity and Relief (FOSD) in male subjects fits a prevailing stereotype of masculinity; that is, the nature of the category Relief as scored is that it comes about apart from any efforts on the part of the character in question. The character is, in a sense, the passive recipient of the relief. One aspect of stereotypic masculinity is that it is incompatible with passivity. Thus, high masculine males would be expected to give the somewhat passive Relief response less often than would low masculine males.

As for the positive correlation between femininity and Interpersonal Engagement (FOSC), it too conforms to a common stereotype, that of traditional femininity. According to the stereotype, as illustrated in part by some of the BSRI femininity items, women traditionally are believed to be more sensitive to the needs of others than are men, more sympathetic and understanding, possessed of greater social skills, and more interested in romance. It is therefore not surprising that these variables should be positively related.

The inverse correlation between Contingent Negative Consequences and both femininity and masculinity is less susceptible to interpretation in terms of sex-role stereotypes. It indicates that either high feminine or high masculine females are less likely to imagine self-caused troubles. When one recalls that masculinity and femininity are both positively and significantly related to self-esteem (see Table 1), these relationships can perhaps be explained in terms of the optimism or self-confidence which either high masculine or high feminine females feel. The more confident or optimistic the individual feels, the less likely she is, in an unstructured situation, to fantasize self-caused negative consequences.

In sum, although neither femininity nor masculinity was significantly related to fear-of-success total scores, each of the sex-role scales was significantly related to certain of the fear-of-success component scoring categories. The more important of these relationships are summarized here. In both males and females, femininity and the component category Interpersonal Engagement were positively related, meaning that subjects who described themselves as more "feminine" were more likely than low feminine subjects to be concerned in their stories with interpersonal involvements. In male subjects, masculinity and the component category Relief were negatively related, so that high masculine males were less likely than low masculine males

to project sudden, magical remedies to problems in their stories. In female subjects, masculinity and femininity were both negatively related to the subcategory Contingent Negative Consequences. This means that both high feminine females and high masculine females were less likely than their lower scoring counterparts to imagine story situations involving self-caused misfortunes.

Self-Esteem and Fear-of-Success

Hypothesis 2 of the present research, that self-esteem should be negatively associated with fear-of-success in both females and males, was not supported. The correlations were in the predicted direction, but were not significant at the .05 level, though the correlation for males tended toward significance. While self-esteem was not significantly related to total fear-of-success scores, it was significantly related to several of the fear-of-success scoring categories.

In females and males both Non-Contingent Negative Consequences (FOSA) and Contingent Negative Consequences (FOSB) were negatively related to self-esteem, indicating that high esteem subjects of both sexes were less likely than low esteem subjects to write stories about bad consequences resulting either from outside forces or from their own failings.

The significant negative correlations between self-esteem and both sorts of Negative Consequences (FOSA and

FOSB) suggest a general attitude of confidence and optimism in subjects of higher esteem. They neither imagine themselves making critical errors or omission, nor do they imagine externally caused misfortunes, as often as do lower esteem subjects. This finding seems intuitively obvious and would represent a direct confirmation of Hypothesis 2 (predicting a negative correlation between self-esteem and fear-of-success) if fear-of-success had been scored by Horner's method, that is, as negative consequences arising out of the situation described by the verbal cues (see Tresemer, 1974b).

Self-esteem was found to be positively correlated in females with Interpersonal Engagement (FOSC). Part of one's self-concept includes one's evaluation of oneself in relation to other people. For example, Fitts (1965) made Social Self one of five major subcategories of total positive Self-Esteem in the Tennessee Self-Concept Scale. Thus, a relatively high level of self-esteem would include a positive evaluation of one's interactions with other people. In the present research, females of higher esteem tended to be concerned with interpersonal involvements significantly more than lower esteem females. In males, level of self-esteem was not related to concern with interpersonal involvement, indicating that high esteem males might be concerned or unconcerned with interpersonal engagement. The finding supports the widely held belief

that females are more "sociable," more concerned with others, and more socially skilled than are males. Sex differences and a more extensive discussion of this particular belief regarding male and female sociability will be treated in a separate section below.

