FEAR OF SUCCESS, SEX ROLE ATTITUDES, AND CAREER SALIENCE
AND ANXIETY LEVELS OF COLLEGE WOMEN

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A handwritten signature in dark ink, appearing to read "Ann M. Ryan", is written over a horizontal line.

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Chapter 1

Introduction

One of the major changes in American society over the past fifty years has been the increasing participation of women in the labor force. In 1920 women accounted for 28% of the labor force, while in 1973 women comprised 38% of the labor force. The most dramatic changes seem to have occurred since 1940. Sixty percent of the increase in the labor force since that time has been attributed to the fact that women are entering the labor force (Schiffler, 1975). The greatest increase in participation in the labor force by women has occurred in the 35-64 year age group. Schiffler has attributed this increase mainly to the changing work pattern of married women. In 1973 58.5% of women in the labor force were married with a husband present, whereas in 1940 this figure was only 30%.

The demographic data gives support to the notions that the role of paid employment in women's lives has been changing in recent years.

Historically the psychology of career development has not paid much attention to the career development of women. Vocational psychology has, in the past, been a vocational psychology of men. Osipow (1973) supports the belief that an understanding of the career process of women will require distinctive theories from those of men "at least until

such time as true sexual equality of career opportunity exists and the results have permeated society at all levels". (p.258).

In recent years there has been an increasing amount of research addressing itself to a consideration of the question of the career development of women.

Initially, much of the research has taken the form of differentiating between the past histories and personality characteristics of the career woman versus the homemaker, or the traditional job holders versus the pioneer women, also referred to as non-traditionals, role innovators, etc...(Almquist, 1974; Oliver, 1974; Standley Tangri, 1972).

Attempting to differentiate between the homemaker and the career woman becomes a less salient issue as more and more women are participants in the labor force, and fewer and fewer can be considered strictly homemakers (Levitt, 1971). It must be realized, however, that "labor force participant" is an umbrella term that covers a large area. According to Oppenheimer (1970) labor force participation "refers to the number in the labor force, regardless of the degree of involvement- full-time or part-time".

Career **salience** is a construct which has been developed to describe the centrality of a career in a person's life, male or female. According to Masih (1967) the term was initially used by Kuhlén and Dipboye (1959) at the

Syracuse University Institute of Research. These authors provided evidence that people differ on this dimension.

Masih (1967) found that the highest number of women in his sample fell in the low saliency category. This finding is not surprising in light of the often intermittent pattern of work in women's lives.

Recent vocational research on women has attempted to get at factors that determine the saliency of careers for women, often using slightly different terminology, e.g., work commitment (Almquist & Angrist, 1970; Safilios-Rothschild, 1971). This research, however, has not yielded consistent results.

An application of the research findings from other areas of psychology could be useful in understanding career salience in women. One particular area of research which could have a relationship to the degree of career salience exhibited by women in the subarea of motivation theory developed by Horner (1970, 1972). Horner, in her doctoral dissertation, examined sex differences in achievement behavior of men and women. She postulated that there exists in most women a motive to avoid success, also referred to fear of success. By this she meant that most women have a "dispostion 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" (Horner, 1972, p. 159). Horner

further theorized that the motive to avoid success is "a latent ,stable personality disposition" as are all motives (Horner, 1970, p. 47). Different situations will arouse the motive in varying degree. Competition against a desirable male, according to Horner, is the situation that will arouse the motive the most.

The realm of career development for women seems a likely arena for a motive to avoid success to have its effects. Most of the research on the effects of fear of success have related to in vitro experiments rather than real life phenomena. There are a few studies, however, which do lend empirical support to the notion that the presence or absence of fear of success in women will have an impact on their achievement strivings, and in particular their career salience (Fleming, 1977; Hoffman ,1977; Spence,1974; Tomlinson-Keasy, 1974).

It has been suggested that the impact of fear of success on women may vary as a function of their attitudes about the proper roles of women. The question of the relationship between sex-role attitudes and fear of success has not yet been definitively answered. Some researchers have found no relationship between the two, while others have found relationships. Caballero (1975) found that the no fear of success group was more traditional, while Tresemer (1976) concluded that there was no relationship.

Whether a woman is traditional or nontraditional in her outlooks in combination with the presence or absence

of fear of success could possibly yield four patterns of achievement behavior (Alper, 1974). Empirical support for this speculation has been found in a laboratory experiment (Peplau, 1976b). Peplau (1976a) advised that "in a time of changing attitudes about sex roles, researchers interested in fear of success may do well to assess sex-role attitudes as well as motives" (p.257).

Fleming (1977) supported the idea of examining both traditionalism and fear of success. She pointed out that there may be a difference between "conflict arousal (observed among achievement-oriented women) and functional debilitation (among traditionalists)" (p. 713). In terms of actual achievement behavior this implies that perhaps for those women who are achievement oriented in spite of the presence of fear of success, there may be a heightened state of tension but no decrement in their achievement behavior. For the traditional women, however, it seems possible that the fear of success might cause them to actually decrease their achievement behavior.

Shaver (1976) has pointed to the possibility that for those women who are high in fear of success and yet continue to be successful there may be a "high price in strained interpersonal relations or psychosomatic ailments such as headaches, ulcers, colitis, and insomnia" (p.317). That is, for high fear of success women who continue to strive, there may be a cost despite the fact that a real world phenomena like career salience will not show the

debilitating effect of the fear.

In this study career salience, fear of success, sex-role attitudes, and anxiety are measured. The purpose of the study is to determine whether the level of career salience in women relates to the level of fear of success and/ or traditionalism or nontraditionalism of sex-role attitudes. A second purpose of this study is to determine whether the levels of state or trait anxiety in women relate to the level of career salience and fear of success. The purpose of the present study is to determine whether those women who are high in fear of success yet are high in career salience, are paying a high price in terms of anxiety.

Chapter 2

Review of the Literature

The review of the literature is divided into four sections. Each section of the review deals with a specific vein of research. The first section is a review of the career salience/career commitment literature, with the major focus on research dealing with women. The second section is a selected review of the literature on the motive to avoid success/ fear of success research. The third section is a selected review of the literature on sex-role attitudes of women, especially research relating sex-role attitudes to achievement behavior and fear of success. The last section is a selected review of the literature on anxiety and its relation to fear of success.

Career Salience

In reviewing the literature on career salience, two research issues needed to be dealt with. The first section of this review summarizes the research in terms of factors related to career salience. The last part of this review discusses the variety of ways in which career salience has been measured.

Career salience as a unique concept has appeared in the literature in a number of ways and under various names, e.g., career commitment. The initial use of the term career salience according to Masih (1967) came out of the Syracuse

University Institute of Research in 1959. At that time evidence was provided that career salience was a dimension upon which people differed.

Masih (1967) provided one of the first definitions of career salience. He defined career salience as a.) the degree to which a person is career motivated, b.) the degree to which an occupation is important as a source of satisfaction, and c.) the degree of priority ascribed to occupation among other sources of satisfaction.

In doing his research on both male and female samples, Masih found significant sex differences in the degree of career saliency ($p < .001$). The highest number of women fell into the low saliency category. The low salience group among women evidenced a considerably greater lack of career motivation than the male low salience group.

Masih's interest in career salience was in terms of its relationship to needs, interests, and job values. The research was not directed toward the understanding of women's career development in particular, though women were included in the sample.

Greenhaus (1971) continued to do research on career salience without a direct emphasis on the career patterns of women. Greenhaus investigated the relationship between career salience and congruence of occupational choice (according to Holland's scheme). He found that there was a significant relationship ($r = .27$, $p < .01$) between career salience and congruence of occupational choice for

males, but not for females. This relationship for males actually indicates that less than 9 % of the variance is being accounted for.

Other researchers have focused the emphasis of their career salience research more directly onto female populations (Almquist & Angrist, 1970; Haller & Rosenmayr, 1971; Safilios-Rothschild, 1971). The research has not consistently employed the term career salience. Some authors have dealt with career commitment, others with career orientation. The idea behind all of these, however, appears to be the centrality which a career will hold in a woman's life. These authors have attempted to develop conceptual frameworks of career commitment which relate more directly to the issues and concerns that women in this society must deal with.

The researchers who have dealt with career commitment in women have based their research on a number of different hypotheses. Almquist and Angrist (1970) elaborated two hypotheses to explain career salience in women. The first of these hypotheses was the "deviance hypothesis". The basic notion behind the deviance hypothesis was that a girl who was strongly career motivated and who chose a masculine occupation was the product of different social learning experiences than other young women her age. She developed a "masculine" self-image.

The second hypothesis which Almquist and Angrist based

their research upon, was the "enrichment hypothesis". The enrichment hypothesis proposed that the atypical female was a product of certain additional and enriching life experiences. These experiences led the woman to have less stereotyped and broader conceptions of what could be considered as appropriate to the female role.

Almquist and Angrist found that few factors related to the deviance hypothesis were significant predictors of career salience. Only marital status of seniors (going steady, engaged or married) and sorority membership significantly differentiated the career salient and nonsalient women ($p \leq .05$, and $p \leq .01$, respectively).

The enrichment hypothesis received somewhat more support. Maternal employment, amount and variety of work experience and type of role models all related to career salience significantly ($p \leq .001$).

Findings from other research have been varied, largely as a result of variations in the questions asked. Some researchers have looked at biographical data. Work commitment in women has been positively related to educational level, age of marriage, number of children and age of childbearing (Harmon, 1970).

Researchers have also examined career salience in regard to work values. High career salience has been related to a high valuation of the use of special abilities, and of freedom from close supervision (Almquist & Angrist, 1970). It has also been related to more nonfinancial reasons for

working (Haller & Rosenmayr, 1971).

Richardson (1974) developed a framework in which she differentiated between what she termed career-oriented and work-oriented women. Richardson's career-oriented women seem similar to those women who are high in career salience. Career-oriented women were found to be highly career motivated and perceived the career role as primary in their adult lives. Career-oriented women had higher aspiration levels and less traditional occupations. In relation to these findings Almquist and Angrist (1970) found that career salient women tended to have more nontraditional occupations than nonsalient women. The work-oriented women in Richardson's study did have well defined occupational aspirations. The major difference was that the work-oriented placed a higher value on both the career role and marriage and family responsibilities in their futures.

In summary it can be seen that the research on career salience in women has not produced a clear picture of the development of career salience. A number of factors have been isolated but no conceptual framework adequately explains career salience.

The ways in which the level of career salience was assessed in these studies were almost as numerous as the number of studies themselves. Safilios-Rothschild (1971) pointed to the trend of looking at women's work commitment in terms of their interest in work at different stages of the family cycle, or under different financial conditions.

The importance of situational factors in the degree of work commitment seemed to be an underlying foundation in many researcher's measurement of work commitment (Eyde, 1962; Haller & Rosenmayr, 1971; Miyahara, 1976).

Miyahira in a revision of Eyde's Desire to Work Scale, looked at work commitment in terms of marital status, and ages and number of children, husband's income and his attitude towards a working wife. Subjects were provided with a number of conditions and asked what the likelihood of their working under these conditions would be. Though complicated, this scale does seem to be a more complete measure than most others. Eyde's original scale had not included husband's attitude toward a working wife as one of the factors.

A potentially serious flaw of the Eyde-Miyahira Desire to Work Scale has been pointed out by Orcutt (1977). She noted that this scale might not be a good measure of career commitment in women since in reality women have the power to choose what their life situation will be. On the scale they are given a set of conditions with no option for choice of their desired situation. They may remain single, decide not to have children, or decide on the particular number of children that they want. The Desire to Work Scale does not take this choice factor into account.

Many researchers have not been as refined in their analysis of career salience. Harmon (1970), for example, classified women as career committed when they listed a "usual occupation". Her sample consisted of women who had

been out of college for ten years. Some researchers have used short questionnaires which have not been as systematic as the Desire to Work Scale (Almquist & Angrist, 1970; Oliver, 1974), while other researchers have used as many as 14 questionnaires (Richardson, 1974).

Safilios-Rothschild (1971) suggested that the best conceptualization of work commitment applicable to both men and women would be one which was based upon the relative distribution of energy, emotional investment, time and interest in work as opposed to other life domains, most notably family life.

Greenhaus (1971) developed a measure of career salience for use in his research. This scale consisted of 28 Likert format items. It appeared to be the best available measure of career salience on the basis of the criteria set forth by Safilios-Rothschild. The scale was applicable to both men and women. It tapped into the priority of work over other life domains.

Summary and Conclusions

The research cited was aimed at determining the factors associated with high career salience, particularly in women. A number of situational factors have been related to high career salience e.g., marital status, age of marriage, educational level, number of children, and age of childbearing.

These situational factors did not adequately explain career salience. An implicit assumption in much of the

research was that these factors were determining the level of career salience. It seems plausible, however, that high levels of career salience could cause a woman to attain higher levels of education and postpone marriage. The other situational factors could also be understood in this way. Instead of explaining career salience, researchers have possibly discovered the outcomes of high levels of career salience.

Vocational psychology has generally recognized the importance of personality in career development, yet this career salience research has ignored personality and only investigated situational factors. An understanding of career salience in women would be aided by an understanding of the intrapsychic factors that may influence women's career decisions.

Motive to Avoid Success/ Fear of Success

In a search for intrapsychic factors which could be related to career salience in women, the literature on achievement motivation seems a logical place to begin. Unfortunately much of the past research in this area has not been able to adequately explain the behavior of women.

More recently Horner (1972) has dealt with the issue of achievement related conflicts in women. Horner began this line of research in her doctoral dissertation at the University of Michigan in 1968. Her research was an attempt to explain the major unresolved sex differences in previous

achievement research.

Horner's conceptualization of achievement in women involved what she termed a motive to avoid success. This motive was conceptualized within expectancy value theory of motivation. In expectancy value theory the most important factors in arousing the motive are "a.) the expectation or belief the individual has about the nature or likelihood of the consequences of his/her action and b.) the value of these consequences to the individual in light of his/her particular motives". (Horner, 1972, p.159) In this framework avoidance motives inhibit actions expected to have negative consequences.

The motive to avoid success, in particular, was a tendency predominant in women to become anxious about success, because they fear negative consequences. These negative consequences according to Horner were consequences such as social rejection or feelings of being unfeminine.

The motive to avoid success was believed to be a latent, stable personality disposition. It was believed that the motive to avoid success was formed early in life in conjunction with norms of appropriate sex-role behavior. The motive to avoid success is also referred to as fear of success in the literature. Both terms have been employed by Horner (1972) and subsequent researchers, though fear of success has been the more common of the two in recent literature.

Horner originally administered a verbal TAT cue to a

sample of students at the University of Michigan. For female subjects she used the lead "After first term finals Anne finds herself at the top of her medical school class".- For male subjects the name John was substituted for Anne. The subjects were instructed to write a story about Anne or John. The stories were then scored by a present-absent system , as to whether they contained evidence of a motive to avoid success. Stories which involved any of the following themes were considered to be evidence of fear of success; negative consequences as a result of success, denial of effort or responsibility for attaining the success, denial of the cue itself, or some other bizarre or inappropriate response.

Horner (1972) found significant sex differences in the prevalence of the motive to avoid success. In her 1968 sample, she reported that 65.5 % of her female subjects exhibited this fear, while only 9.1 % of the males did ($p < .0005$).

Horner (1972) also found that the presence of the motive to avoid success led to a performance decrement when these women were placed in mixed sex competitive situations. Thirteen of the 17 women high in fear of success exhibited a performance decrement while working on achievement tasks in a mixed sex competitive situation, as opposed to their performance in a noncompetitive situation. Only 1 of the 13 women low in fear of success exhibited such a performance decrement. (The chi square difference between the groups was

11.37, $p < .01$.)

Subsequent research has raised a number of questions regarding Horner's findings. A number of studies have found similar rates of fear of success in men and women (Feather & Raphelson, 1974; Hoffman, 1974; Robbins & Robbins, 1973; Romer, 1975; Solomon, 1973). The rates, though similar to one another within studies, have varied greatly from study to study. For males, percentages have ranged from a low of 28 % (Feather & Raphelson, 1974) to a high of 77 % (Hoffman, 1974). For females the range has been from a low of 27 % (Feather & Raphelson, 1974) to a high of 89 % (Alper, 1974).

Hoffman (1974) noted that though the rates of fear of success appeared to be similar for men and women, there were differences in the themes of the stories. Women's stories contained themes which dealt with negative consequences for successful women. Men's stories, on the other hand, seemed to question the value of success itself. The trend noted by Hoffmann seems reflective of political and social values of youth in the early 1970's. Similar findings were obtained more recently (Cherry and Deaux, 1978).

Romer (1975) noted that though the rates of fear of success were similar in her male and female samples, the behavioral correlates did not appear to be similar. In her study of school age males and females, Romer found that older females (9th and 11th grade) with motive to avoid success, more often performed best in the noncompetitive-alone condition than in the explicitly competitive condition.