The correlation between Interpersonal Engagement (FOSE) and self-esteem in females is the only relationship of all the significant correlations between self-esteem and the fear-of-success categories which was positive. The rest were negative. This single positive correlation, linking higher esteem with concern with interpersonal involvement, accounts in part for the failure of the negative relationship between self-esteem and total fear-of-success in females to be significant. The positive correlation statistically cancels out a portion of the negative correlation.

The negative relationship between self-esteem and Relief (FOSD) in both females and males indicates that higher esteem subjects tend to project sudden, unexpected relief from trouble less often than do lower esteem subjects. If one conceptualizes the theme of Relief as arising out of a somewhat passive orientation, as suggested previously, and notes the frequent positive relationship found between self-esteem and feelings of autonomy, independence, and active mastery (e.g., Connell & Johnson, 1970; Stericker & Johnson, 1974), then this correlation is easy

to understand. Individuals who see themselves as relatively independent, active, and autonomous tend to have strong feelings of self-worth and esteem and would tend also to imagine self-initiated solutions to problems rather than the externally caused "magical" ones characteristic of Relief.

The negative correlation between self-esteem and No Instrumental Activity (FOSE) in male subjects provides another variation of the active, autonomous, independent model of high self-esteem just described. The higher esteem male is more likely to be active, independent, etc., and is somewhat less likely ($p < .10$) to write stories in which there is no goal-directed activity than is the lower esteem male.

To summarize the results on self-esteem and fear-of-success, higher esteem subjects of both sexes were less likely than low esteem subjects to imagine negative consequences, especially those caused by their own mistakes or shortcomings. They were also less likely to imagine sudden, externally generated relief from trouble. Higher esteem female subjects were more likely than lower esteem females to be concerned with interpersonal involvements. Higher esteem male subjects were somewhat less likely than lower esteem males to write stories involving no goal-directed activity.

Self-Esteem and Social Desirability

The very high correlation between the BSRI Social Desirability scale scores and self-esteem scores (.658 for females; .739 for males) suggests at least two things. First, it may mean that the Tennessee Self Concept Scale (Fitts, 1965) is not measuring "true" self-esteem so much as the tendency to present oneself in a favorable light. Or put another way, both tests measure, at least in part, the same thing, the social desirability response set. However, inasmuch as the BSRI Social Desirability scale is made up not of statements with specific reference to social desirability issues, but rather of self-descriptive adjectives, an alternative explanation is offered. The two instruments may actually measure two different, but highly related dimensions. This is the "overlapping meanings" explanation. That is, the traits and abilities sampled by the self-esteem measure (e.g., "I have a lot of self control." "I am an important person to my friends and family," "I am as sociable as I want to be," "I wish I could be more trustworthy") may overlap significantly with the traits and abilities sampled by the social desirability measure (e.g., "reliable," "likable," "friendly," "truthful"). Thus the responses which lead to a high social desirability score may relate logically to the responses leading to a high self-esteem score. High scores on the two instruments could simply be two different indications of positive self-concept.

Whether the "overlapping meanings" interpretation or the "decreased validity" interpretation is more appropriate for the present high correlations between self-esteem and the social desirability scale is a question which unfortunately cannot be laid to rest without more extensive conceptual work with both of these instruments.

Masculinity, Femininity, and Social Desirability

As for the sizable correlations between the Social Desirability scale and both masculinity (females, .418; males, .489) and femininity (females, .511; males, .371), again, some problems in interpretation exist, in spite of Bem's (1974) observation that the correlations were expected. Perhaps a sex-role inventory could be devised that is freer of possible social desirability influence, by including equal numbers of not only positive but also negative sex-typed items. Instead of asking subjects to judge whether an item is more socially desirable in American society for a man or a woman, as Bem did, one might ask subjects to judge whether items, both positive and negative, are more "typical" of one sex or the other.

Grade-Point-Average and Fear-of-Success

Hypothesis 3, that grade-point-average (GPA) would be positively related to fear-of-success in both females and males, was disconfirmed. The relationship was significant and negative for both sexes. Thus, higher levels of fear-of-success tended to be associated with lower GPAs.

The hypothesis was developed from Horner's (1968) belief that fear-of-success should be more characteristic of high-ability, high-achievement-oriented women than of low-ability, low-achievement-oriented women, who presumably would neither want nor be capable of achieving success. But the present results suggest that fear-of-success may have been an inhibitor of academic performance for these subjects, being associated, as it was, with lower grades.