These findings were not true for either low fear of success females or high fear of success males. High fear of success males, unlike their female counterparts, performed better in competition with a same-sex individual than in a noncompetitive alone condition ($\chi^2(2) = 7.19, p < .05$).

Many of the studies which have attempted to replicate Horner's study have included opposite sex as well as same sex cues. Males responded to Anne in medical school as well as John, and females responded to John as well as Anne. In four studies it was found that males responded negatively to the Anne cue at a higher rate than did females (Feather & Raphelson, 1974; Monahan, Kuhn & Shaver, 1974; Robbins & Robbins, 1973; Solomon, 1973). For males responding to the Anne cue, fear of success imagery has been consistently high, ranging from 41 % (Feather & Raphelson, 1974) to 64 % (Solomon, 1975). For females responding to the John cue the rate of fear of success imagery was somewhat lower, ranging from 20 % (Feather & Raphelson, 1974) to 50% (Alper, 1974) .

Monahan ,Kuhn and Shaver (1974) on the basis of similar findings concluded that fear of success imagery was more a function of the sex of the cue than the sex of the subject. In fact, their results indicated that though the rates for both males and females responding to the Anne cue were high, there was a moderate interaction effect in the direction of males showing a higher proportion of negative responses to the Anne cue than females (68 %

versus 51 %, respectively). These authors argued that if the major factor which predicted fear of success imagery was a task factor (sex of cue) rather than a subject factor. (sex of subject) then intrapsychic explanations of fear of success were not adequate. Instead they argued for a cultural explanation i.e., in society it was not acceptable for females to achieve, and both men and women agreed. Though these findings were of interest ,it should be noted that not all conclusions were based on conventional significance levels.

Alper (1974) and Hoffman (1974) questioned the effect that the sex-appropriateness of the task might have on fear of success imagery. These authors each varied the task which Anne was involved in. They hypothesized that perhaps the motive to avoid success was not as generalized as Horner believed, but rather related only to tasks that were perceived to be sex inappropriate.

Alper employed three types of cues; Anne in medical school, Anne in nursing school and Anne at the top of her class (type of class unspecified). Alper found that in a sample of liberal arts women the rate of fear of success was the same for the nursing and medical school cues. For a sample of nursing school students, however, the rates for the two cues were quite different. Anne in medical school evoked only 20 % success stories, while the nursing school cue evoked 86 % success stories ($\chi^2 = 7.23$, $p < .01$).

Hoffman (1974) employed four different types of cues. Aside from Horner's original cue, she made use of a cue in which Anne's chosen field was either masculine or feminine i.e., child psychology. The third cue maintained the original field of medicine, but made it clear that Anne learned of the success in private, i.e., through the mail. The fourth cue minimized the competitive aspect by changing "at the top of her class" to "having an average over 95". Hoffman found no significant differences between cues. One important aspect of this study, however, was that none of the cues used by Hoffman were traditionally feminine.

Hoffman's sample consisted of undergraduates enrolled in an introductory psychology class. This sample would seem comparable to Alper's liberal arts sample. One must wonder what the difference in results might have been if different samples had been used.

More recently Cherry and Deaux (1978) investigated this same question in a slightly different manner. These authors tested the hypothesis that both males and females would show evidence of fear of success when success was achieved in a nontraditional field. Both the medical school and nursing school cues were utilized with a male and a female depicted in each situation. The females responded with significantly less fear of success imagery to the Anne/nursing school cue than to the Anne/medical school cue (14 % versus 50 % respectively). These findings were also supported by other recent research (Janda, O'Grady &

Capps, 1978).

Cherry and Deaux also found that for both males and females, the cue involving John in nursing school evoked more fear of success imagery than the cue involving Anne in nursing school ($\chi^2(1) = 4.6, p < .03$). Events surrounding John's success in nursing school included teasing, rejection by peers, having his masculinity questioned and negative effects on his social life. The authors concluded that the tendency for both men and women "to express avoidance of nontraditional activities suggests that the construct 'fear of success' is not a predominantly feminine concern" (Cherry & Deaux, 1978, p.100).

In summary, Hoffman (1974) found that varying the cue had no impact, whereas Alper (1974), Cherry and Deaux (1978), and Janda, O'Grady and Capps (1978) found evidence that sex appropriateness of the cue did affect the percentages of fear of success imagery. A major reason why Hoffman's findings differed from the others could have been the lack of any truly feminine cues in her study. These findings must raise some serious questions about the validity of the traditional measurement and conceptualization of fear of success, when only a medical school cue was used. It seems that the TAT cues are situation specific measures of fear of success. The cue generally employed involved a stimulus which is considered by many to be sex inappropriate for women.

Based on the research evidence cited, it seems quite plausible that one of the major contributors to fear of

success may be a fear of gender inappropriate behavior, especially for women.¹

A few major problems seem inherent in the traditional measurement of fear of success. An assumption implicit in much of the research cited seemed to be that an experimenter could determine whether a cue was gender appropriate or gender inappropriate. In a time of changing attitudes about the proper roles of women this seems to be a risky assumption.

Perceptions of sex appropriate behavior could vary greatly from subject to subject. This variability in perception would serve to confound the measure of fear of success. If a woman responded positively to a cue which involved Anne in medical school two conclusions seem equally plausible. The first conclusion, the one believed by the researchers in the area, was that the subject did not fear success. Equally plausible, however, is the possibility that this woman had a broad enough conception of the role of women to encompass female medical student as gender-appropriate.

While Deaux and Cherry argued for more specific measures of fear of success, to deal with the specific nature of the fear, an alternative approach could be supported. A more fruitful approach in fear of success research could be

¹Research evidence for men has indicated that fear of success imagery often centered around a questioning of the value of success itself.

to measure a subject's general level of fear of success initially. A separate measure of their attitudes related to gender appropriate behavior could then be administered. These two measures in combination could yield more predictive information in terms of possible behavioral correlates.

The behavioral consequences of fear of success were initially investigated by Horner. A summary of these studies is provided in Horner (1972). She hypothesized that fear of success would only affect a subjects performance in those situations in which it was aroused. The assumption, which she worked under, was that fear of success would be aroused in situations in which there was concern over or anxiety about competition and its aggressive implications. The assumption received support in her first study. Thirteen of the 17 women who were rated as high in fear of success performed at significantly lower levels in the mixed sex competitive situation, on a series of achievement tasks, than they did later in a noncompetitive condition. For those women rated low in fear of success, the majority (12 of the 13) performed better under the competitive condition. (The chi square difference between groups was 11.37, $p < .01$.) Romer (1975) confirmed these findings..

Subsequent research into the behavioral implications of fear of success has generally been done in laboratory settings. These studies varied factors such as sex appropriateness of the task, by informing a particular subject that the anagrams task or the digit symbols task that they

were about to perform, were generally performed more successfully by members of the same or opposite sex (Makosky, 1976; Sorrentino & Short, 1976). The results of these studies contradicted one another. Sorrentino and Short found those subjects high in fear of success performed better under all conditions. Makosky, on the other hand, found that those women high in fear of success performed best in tasks that were described as feminine, whereas low fear of success women performed best on the masculine tasks.

Makosky also varied the sex of the competitor and found that women high in fear of success performed best when in competition with a woman. Low fear of success women performed best when in competition with a male.

A few of the laboratory research studies have also included measures of sex role attitudes. These studies are reviewed in the next section dealing specifically with sex role attitude research.

Only a few studies have attempted to relate fear of success to behavior outside of the laboratory setting. For the purposes of this research, only those articles relating fear of success with career development in general and career salience in particular, have been reviewed.

The first mention of the possible impact of fear of success on career salience was in Horner's (1972) summary of fear of success research. She cited a small pilot study by Schwenn (1970) which had not been published

elsewhere. Schwenn found that in a sample of 16 women 12 were found to be high in fear of success. After 3 years of college, it was found that 11 of the 12 high fear of success women had altered their career plans to ones which they considered more traditional, appropriately feminine and less ambitious. Only one of the 4 women low in fear of success had done so. (A Fisher test showed the difference to be significant at better than the .05 level.)

The subjective nature of each woman's evaluation of what field was more traditional was found to be very important. For one woman attending law school was felt to be more traditional than medical school. The importance of subjective evaluations supports the earlier suggestion that it was difficult to determine whether or not a cue would be considered gender appropriate.

More recent research evidence has been provided that fear of success may be related to career development in general, and career salience in particular. Spence (1974) examined new methods of measuring fear of success. She presented an analysis of the most common themes present in the fear of success stories written in her sample of subjects. The most common response to both the single woman TAT cue and a married woman TAT cue of a successful woman involved voluntary career limitation, on the part of the successful woman.

Fleming (1977) cited a study by Patty and Shelly in which it was found that those women who were high in fear of

success appeared to be more career oriented. At the same time they reflected an achievement ambivalence in that they lacked career dedication. Both lack of career dedication in Patty and Shelly's study, and voluntary career limitation in the previous study (Spence, 1974) appeared to be similar to the definition of low career salience provided in the first section of this literature review.

Hoffman (1977) in a followup of Horner's original 1965 sample has provided some very interesting findings. For the purposes of the present research only the findings related to career, education, marriage and fertility will be discussed. One hundred fifty eight of the 177 college students in Horner's original 1965 sample were interviewed by mail.

Hoffman was interested in the possible effects that high levels of fear of success might have had on subsequent behavior. It was felt that a simple comparison of post-graduate achievement was not a valid test, since there has been some evidence that fear of success characterized the more able women (Hoffman, 1974). One possibility therefore, was that those women high in fear of success might have accomplished more than low fear of success women, but still have accomplished beneath their full potential. No significant differences were found between those high in fear of success and those low in fear of success in 1965, in terms of educational accomplishments or their current occupations.

Hoffman. (1977) found significant differences between high versus low fear of success women in marital and fertility behavior. Women who exhibited fear of success in 1965 were more likely to have married ($p < .10$) and were more likely to be mothers ($p < .01$). Among the married women, the fear of success women were more likely to be married to older men ($p < .01$).

Hoffman was more specifically interested in the hypothesis that "pregnancy can be a defense mechanism that serves to reduce the anxiety felt by women who fear success when they are on the verge of success". (p.318) Pregnancy would serve to remove the wife from the achievement/ career area, confirm her femininity and reestablish affiliative ties. Hoffmann hypothesized that such pregnancies would be a more common occurrence among high fear of success women.

In order to test the hypothesis that high fear of success women used pregnancy as a defense mechanism, all female subjects were asked if they had ever been pregnant, and whether a birth had resulted. Those women who had been pregnant were then asked whether or not the pregnancy had been planned. In those cases where the pregnancy was unplanned the women were asked a number of questions about their lives and their husband's lives just preceding the pregnancy. For those women who had planned their pregnancy, the questions were asked regarding the time just prior to the decision to have a child.

Responses to these questions were coded as "success-anticipation" pregnancies if any of a number of conditions existed that might increase the respondent's success relative to the man's success or that might decrease the distance in success between them, even if she would remain lower. Of the 48 women who had been pregnant, 14 of the pregnancies were rated as success-anticipation pregnancies. Thirteen of the 14 women had written fear of success stories in 1965. For those women who had become pregnant, high fear of success women (as measured in their undergraduate days) were significantly more likely to become pregnant at a time when they were faced with success relative to their partner ($p < .05$, Fishers exact test, one-tailed).

Hoffman's findings added supporting evidence to the findings of previous researchers, that fear of success has real life behavioral correlates, especially in the achievement/career realm. Becoming pregnant at a time of potential advancement could be construed as evidence of lower career salience among high fear of success women.

Tomlinson-Keasy (1974) reported that her sample of older married women had lower fear of success rates than the younger sample of coeds. She concluded that the incidence of fear of success decreases with age. When the findings of Hoffmann's research were applied, it became just as plausible that her sample of older women (returning students) consisted of just those women who had low enough levels of fear of success to allow them to return. The women who were high in

fear of success had probably remained at home.

Summary and Conclusions

Research evidence has been presented which indicates that fear of success might affect a women's career development, especially in the area of career salience. Findings such as those of Hoffman (1977) lend strong support. At the same time several problems inherent in the traditional measurement of fear of success have been discussed. An alternative approach, involving an assessment of a subject's general level of fear of success in combination with an assessment of the subjects attitudes toward the proper roles of men and women, has been suggested. The combination of the two measures was felt to be more enlightening than the current procedure.

In the next section of the literature review , a number of studies are reviewed which have dealt with sex role attitudes and their impact on achievement behavior. A few of these studies have explored the relationship between sex role attitudes and fear of success, and their combined impact on achievement behavior.

Sex Role Attitudes

In a search for intrapsychic variables to explain career salience in women, the achievement motivation literature was explored with particular emphasis on the motive to avoid success/ fear of success. One possibility which has been raised by a number of researchers is that sex role attitudes may have an effect on the impact of fear of success.

The research on sex role attitudes and their impact on woman's lives has been quite different than the fear of success research in its development. Almost all of the research on fear of success had its roots in Horner's research. Sex role attitude research, on the otherhand, resembles more closely the career salience research in that various names have been used to get at what appear to be similar constructs. Various instruments have been used in the sex role attitude research , making comparison from study to study somewhat difficult.

In general , sex role attitude research had at its foundation the notion that women could be divided into those who were traditional versus those who were nontraditional in their conceptions of the appropriate roles for women. The particular definitions of traditional and nontraditional have varied from study to study. Defining characteristics are given for each individual study. In general "traditional" women have been those women who subscribe to the belief that men and women should have different roles and endorsed notions of traditional femininity. Nontraditionals tended to reject the traditional conceptions of the female role.

A few researchers have explored the impact of sex role attitudes on women's achievement motivation. Alper (1973) investigated this relationship in college women. Alper differentiated between those women who accepted traditional sex role imperatives and those who rejected them. The sex role imperatives which she focused on were "women's place is in the home, man's place in the professions,

business, industry or politics" (p.11).

In order to conduct this research Alper developed the Wellesley Role Orientation Scale (WROS). The scale consisted of 24 items which measured three aspects of role preference. The first area measured involved traits college women generally regarded as "feminine" rather than as "masculine". The second area measured was role activities that college women found acceptable for themselves as women. The third and last area was career, or career oriented, activities college women considered appropriate only for men.

Alper then administered the scale along with a measure of achievement motivation. She found that those women who had high scores on the WROS, the traditionals or high feminines, had significantly higher achievement scores when a male picture was used than the women who had low scores on the WROS ($p \leq .025$). Within the high scorers, the male picture tended to be more effective than the female picture ($p \leq .06$). Alper concluded that the sex of the stimulus cue appeared to be a more differentiating determinant of strength of achievement motivation for high WROS scorers than for low. This seemed to indicate that it was easier for those women who accepted the traditional role, to respond to a male cue with achievement imagery than to a female cue. For those women who had not accepted the traditional role, the sex of the cue made little difference.

Lipman-Blumen (1972) also investigated the relationship between sex role ideology and achievement. She was specifically

interested in the relationship between ideology and educational and occupational aspirations. Lipman-Blumen developed an index of female role ideology. Her index encompasses two major dimensions. The first dimension was concerned with issues of task sharing between husband and wife. The second dimension dealt with perceptions of appropriate female behavior outside of the home. She employed a six item scale.

Lipman-Blumen grouped the respondents into two categories; traditional and contemporary. The traditional women were those who believed that under ordinary circumstances women should be in the home taking care of children and carrying out domestic tasks. The contemporary women, on the other hand, believed that the relationship between men and women should be egalitarian.

Lipman-Blumen found a strong interaction between a woman's concept of the female role and her educational aspiration. The majority of women with contemporary views aspired to graduate studies (58 % medium aspiration, 11 % high aspirations), whereas a minority of the traditional women had such aspirations (44 % medium aspirations, 3 % high aspirations). Medium aspiration meant that a woman planned on obtaining a Masters degree, whereas high aspiration meant the woman planned doctoral or postdoctoral studies.

Lipman-Blumen also investigated preferred mode of achievement. She differentiated three modes; direct, balanced and vicarious. She found that those with traditional ideologies

more often adhered to the vicarious mode than those with contemporary ideologies (76 % versus 54 %). Those women who adhered to the vicarious mode fulfilled their achievement-needs either completely or predominantly through the accomplishments of their husbands.

The findings of Lipman-Blumen's study seem to support the notion that sex role attitudes play a large role in predicting a woman's career salience. The findings of Lipman-Blumen and Alper (1973) indicated that traditional sex role ideologies were having a suppressing effect on these women's achievement behavior.

A few studies have been done which have measured both sex role ideology and fear of success as possible mediators in achievement behavior. A question quickly arose, however, which required an answer. That question focused on the possible relationship between fear of success and sex role ideology. A number of investigators have explored the relationship between the two constructs.