The association between high fear-of-success and lower grades makes a certain amount of logical sense when the separate fear-of-success categories are examined. An individual who scored low on total fear-of-success would tend to score low on each of the component fear-of-success categories, though the correspondence would, of course, not be perfect. Such an individual would tend not to imagine bad consequences happening to himself or herself (low FOSA and FOSB), would tend not to be overly concerned with strong interpersonal relationships (low FOSC), would think in terms of doing things to solve problems (low FOSE) and doing them alone (high FOSF), rather than expecting help to come magically from outside (low FOSD). The conglomerate picture of this individual suggests an active, self-sufficient person, perhaps something of a "lone wolf," qualities which ought to help make a good student, one who gets good grades.

Yet, in view of the mixed results of previous research, the present results should be viewed as only very

tentative evidence of a negative association between ability and fear-of-success. Kresojevich (1972) found that high-GPA college women produced significantly more fear-of-success imagery than low-GPA women, thus supporting the high-ability/high-fear-of-success hypothesis. Other studies (e.g., Peplau, 1973) have not supported the hypothesis. Predicting actual achievement in the form of grades from individual differences in motivation, expectancy, or attributional measures is a highly complex business as, among others, Raynor (1970) has shown. In two studies, he predicted and found that students high in achievement motivation and low in test anxiety earned higher grades when they perceived a good grade in a particular college course to be related to their own future career success than when they did not. The expected superiority in grades of the high-achievement/low-test anxiety over the low-achievement/high-test anxiety group was not found in one study and in the other, only when success was perceived as instrumental to future career success. Thus, achievement motivation alone did not reliably predict performance. Achievement motivation together with expected future outcomes and their relation to the success or failure of the immediate task at hand was a better predictor. How important subjects perceive their grades to be to future career plans is difficult to estimate without direct measurement.

It is probably an oversimplification to hypothesize that fear-of-success is more typical of either high- or low-GPA subjects. As in virtually every area of personality or motivational study, many factors must interact to determine whether an individual in a given situation inhibits his or her potential to perform. For example, Peplau (1973) showed that high fear-of-success women with a traditionally feminine orientation performed worse on a verbal anagrams task when competing against their boyfriends than when teaming up with them against an opponent team. For high fear-of-success women with more "liberated" attitudes or for low fear-of-success women and for all male subjects, the identity of the competitor made no difference in their performance. Tresemer (1974) found in his high school subjects that Horner's fear-of-success (original scoring method of negative consequences only) was not related to IQ, ability level in school, or performance on achievement tasks in a neutral setting, in direct contradiction to Horner's (1968) suggestion.

Therefore, in the absence of additional measures for such things as perceived importance of grades to future career plans, the present negative relationship between grade-point-average and fear-of-success should be interpreted with caution.

Sex Differences in Fear-of-success

On mean total fear-of-success, males and females in

the present research did not differ significantly. The percentage of males and females scoring +1 or higher by the new fear-of-success scoring system was relatively high, 80% for males, 90% for females. Thus, males and females showed fairly high and approximately equal amounts of fear-of-success.

Among the six fear-of-success categories, several sex differences were found. Males tended to score higher than females on FOSA, Non-Contingent Negative Consequences ($p < .10$), and scored significantly higher than females on FOSB, Contingent Negative Consequences ($p < .02$). Tresemer (1974) also found a "slight prominence of Horner's fear-of-success (Negative Consequences)...among males" (p. 231) when he tested high school students for fear-of-success using ambiguous cues.

In a study of sex differences in fantasy patterns, May (1966) argued that, because of the different psycho-sexual experiences of the two sexes, males tend to produce "fantasied enhancement followed by deprivation," that is, a favorable situation followed by a worsening of the situation, while females more often produce the reverse pattern. The former pattern, enhancement followed by deprivation, corresponds to the present two Negative Consequences categories (without any negative antecedents), and the latter pattern, deprivation followed by enhancement, corresponds to a "Negative Antecedent" category used by Tresemer (1974b) and

others, which was not used in the present research. The male pattern described by May, however, is the pattern we have found here.