One of the earliest investigations into the possible relationship between fear of success and sex role attitudes was conducted by Alper (1974). She measured sex role orientation with the WROS and found that success stories were significantly more often told by low WROS scorers (nontraditionals) , than by high WROS scorers (traditionals).

Heilbrun, Kleemeier and Piccola (1974) found that among female graduates there appeared to be a cluster of characteristics that characterized a certain group of women. These

women along with high incidence of fear of success, also possessed high masculinity and strong contemporary attitudes toward the female role. This finding is in direct contradiction to the findings previously cited (Alper, 1974).

The measure used by Heilbrun, Kleemeier, and Piccola was a scale developed by Fand in 1955, perhaps accounting for some of the differences in results between the two studies.

O'Leary and Hammack (1975) measured both fear of success, across several types of cues, and sex role orientation. Their measure of sex role orientation was the WROS developed by Alper (1973). Results of this study indicated that the arousal of success avoidant imagery was partially a function of role orientation. The nontraditional women generated fewer success avoidant responses across all cues than the moderates or traditionals ($\chi^2(2) = 15.21, p < .001$). The findings of O'Leary and Hammack seem to be consistent with the findings of Alper (1974).

Caballero, Giles and Shaver (1975) found the opposite to be true. In their study the no fear of success women proved to be more traditional in their conception of the appropriate behavior for males and females ($t = 2.94, df = 31, p < .01$). The no fear of success women also held negative attitudes towards the women's movement ($t = 2.03, df = 3, p = .05$).

Zuckerman and Wheeler (1975) in a review article on fear of success research, concluded on the basis of the results of Alper (1974), Heilbrun, Kleemeier, and Piccola (1974) and

a number of other studies, that clearly there is not enough evidence to support the view that fear of success characterizes traditionally role oriented women. This conclusion was also supported by Tresemer (1976).

More recently Peplau (1976a) (1976b) has lent support to Zuckerman and Wheeler's conclusions. She found that women's fear of success was not related to any of 8 measures of their own sex role attitudes. The mean traditionalism score for those women high in fear of success was 25 compared to 24 for women with low fear of success. The two groups did not differ in their support for the women's movement.

Romer (1977) like Peplau (1976a) found that sex role identity was unrelated to the presence of fear of success imagery. Romer measured sex role identity with a modified version of the Broverman Sex Role Questionnaire and carried out her research on fifth through eleventh grade male and females.

In sum it appears that no clear cut relationship has been displayed consistently between sex role attitudes and fear of success.

A number of studies which have explored the relationship between fear of success and sex role attitudes, have also explored their combined impact on achievement behavior.

Alper (1974) found that within the traditional women and the nontraditional women, there were two distinct subgroups. These subgroups centered around the dimension of ambivalence. Within the traditional group of women, two types

of stories were written. The first group of stories dealt with motherhood either being put ahead of a career , or with a casual combination of motherhood and achievement, as in a hobby. These stories indicated an acceptance of the traditional female role. The second subgroup of women, on the other hand, wrote stories which indicated that motherhood and a career cannot be combined . These stories indicated that there was some discomfort with the demands of the traditional role, yet a need to adhere to it.

Within the nontraditionals a similar dichotomy occurred. One group wrote stories in which a successful combination of home and career occurred. The second group wrote stories which involved the danger of this combination. Once again these groups broke down into unambivalent and ambivalent nontraditionals.

Peplau (1976a) suggested one possible interpretation for Alper's findings. She felt that these findings helped to explain why there has been little relationship between fear of success and sex role attitudes. Those women who were high in fear of success could be viewed as conflicted about their femininity, i.e., ambivalent. These ambivalent women could be either traditional or nontraditional in their attitudes. Peplau (1976a) suggested that these four groups of women (unambivalent- traditional, ambivalent- traditional, unambivalent- nontraditional, and ambivalent- nontraditional) would show different patterns of achievement behavior.

Peplau (1976b) compared the impact of sex role attitudes and fear of success on women's achievement. She employed Horner's measure of fear of success and a 10 item sex role traditionalism scale. Subjects performed a scrambled words task under two conditions; competitive and noncompetitive. In general, Peplau found that sex role attitudes were a better predictor of women's achievement than fear of success. Women with traditional attitudes performed significantly better in a team situation with their boyfriends than when working in competition with their boyfriends, nontraditionals showed the opposite pattern. Fear of success did contribute, however, in that under noncompetitive conditions those women who were a combination of traditional attitudes with high levels of fear of success, were the highest scoring group. The interaction was significant ($F(1,87) = 5.6, p < .02$). Under competitive conditions post hoc analysis indicated that high fear of success traditionalists performed significantly worse than low fear of success liberals under individual competitive conditions ($p < .05$).

O'Leary and Hammack (1975) concluded from their research on the relationship between fear of success and sex role attitudes, by pointing out that fear of success may inhibit achievement directed behavior differentially as a function of the woman's definition of sex role appropriate success. This conclusion seems consistent with Peplau's (1976b) findings.

Peplau's results were limited to a laboratory

setting, however, it seems plausible that the same sort of achievement pattern may emerge in the career arena, particularly with respect to career salience. These relationships have not yet been investigated outside of the laboratory setting.

In reviewing the research in the sex role attitude area, it becomes apparent that a number of different measures of sex-role attitudes are in use. Many researchers have devised their own measures of sex role attitudes, but have not included a detailed version of the items on their scales.

The only questionnaire which has appeared in more than one of the previously cited research studies has been the Wellesley Role Orientation Scale (WROS) (Alper, 1973). This scale seemed somewhat less than desirable in that one aspect of role preference that the scale measured was traits that college females regarded as "feminine" rather than "masculine" (Alper, 1973). Implicit in the phrasing of the statement was the notion that behavior must be characterized as either masculine or feminine . A more desirable scale would be one which did not force sex role stereotyping.

A scale which has been developed and appears to get around the issue of forced stereotyping of behavior as masculine or feminine is the Attitudes Towards Women Scale (AWS) (Spence & Helmreich, 1972). This scale consists of statements concerning the appropriate behavior for women. One has the opportunity to agree or disagree with the statement along a continuum. No mention is made, however, of

masculine or feminine. The approach of the AWS seems more appropriate in these changing times. Though this scale has not been used in any of the fear of success research, its use is relatively widespread in current research in a number of related areas.

Summary and Conclusions

Although the research on sex role attitudes has been varied in terms of definition and measurement, a few consistent findings have emerged. Achievement motivation in women seems to be somewhat suppressed when women adhere to a strictly traditional sex role ideology (Alper, 1973; Lipman-Blumen, 1972).

Researchers have also investigated both the relationship between sex role attitudes and fear of success and their combined impact on achievement motivation and behavior.

The literature on the relationship between fear of success and sex role attitudes has been very mixed. A few researchers have found fear of success to be more prevalent among the traditionals (Alper, 1974; O'Leary and Hammack, 1975). Heilbrun, Kleemeier and Piccola (1974) had opposite findings in their study. A larger number of researchers, however, have concluded that there was no clear relationship between the two (Peplau, 1976a, 1976b; Romer, 1977; Tresemer, 1976; Zuckerman & Wheeler, 1975). The differences in results may be the result of differences between the scales which were used.

Research into the combined effects of fear of success and sex role attitudes has led some researchers to suggest

that four patterns of achievement behavior may result from the combination of the two factors (Alper, 1974; Peplau, 1976a). Laboratory results have supported this hypothesis in part (Peplau, 1976b).

The area of career salience research seems to provide the opportunity to test out hypotheses concerning the combined effects of fear of success and sex role attitudes outside of the laboratory setting.

Anxiety and Fear of Success

Horner's original formulation of the fear of success hypothesis asserted that fear of success would be more prevalent among able women. Horner (1972) believed that those women who were talented and ambitious would be more likely to fear success than the less ambitious and talented women.

Several researchers have pointed to the possibility that fear of success may not always have a debilitating effect upon performance. Rather, these researchers have speculated that for certain women, fear of success may have other psychological costs (Caballero, Giles, and Shaver, 1975; Fleming, 1977; Shaver, 1976).

Fleming (1977) discussed the possibility that fear of success might have a different impact depending on the sex role attitudes of a woman. He speculated that for traditional women who were high in fear of success there might be a functional debilitation. For those women, fear of

success might result in behavioral deficits, i.e., lowered career salience. For the women who are achievement oriented despite the presence of a fear of success, i.e., nontraditional, conflict arousal would result without a behavioral deficit.

Caballero, Giles and Shaver (1975) have speculated on the same sort of outcome as Fleming. These authors have speculated that many women with fear of success may continue to excel, these women may be suffering in some area unrelated to performance. Caballero et al. suggested that this group of women might have more psychosomatic symptoms.

Shaver (1976) expanded upon this speculation. Research evidence has lent support to Horner's hypothesis that the more talented and ambitious women would be more prone to fear success (Caballero et al., 1975). Based on these findings Shaver concluded that attempting to correlate real-world performance with fear of success is too simplistic. Many anxious subjects could be relatively successful and yet be anxious. Aside from psychosomatic symptoms, e.g., headaches, ulcers, colitis, and insomnia, Shaver speculated that these women might be more prone to alcoholism or dependency on tranquilizers.

No published research could be found which has actually tested the hypothesis that continued achievement in spite of fear of success will have psychological costs for a woman. Much of the speculation regarding the costs seems to center around the hypothesis that those women who continue to achieve

in spite of fear of success, will pay a cost in anxiety manifested in one way or another (Shaver, 1976).

Research into the relationship between fear of success and anxiety per se has been rather limited. Tresemer (1976), in a review of the fear of success literature, concluded that there has been no overall relationship between fear of success and anxiety. He cited the Alpert-Haber Achievement Anxiety Test and the Test Anxiety Questionnaire of the Mandler and Sarason as the measure which have been used to test the relationship.

Tresemer (1976) does state that a positive relationship has been found between fear of success and fear of failure when the Birney, Burdick and Teevan scoring system for fear of failure has been used.

Summary and Conclusions

A major difference can be found between the research cited by Tresemer (1976) and the speculations of Caballero, Giles and Shaver (1975), Fleming (1977) and Shaver (1976). The latter researchers did not predict an overall relationship between fear of success and anxiety. Rather they predicted that for those women who had a high fear of success but revealed no behavioral deficit, there might be a cost in anxiety. The studies cited by Tresemer (1976) have not taken into account whether there was or was not a behavioral deficit.

Bringing this research to the issue of career salience, the question takes the following form: Is there a cost in

generalized anxiety for those women who are high in fear of success, yet do not show a behavioral deficit, e.g., lowered career salience ?

To answer this question, a desirable scale would be one that measured generalized anxiety rather than a scale that measured anxiety only within a testing situation. The tests cited by Tresemer fall into the latter category. The State Trait Anxiety Inventory (Spielberger, Gorsuch & Lushene, 1970) measures both transitory, situational anxiety and more generalized anxiety. This scale seems to be a more promising measure for the purposes stated.

Chapter 3

Methodology

The purposes of this study are: 1.) to identify the differences between high fear of success and low fear of success women on the career salience variable; 2.) to identify the differences between the traditional and nontraditional women on the career salience variable; 3.) to study the interaction between the fear of success variable and the sex role attitudes variable on the career salience of women students; 4.) to identify the differences between the high fear of success and low fear of success women on the state anxiety and trait anxiety variables; 5.) to identify the differences between the high career salient and low career salient women on the state and trait anxiety variables; and 6.) to study the interaction between the fear of success variable and the career salience variable on the state anxiety and trait anxiety of female students.

Sample

The sample for this study consisted of 99 undergraduate women who were enrolled at the Ohio State University. The subjects were all females enrolled in an introductory psychology course. Their participation was in partial fulfillment of the departmental course requirement to serve in psychological research. This sample consisted primarily of students in the early years of their undergraduate careers.

This sample seemed appropriate, since students further along in their academic careers might tend to be a self selected sample of those individuals who are lower in fear of success. For the purpose of this study it was important to observe those individuals who are high in fear of success as well as those who are low in fear of success. The sample consisted of 63 freshmen, 30 sophomores, 3 juniors, 1 senior and 2 of unknown class standing. The age range of the sample was 18-23 years.

Instruments

In order to assess the levels of fear of success, sex role attitudes, career salience, and anxiety, four instruments were employed in this study; The Fear of Success Scale (FOSS) (Zuckerman & Allison, 1976), The Attitudes Towards Women Scale (AWS) (Spence & Helmreich, 1972), Career Salience Scale (Greenhaus, 1971), and the State-Trait Anxiety Inventory (STAI) (Spielberger, Gorsuch and Lushene, 1970)

The Fear of Success Scale (FOSS) was developed in a study by Zuckerman and Allison (1976), to assess individual differences in the motive to avoid success. The scale consists of 27 items, each item consisting of a statement followed by a seven-point agree-disagree continuum (see Appendix A). Potential scores range from 27- 189 with high scores indicating high fear of success. Of the 27 items, 16 are worded so that agreement reflects high fear of success, while the remaining 11 are worded so that agreement reflects low fear of success.

The scale was developed because its authors thought Horner's original TAT cue measure about Anne and John in medical school reflected stereotypes about males and females achievement rather than anxiety about success (Zuckerman & Allison, 1976; Monahan, Kuhn & Shaver, 1974). The FOSS has attempted to minimize the impact of cultural stereotypes on the scores by not mentioning a particular gender in the wording of the items and by not dealing with a specific task which could be construed as masculine or feminine.

A second advantage of this scale is that it results in a continuum of scores rather than a simple dichotomous present-absent system. This scoring system accommodates the notion that people can vary in degree of fear of success. The correlations between Horner's scale and the FOSS scale, though significant, are small. For males and females combined in one sample the correlation was .19 ($p < .05$) and in another it was .25 ($p < .05$) (Zuckerman & Allison, 1976). In a more recent study (Griffore, 1977) the FOSS was compared with Horner's newer scoring system and with another fear of success measure (Pappo). The FOSS scale correlated significantly with the Pappo measure, but not with the Horner measure.

An explanation for these findings which has been postulated (Griffore, 1977) is that fear of success might well be a situation specific state. The Horner cues may be tapping specific academic type situations, whereas the FOSS seems more concerned with items relating to general competition.

Relating the findings of this study to research using Horner's original cue will not be as direct as using Horner's cues would be, however, the trend in current fear of success research seems to be away from Horner's original cues. Horner herself, has developed a revised scoring system.²

In light of the current trend away from Horner's original measure and the development of a number of newer measures of fear of success, it seems appropriate to employ one of these newer measures.

The Attitudes Towards Women Scale (AWS) (Spence & Helmreich, 1972) was developed to measure a subject's attitudes towards the proper place of women in society. The scale consists of 55 items. Each item consists of a declarative statement followed by four response alternatives: Agree strongly, Agree mildly, Disagree mildly, and Disagree strongly. Each item is scored from 0-3, with 0 representing the response alternative reflecting the most traditional, conservative attitude, and 3 representing the most liberal pro-feminist response (see Appendix B). Each subject's score is the result of the sum of the values for each individual item. The possible range of scores is 0-165.

The 55 items have been informally categorized into six more or less independent groups according to their content. The categories are 1.) Vocational, educational, and

²It should be noted that the revised scoring system has also been the subject of criticism. Hoffman suggests that the new Horner scoring system might measure fear of failure. (Griffore, 1977).

intellectual roles (17 items), 2.) Freedom and independence (4 items), 3.) Dating, courtship and etiquette (7 items), 4.) Drinking, swearing, and dirty jokes (3 items), 5.) Sexual behavior (7 items) 6.) Marital relationships and obligations (17 items).

The scale was normed on 420 men and 520 women at the University of Texas at Austin during the Fall of 1971 and on another large sample the Spring of 1972. Two reliable factors emerged from the two samples of women. Factor I was a large global factor which describes the attitudes of the "conventional woman" in her relationship to men. Factor II related to equal treatment of men and women of equal ability.

In general use this scale has resulted in higher mean scores for female samples than male samples (higher scores being more nontraditional). The overlap between males and females scores is considerable. Normative data employing different age samples was undertaken by having both college students and their parents complete the questionnaires. The results of the study indicated that in general the means for the college students were lower than the means for the older samples. The mean for college females in the combined 1971-72 data was 98.21, while for college males the mean was 89.26. For mothers and fathers respectively the means were 86.5 and 81.36.

These means seem to indicate that the attitudes of the younger generation, with respect to the proper role of

women in society, tend to be more nontraditional on the whole, than the attitudes of their parents (the t comparing the means had $p < .05$).

On the whole women score higher (men are more traditional) in both generational groups. The difference in means between younger female and male samples seems to be greater than the difference between the means of the male and female parent samples.