Females scored significantly higher ($p < .001$) than males on FOSC, Interpersonal Engagement, indicating they more often wrote stories about important interpersonal relationships than did males. This finding confirms the prevailing stereotype mentioned earlier that women are more interested in and sensitive to others, more understanding, more socially skilled, and more interested in romance. However, it is in opposition to the conclusion drawn by Maccoby and Jacklin (1974) from their extensive review of research evidence on sex differences in attachment, affiliation, and positive interactions of all kinds. In subjects of all ages from infancy to adulthood, their survey showed surprisingly little sex differentiation and high "sociability" in both sexes.

However, Tresemer's (1974b) analysis of story goals to the "Got-What-Wanted" cue (a cue also used in the present study) revealed "striking traditionality" of content. Females were much more concerned with making gifts, helping others, being accepted, having dates, owning horses, while males were extremely interested in cars, violence, making jokes, and having sex orgies (p. 223). Stories to Tresemer's other three cues, the Sitting-with-Smile cue, the "Completed-Project cue, and the Pleased cue: ("Joe (Anne)

seems to be particularly pleased") produced similar sex differences in content.

These apparently contradictory findings may not actually contradict each other. Tresemer's results and the present findings show a decided sex difference in fantasy productions while Maccoby and Jacklin's survey indicated relatively little sex differentiation in studies of overt behavior. It may be that males and females incorporate the relevant stereotypes into their own attitudes and fantasies, even though in practice they are equally sociable, nurturing, etc.

The finding that females tended to score higher than males on FOSD, Relief, should be viewed tentatively since the difference did not reach the conventionally accepted .05 level of significant ($p < .10$), and since means for both females and males were extremely low (females: .500; males: .346). If Relief is seen as a somewhat passively oriented theme, as suggested previously, then another common sex-role stereotype is supported by this finding, that of passivity in females. However, a more useful explanation may come from Maccoby and Jacklin's (1974) review of research in sex differences in self-concept. Although on most measures girls and women show at least as much satisfaction with themselves as do boys and men, some sex differentiation does occur during the college years. College women are found to have less confidence than men in

ability to perform well on a variety of tasks; they have less sense of being able to control events that affect them and tend to define themselves more in social terms (e.g., "sympathetic" rather than "fair-minded"). Thus, among other things, college women tend to become "externalizers" with regard to locus of control measures, rather than "internalizers." That pattern is very tentatively supported by the present finding that women told stories involving unexpected, externally caused relief from trouble more often than did men.

Males and females did not differ significantly in their tendency to tell stories involving no goal-directed activity (FOSE).

On FOSF, No Mention of Other Persons, the male subjects' significantly higher ($p < .05$) average score adds a further element to the discussion begun in relation to FOSC, Interpersonal Involvement. No Mention of Other Persons can be viewed as the other side of the Interpersonal Involvement coin. When females tell stories about interpersonal relationships significantly more often than males, it might be expected that males would tell stories involving no other characters than the main one significantly more often than females. Such was the pattern of findings here.

To summarize the findings relating to sex differences in fear-of-success, male and female subjects did not differ significantly on total fear-of-success. Female

subjects wrote significantly more stories about interpersonal involvements (FOSC: Interpersonal Engagement), while male subjects told significantly more stories involving no other persons besides the main character (FOSF: No Mention of Other Persons). Male subjects told more stories involving misfortunes and unhappy outcomes both externally caused and self-caused (FOSA: Non-Contingent Negative Consequences and FOSB: Contingent Negative Consequences) than did female subjects.

Differences on Fear-of-Success by Cue

The only sex difference in amount of fear-of-success imagery on the four cues was found on the "Sitting-with-Smile" cue ("Nancy (Richard) is sitting in a chair with a smile on her (his) face."). Females produced significantly more fear-of-success than males to this cue, primarily because they produced a significantly higher level of FOSC, Interpersonal Involvement, than males ($t(229) = 5.26, p < .001$). The modal story to this cue in the female group told how Nancy had just received a phone call from the boy she had had a crush on for months, how the boy had asked her out, and how Nancy was smiling happily, anticipating the excitement of the coming evening.

An unexpected pattern of differences occurred for both females and males in the amount of fear-of-success elicited by the task cues (Got-What-Wanted, Completed-Project) in comparison to the neutral cues (Sitting-with-Smile,

Late-in-Day). Tresemer (1974) originally developed the task cues used in the present research (a) because they had the property that the nature of the goal that has been attained must be established by the individual (e.g., "After much work, Donna (David) has finally gotten what she (he) wanted.") and (b) because they represented situations involving long-term efforts toward a personally chosen goal, the attainment of which is measured against one's own standard of excellence. These are the hallmarks of achievement, as construed by Atkinson and McClelland (1948). The two "neutral" cues are so called because they are less directed or have less "stimulus pull" for a particular reaction.

In the present study, the neutral cues elicited significantly more fear-of-success than the task cues in both the female and male groups ($p < .001$). Examination of the six fear-of-success scoring categories provides some insight into this difference. Two of the categories, Interpersonal Engagement (FOSE) and No Instrumental Activity (FOSE), might be expected to occur with greater frequency to cues not directly related to achievement. Conversely, the counter-indicative category, No mention of Other Persons might be expected to occur less often in non-task-related cues. Put another way, the less task-oriented (or neutral) cues apparently stimulate more interpersonal concerns and less instrumental activity than do the task

cues. It was these same three categories which accounted for the higher mean fear-of-success of the neutral cues.

Bem Sex-Role Inventory Sex Differences

The obtained sex differences on the Bem Sex-Role Inventory variables were, in all but one case, what would be expected from the design of the instrument. Females rated themselves significantly higher than did males on the Femininity Scale items ($p < .001$), and males rated themselves significantly higher than females on the Masculinity Scale items ($p < .001$). On the androgyny t -score, females were on the average more sex-typed in the feminine direction, males more sex-typed in the masculine direction; and neither group was more androgynous (t -score closer to zero) than the other ($t(229) = 1.029$, N.S.).

The female group's significantly higher mean social desirability rating is difficult to interpret; however, one fact will be mentioned which might have affected not only this result but other results as well. Earlier in the same semester in which subjects were tested, the author gave an invited lecture on "Women as a Minority Group" to two out of the four introductory psychology classes, from which the author's subjects were subsequently drawn. Although it was not so intended, this lecture (which consisted chiefly of drawing parallels between the status of blacks and women) was quickly labelled a "Women's Liberation Lecture" and the author its representative. During the author's later

research-testing sessions, several female subjects and one male subject asked the author whether it was she who had lectured in their classes. Other subjects may well have recognized the author as the "Women's Liberation Lecturer," even if they did not say so. The lecture and the author's presence during testing may therefore have predisposed subjects, both male and female, to respond in a socially desirable manner. Since more females recognized the author (openly at least) and spoke to her, it may well be that females were more influenced, especially since they themselves had been the topic of the lecture.

Differences on Personal Variables

Significant findings involving the personal variables presented no real surprises. Females reported studying more in high school and in college than did males, and also reported more often asking others' advice in matters besides studies. High-GPA subjects of both sexes reported more study time in high school and college, and rated themselves more successful as students than low-GPA subjects.

Several items measuring subjects' impressions about the respect of others and how often others asked their advice in personal or academic matters produced some significant effects for sex and/or GPA level. Virtually all of these items were correlated with social desirability, complicating the interpretation of the correlations, as was the case with the correlations between social desirability

and self-esteem and between social desirability and both masculinity and femininity.

The three items intended to measure subjects', especially academically successful women's, feelings of social acceptance and popularity and feelings of loneliness yielded no significant effects at all for either sex or GPA level. Among the present subjects, high-GPA women and men reported a degree of satisfaction with social and romantic contacts and frequency of lonely feelings, which were not significantly different from those reported by low-GPA women and men. However, the two items measuring loneliness and satisfaction with social life respectively were correlated with social desirability, which may or may not reflect on the validity of the items.

Conclusion

The predicted significant relationships between fear-of-success and either sex-role identification or self-esteem were not found, owing principally to the construction of the fear-of-success scoring system used in this research. The system consists of six empirically derived content categories, several of which do in fact relate significantly to both sex-role identification and self-esteem, and some of which do not.

This set of findings illustrates that, when measured by the present system, fear-of-success cannot be viewed as a unitary concept. The present findings involving signifi-

cant and sometimes opposing relationships among the six fear-of-success categories and the other variables suggest that fear-of-success is composed of several related dispositions. These dispositions could be explored in future research by factor analyzing fear-of-success category scores.