This finding could lead one to expect that the means for females of college age might even be somewhat higher today than they were in 1971-72. If younger people are more open to nontraditional ideas it would seem possible that women in college today are more nontraditional than their 1971-72 counterparts.

The Career Salience Scale (Greenhaus, 1971) was developed to measure the degree to which a person is career motivated, the degree to which an occupation is seen as an important source of satisfaction, and the degree of priority ascribed to occupation among other sources of satisfaction.

The scale consists of 28 items, 27 of which are answered on a 5 point Likert format. Each statement is followed by five options: Strongly disagree, Disagree, Uncertain, Agree, and Strongly agree. The scoring is reversed on negatively worded items. The 28th item asks the respondent to rank order six particular areas of his/her life into the amount of satisfaction they expect from each area (see Appendix C). Item 28 was omitted from this analysis since psychometrically it

makes little sense to add the score on that item to the others. This has become standard practice.

The total career salience score is the unweighted sum of the responses to the first 27 items. High scores indicate high degrees of career salience, while lower scores reflect levels of career salience which are lower. The theoretical range of scores on the Career Salience Scale is 27-135.

The State-Trait Anxiety Inventory (STAI) (Spielberger, Gorsuch and Lushene, 1970) was developed to measure two distinct anxiety concepts: state anxiety and trait anxiety. State anxiety is conceptualized as a "transitory emotional state or condition of the human organism that is characterized by subjective, consciously perceived feelings of tension and apprehension, and heightened nervous system activity"(p.3). State anxiety because of its transitory nature is expected to vary over time and according to situation.

Trait anxiety is conceived to be a more stable individual difference. Trait anxiety refers to an individual's "tendency to respond to situations perceived as threatening with elevations in A-State intensity" (p.3).

In general, it would be expected that those who are high in A-Trait will experience high A-State scores more frequently than those individuals low in A-Trait. This expectation is based on the notion that for those individuals high in A-Trait a wider range of situations will be considered anxiety arousing.

The inventory consists of two separate self-report scales, the trait scale (A-Trait) and the state scale (A-State). The state scale consists of 20 items with directions that instruct the subject to answer the statements in terms of how they feel at that particular moment in time. The four categories of responses for the A-State scale are: Not at all, Somewhat, Moderately so, and Very much so.

The A-Trait scale consists of 20 items also, with directions that instruct the subject to answer in terms of how they feel in general. The four categories of responses for the A-Trait scale are: Almost never, Sometimes, Often and Almost always(see Appendix D).

The theoretical range of scores on the STAI is from 20-80 on each of the two subscales. Scores from the subscales are not combined.

Reliability studies on the scales have been done with expected results. The reliability of the A-State scale is low, as would be expected, since theoretically there should be great variations in scores due to situations. The reliability of the A- Trait scale, on the other hand, is much higher. Reliability tests with college undergraduates after 1 hour, 20 days and 104 days reveal a range of reliability for the A-Trait from .73 (104 days) to .86 (20 days). The A-State scale range ran from .16 (1 hour) to .54 (20 days). Measures of internal consistency appear to be reasonably high.

This scale was originally developed as a research

instrument for investigating anxiety phenomena in "normal" adults. The STAI has also been used with populations as diverse as junior and senior high school students, neuropsychiatric, medical and surgical patients

Procedure

The four instruments used were stapled together in random order, along with a cover sheet which asked for certain demographic data, i.e., age, year in school, marital status.

The questionnaires were administered in a standard classroom in groups varying in size from approximately 8 - 25. The instructions given by the experimenter are included (see Appendix E). The subjects completed these questionnaires over a three week period during Fall quarter 1977.

Subjects required approximately 45 minutes to complete the questionnaires. Those subjects so desiring, were given the opportunity to remain upon completion of the questionnaires, to find out more about the study. Those subjects interested in a summary of the findings left their addresses with the experimenter. A summary of results has been prepared for them.

Experimental Groups

Median splits were performed on the sample with regard to Fear of Success scores and the Attitudes Towards Women scores. Combining the Fear of Success information and the Attitudes Towards Women information, four experimental groups were defined:

- 1.High Fear of Success- Traditional
- 2.High Fear of Success- Nontraditional
- 3.Low Fear of Success- Traditional
- 4.Low Fear of Success- Nontraditional

Subjects fit into one of these four categories through self selection, since it was their own responses on each of the two questionnaires, FOSS and AWS, that determined their locations. Mean career salience scores are compared across these four groups.

For the purposes of the second part of this study a median split was performed on the career salience scores. Combining the Career Salience information and the Fear of Success information, four new experimental groups were defined:

- 1.High Career Salience- High Fear of Success
- 2.High Career Salience- Low Fear of Success
- 3.Low Career Salience- High Fear of Success
- 4.Low Career Salience- Low Fear of Success

Mean state and trait anxiety scores are compared across these four groups.

Hypotheses

The hypotheses were as follows:

1A) Women high in fear of success are significantly lower than women low in fear of success on the career salience variable.

1B) Women who are traditional in their attitudes towards women are significantly lower than women who are nontraditional

in their attitudes towards women on the career salience variable.

1C) Women who are both traditional and high in fear of success have the lowest level of career salience, while those women who are low in fear of success and nontraditional are the highest in career salience. The high fear of success - nontraditional and the low fear of success - traditional groups have moderate levels of career salience.

No hypothesis was made with respect to the distribution of women in these four fear of success/ attitudes towards women groups, since the literature was mixed in this regard.

2A) High fear of success women are higher in trait anxiety than low fear of success women.

2B) High career salience women and low career salience women are no different in trait anxiety.

2C) Women high in both fear of success and career salience are highest in trait anxiety of the four groups. Women high in fear of success and low in career salience are moderate in trait anxiety. Women low in fear of success are low in trait anxiety, regardless of career salience level.

No hypotheses were made, regarding the levels of state anxiety, since the debilitating effect of fear of success was hypothesized to be generalized, rather than strictly situational.

Chapter 4

Results

Results of the two way analysis of variance are presented in Table 1, while the mean career salience scores and standard deviations of the four fear of success/ sex role attitude groups are presented in Table 2.

An examination of Table 1 reveals that a significant main effect was found for fear of success on career salience scores ($p < .01$). Table 2 reveals that this effect was in the predicted direction. The overall mean career salience score for those women high in fear of success was lower than the overall mean career salience score of those women low in fear of success³ (91.26 versus 96.66).

Attitudes towards women groups did not differ significantly with respect to career salience scores ($p = .08$), though the means were in the predicted direction. The overall mean career salience score for the female undergraduates categorized as traditional was lower than the mean career salience score for those women categorized as nontraditional⁴ (92.18 vs. 95.80).

The interaction of fear of success and sex role attitudes was also not significant according to the analysis of variance (see Table 1) ($p = .77$). A closer examination of the means for the four fear of success/sex role attitudes groups reveals

³Median splits were performed after the data was collected. High fear of success > 82 pts., Low fear of success ≤ 82 pts. of 189.

⁴Traditional women < 110 pts.; Nontraditional > 110 pts. Maximum possible score = 165 pts.

that those women who were both low in fear of success and nontraditional had the highest mean career salience score. Those women who were traditional and high in fear of success had the lowest mean career salience scores. The other two combinations (high FOS/Nontraditional, low FOS/Traditional) resulted in intermediate levels of career salience. The difference between cell means appears to be the result of an additive effect between the two variables rather than a multiplicative interaction effect between the two variables. The interaction term in the analysis of variance represents only a multiplicative interaction .

A test of multiple regression entering fear of success, attitudes towards women, and the interaction of the two variables as predictors of career salience was performed. In this test the continuous nature of the Fear of Success Scale and the Attitudes Towards Women Scale was utilized. This regression equation taken as a whole had a significant effect in predicting the level of career salience ($F = 3.59$, $p = .02$). Using a partial sums of squares test, none of the effects were significant by themselves. The partial sums of squares test tends to be a conservative procedure. Fear of Success was not significant ($F = 2.09$, $p = .15$); Attitudes Towards Women was also not significant ($F = 0.73$, $p = .39$); nor was the interaction between the two ($F = 1.23$, $p = .27$).

When the two major independent variables, fear of success and sex role attitudes were looked at together, partialling

out the effect of any interaction between the two, the combined beta weight was significant ($F = 5.15$, $p < .01$). This finding suggests that although neither fear of success nor attitudes towards women alone could significantly predict career salience scores, when information on both of these variables is combined additively significant predictions can be made. Hypothesis 1C is therefore partially supported. The two variables, fear of success and attitudes towards women in combination do predict levels of career salience in the expected directions. The effect of the two variables in combination is not a multiplicative interaction.