The findings also suggest that the present scoring system may be most useful when fear-of-success total scores are of interest, for example, in an experimental design comparing high and low groups in fear-of-success on some task. In correlational research which seeks to find relationships between fear-of-success and other personality variables, the use of this system may not be advisable, since relationships between the separate fear-of-success categories and other variables are difficult to interpret in practical terms.

SUMMARY

Purpose

The purpose of the study was to examine the relationship of sex-role identification and self-esteem to fear-of-success. It was predicted that in both males and females fear-of-success would be (a) significantly and positively related to femininity, (b) significantly and negatively related to masculinity, (c) significantly and positively related to grade-point-average (GPA).

Procedure

Subjects were 124 female and 107 male introductory psychology undergraduates at a private midwestern university. The subjects were each given the Bem Sex-Role Inventory (BSRI) (Bem, 1974), the Tennessee Self Concept Scale (TSCS) (Fitts, 1965), a personal data questionnaire including items covering academic and social life, and a measure of fear-of-success using four ambiguous verbal cues, to which each subject wrote stories. A cumulative grade-point-average was also obtained for each subject with the subject's permission.

The fear-of-success measure was based on suggestions by Tresemer (1974) and was scored according to an empirically derived system developed by Horner, Tresemer, Berens, and Watson (1973). In response to theoretical and methodological problems in Horner's (1968) original system, Horner

and her colleagues worked out a more comprehensive scoring system, applicable to ambiguous cues of all types. The scoring system consists of six categories which are scored present or absent and then summed across stories. The categories are: (a) Non-Contingent Negative Consequences, (b) Contingent Negative Consequences, (c) Interpersonal Engagement, (d) Relief, (e) Absence of Instrumental Activity, and (f) Absence of Mention of Other Persons.

Results

Self-esteem and sex-role identification (both masculinity and femininity) were not significantly related to fear-of-success total scores, but were significantly related to several of the fear-of-success subcategories, in most cases in the predicted direction.

Significant findings for females. (a) Femininity was positively related to Interpersonal Engagement, (b) Femininity and Masculinity were both negatively related to Contingent Negative Consequences, (c) Self-Esteem was negatively related to both Non-Contingent and Contingent Negative Consequences, and Relief.

Significant findings for males. (a) Femininity was positively related to Interpersonal Engagement, (b) Masculinity was negatively related to both Non-Contingent and Contingent Negative Consequences, Relief, and Absence of Instrumental Activity.

Significant findings for males and females. (a)

Fear-of-success was negatively related to GPA, (b) Females produced more Interpersonal Engagement imagery than males, (c) Males more often than females told stories with No Mention of Other Persons, (d) Males' stories contained more Non-Contingent Negative Consequences and more Contingent Negative Consequences than did females', (e) Males described themselves as more masculine than did females on the BSRI, (f) Females described themselves as more feminine than did males on the BSRI, (g) Neither sex was more "androgynous" than the other on the BSRI.

Conclusions

Sex-role identification and self-esteem were not found to be significantly related to fear-of-success total scores, owing principally to the construction of the fear-of-success scoring system used in the research. The system consists of six empirically derived content categories, several of which did relate to both sex-role identification and self-esteem, and some of which did not. The findings indicate that fear-of-success, when measured by this system, cannot be viewed as a unitary concept, but rather a set of several related dispositions, which could be explored by factor analysis in future research.

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APPENDIX A

PERSONAL ACTIVITIES

1. Age _____
2. Class: Freshman _____ Sophomore _____ Junior _____ Senior _____ Special _____
3. High School grade point average (if known) _____ (Sure? _____ Guess? _____)
If known, was it on a 5-point, or a 4-point scale?
5 _____ 4 _____
4. During your last two years of high school, were you ever any of the following:
in an Honors program..... _____
on the Honor Roll or Dean's list..... _____
in a special or accelerated class..... _____
in any other special academic group..... _____ (Specify: _____)
5. In your last two years of high school, during your free time, did you: (check the ones that apply)
-participate often in sports, in or outside of school Yes _____ No _____
-belong to a club which met regularly..... Yes _____ No _____
-go periodically to group parties or gettogethers.... Yes _____ No _____
-go out on dates (check one)
rarely (once a month or less)..... _____
occasionally (2 or 3 times a month)..... _____
frequently (once or twice a week)..... _____
almost daily (4 times a week or oftener).... _____
-work or play at a hobby (other than sports) Yes _____ No _____
If Yes, which hobby: _____
-get together with one or two close friends (check one)
rarely (once a month or less)..... _____
occasionally (2 or 3 times a month)..... _____
frequently (once or twice a week)..... _____
almost daily (4 times a week or oftener).... _____
-spend time (apart from studies) alone amusing yourself:(check one)
rarely (once a month or less)..... _____
occasionally (2 Or 3 times a month)..... _____
frequently (once or twice a week)..... _____
almost daily (4 times a week or oftener).... _____
6. During the last two years of high school about how much time did you spend studying: (check one)
less than an hour per day..... _____
1-2 hours per day..... _____
2-3 hours per day..... _____
3-4 hours per day..... _____
more than 4 hours per day..... _____
7. So far in college how much time do you spend studying: (check one)
less than an hour per day..... _____
1-2 hours per day..... _____
2-3 hours per day..... _____
3-4 hours per day..... _____
more than 4 hours per day..... _____

8. How would you rate yourself as a student? (check one)

extremely successful.....
 very successful.....
 moderately successful.....
 not very successful.....
 not at all successful.....

How does your academic performance (grades, etc.) affect your interactions with others in each of the following areas? (circle 1,2,3,4, or 5)

9. Others seem much friendlier because of my performance. Others seem somewhat friendlier. My academic performance doesn't affect others' friendliness toward me. Others seem somewhat less friendly. Others seem much less friendly because of my performance.

1 2 3 4 5

10. My grades help a great deal in getting dates. My grades help me somewhat in getting dates. My grades don't have anything to do with my getting dates. My grades are somewhat of a hindrance in getting dates. My grades are a big hindrance in getting dates.

1 2 3 4 5

11. People of same sex seem to respect me much less because of my grades. People of same sex seem to respect me a little less. I feel my grades don't affect the respect of others of same sex toward me. People of same sex seem to respect me a little more. People of same sex seem to respect me much more because of my grades.

1 2 3 4 5

12. I believe others take what I have to say much more seriously. Others take what I have to say somewhat more seriously. My grades don't have anything to do with whether others take me seriously. Others take what I have to say a little less seriously. I believe others take what I have to say much less seriously.

1 2 3 4 5

13. Others very often seek my help with their studies. Others often seek my help with their studies. Other people occasionally seek my help with their studies. Other people infrequently seek my help with their studies. Others almost never seek my help with their studies.

1 2 3 4 5

14. People of opposite sex seem to respect me much less. People of opposite sex seem to respect me less. My grades don't affect the respect of people of opposite sex toward me. People of opposite sex seem to respect me more. People of opposite sex seem to respect me much more.

1 2 3 4 5

Please estimate how often you do each of the following: (circle 1,2,3,4,or 5)

15.

I quite often ask others' advice in matters be- sides studies	I frequently ask others' advice in matters besides studies	I occasionally ask others' advice in matters besides studies	I infrequently ask others' advice in matters besides studies	I almost never ask others' advice in matters besides studies
1	2	3	4	5

16.

I almost never seek help from others with my studies	I infrequently seek help from others with my studies.	I occasionally seek help from others with my studies	I frequently seek help from others with my studies	I very often seek help from others with my studies
1	2	3	4	5

17.

I very often feel lonely and apart from people	I frequently feel lonely and apart from people	Occasionally I feel lonely and apart from people	I infrequently feel lonely and apart from people	I almost never feel lonely and apart from people
1	2	3	4	5

18.

I am very unhappy with the number of social contacts I have with others	I am somewhat unhappy with the number of social contacts I have with others	I am satisfied with the number of social contacts I have with others	I am rather happy with the number of social contacts I have with others	I'm very happy with the number of social contacts I have with others
1	2	3	4	5

19.

I am very pleased with the number of romantic involvements I've been having	I am rather pleased with the number of romantic involvements I've been having	I am satisfied with the number of romantic involvements I've been having	I am rather unhappy with the number of romantic involvements I've been having	I am very unhappy with the number of romantic involvements I have been having
1	2	3	4	5

APPROVAL SHEET

The dissertation submitted by Anne Bradford Stericker has been read and approved by the following committee:

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

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

12-10-75
Date


Director's Signature