The difference between the Sums of Squares for the two combined variables alone (FOS & AWS: $SS = 1087.54$) and for the regression equation as a whole ($SS = 1134.97$) is small. The size of this difference indicates that the interaction term is really contributing very little to the overall significance of the regression equation, since the interaction term represents the only difference between the two equations. (See Appendix F for regression equations).

The results of the first part of the present study suggest that attitudes towards women and fear of success appear to be unrelated. An examination of Table 2 reveals that the number of women in each cell is almost a perfect random distribution. Those women who were traditional and nontraditional were equally likely to be high or low in fear of success. The high and low fear of success subjects were also equally

likely to be traditional or nontraditional. Correlational analysis between the two variables, fear of success and attitudes towards women yielded an insignificant correlation ($r = -0.06$, $p = .56$). This correlation supports the notion that fear of success and attitudes towards women are tapping different dimensions.

The results of the two way analysis of variance for state and trait anxiety are presented in Table 3, while the mean state and trait anxiety scores and standard deviations of the four career salience/ fear of success groups are presented in Table 4.

All hypotheses for the anxiety analysis, had been made with respect to trait anxiety levels, however, an examination of Table 3 reveals that a significant main effect has occurred for fear of success with respect to state anxiety ($p = .014$). Table 4 reveals that the mean state anxiety score for those women who are high in fear of success across salience groups, is higher than the mean state anxiety scores of those women low in fear of success. This trend appears especially pronounced for those subjects high in career salience. No other significant findings occurred with respect to trait anxiety scores. Table 4 reveals that the state anxiety scores of high and low career salience groups do not differ from one another.

The results of the analysis of variance for trait anxiety yielded no significant findings, thus all the hypotheses made with respect to trait anxiety have not been supported, except

for hypothesis 2B which had predicted no significant differences in trait anxiety scores as a function of career salience.

An examination of Table 4 reveals that the mean trait anxiety scores for those subjects low in fear of success and those subjects high in fear of success are almost identical, across career salience groups. No unique trends seem to emerge within the four cells for trait anxiety. The mean trait anxiety scores for subjects high in career salience are slightly lower than the mean trait anxiety scores for those subjects low in career salience, though not approaching a significant level.

Two separate tests of multiple regression were performed entering fear of success, career salience, and the interaction of the two variables as predictors of state and trait anxiety. In these tests, unlike the analysis of variance, the continuous nature of the fear of success scale and the career salience scales were utilized. The two regression equations which resulted did not have a significant effect in predicting either the level of state or trait anxiety ($F = 1.91$, $p = .13$, and $F = 0.58$, $p = .63$ respectively). Since the two regression equations as a whole were not significant, none of the individual components were significant. (See Appendix F for regressions).

Summary

The results of the first set of analyses seem to indicate that fear of success and attitudes towards women are significant predictors of career salience level when in combination with one another, according to the multiple regression analysis.

Fear of Success, alone, according to the analysis of variance did have a significant effect on career salience, however, this result was not supported by the multiple regression analysis.

The second set of analyses , concerning anxiety levels, did not conform to the previously stated hypotheses. The results indicate that the level of fear of success and career salience both individually and in combination are not significant predictors of the level of trait anxiety. There is some reason to believe that fear of success may be a predictor of state anxiety, however, at this point in time the results are mixed.

Table 1

Analysis of Variance of Career Salience Scores
by Fear of Success and Attitudes Towards Women

Source	<u>df</u>	<u>MS</u>	<u>F</u>
Fear of Success (F) 1		717.48	6.75 *
Attitudes Towards			
Women (A) 1		332.34	3.12
F x A 1		9.36	0.09
Error 95		106.37	
Total 98			

* $p \leq .01$

Table 2

Mean Career Salience Scores and Standard Deviations
of Female Undergraduates with Different Levels
of Fear of Success and Attitudes Towards Women

Fear of Success ^a		Attitudes Towards Women ^a			
		Traditional		Nontraditional	
Low	Mean	94.52	(25) ^b	98.80	(25)
	S.D.	8.17		11.05	
High	Mean	89.75	(24)	92.80	(25)
	S.D.	7.74		13.22	

Note. Maximum career salience score = 135.

^aMedian splits were performed to determine high and low levels of fear of success and traditional and nontraditional attitudes towards women.

^bNumbers in parentheses indicate the number of subjects in each cell.

Table 3

Analysis of Variance of Anxiety Scores
by Fear of Success and Career Salience

Source	<u>df</u>	<u>MS</u>	<u>F</u>
State Anxiety			
Fear of Success (F)	1	663.99	6.23 *
Career Salience (C)	1	5.17	0.05
F x C	1	142.10	1.33
Error	94	106.63	
Total	97		
Trait Anxiety			
Fear of Success	1	1.24	0.02
Career Salience	1	175.92	2.17
F x C	1	4.76	0.06
Error	94	81.06	
Total	97		

* $p = .014$

Table 4

Mean Anxiety Scores and Standard Deviations of
Female Undergraduates with Different Levels of
Career Salience and Fear of Success

Career Salience ^a					
Fear of Success ^a		Low		High	
State Anxiety					
Low	Mean	37.21	(19) ^b	35.20	(30)
	S.D.	8.85		7.74	
High	Mean	40.10	(31)	43.06	(18)
	S.D.	10.96		13.87	
Trait Anxiety					
Low	Mean	42.37	(19)	39.13	(31)
	S.D.	8.55		10.43	
High	Mean	41.68	(31)	39.35	(17)
	S.D.	8.77		6.77	

Note. Maximum score on each anxiety scale = 80.

^aMedian splits were performed to determine high and low levels of career salience and fear of success.

^bNumbers in parentheses indicate the number of subjects.

Chapter 5
Discussion

The first part of this study explored the relationship between fear of success, sex role attitudes, and career salience in women. The clearest finding in this portion of the research is that fear of success and sex role attitudes in combination significantly predicted the level of career salience in women, yet neither fear of success, nor sex role attitudes alone could significantly predict career salience in the multiple regression analysis.

Those women who were both low in fear of success and non-traditional in their sex role attitudes evidenced the highest levels of career salience. Career Salience was at its lowest levels among those women who were high in fear of success and traditional in their sex role attitudes. These findings seem to suggest that fear of success may suppress career salience to a significant degree only when in combination with traditional sex role attitudes. In the same way traditional sex role attitudes appear to suppress the level of career salience to a significant degree only when in combination with high levels of fear of success.

The results of the analysis of variance suggest that fear of success alone may be a better predictor of career salience than sex role attitudes alone would be. This finding did not receive significant support in the multiple regression analysis.

The significant effect of fear of success in the analysis of variance involved only a median split, whereas the multiple regression analysis employed the continuous nature of the fear of success scale. The difference in significance was probably the result of a large number of scores close to the median. In the analysis of variance these scores became categorized as high or low, just as the more extreme scores did. The multiple regression analysis, on the other hand, used these scores as they were.

The second part of this study explored the relationship between fear of success, career salience and state and trait anxiety. The results do not support the prediction that women who were high in fear of success, yet high in career salience are more anxious in general i.e., trait anxious.

The only significant finding in relation to the second part of the study is that, according to the analysis of variance, a significant link exists between fear of success and state anxiety during the period of time that subjects were completing the questionnaires. This finding is unrelated to any of the previously stated hypotheses, and also not supported by the multiple regression analysis. One possibility is that for those women who are high in fear of success, participating in research as subjects may be an anxiety inducing experience. Since the order in which the questionnaires were administered was varied randomly, one can only make statements regarding the general experimental situation, rather than the impact

of any one particular questionnaire. Increased levels of state anxiety in high fear of success women seems to lend some credence to the notion that fear of success is situationally-aroused, however, the results are not at all clearcut.

The hypothesis that high fear of success women who are also high in career salience will be more trait anxious, was not supported. On the basis of the current findings, it appears that the psychological "costs" of fear of success, if any, are of a transient nature. It seems possible, for example, that if one were to measure the anxiety level of a high fear of success woman at a turning point in her career, some significant increase in anxiety may be observed. In the present study it appears that the cognitive awareness of a desire for high career salience in combination with high fear of success is not a powerful enough stimulus for anxiety arousal.

Relationship to other research

Career Salience

In relation to the career salience research in general, the findings of this study tend to confirm the hypothesis that intrapsychic variables can help to explain the level of career salience in women.

The present research findings also lend support to the hypothesis that the situational factors which have been associated with high levels of career salience may be concomitantly, rather than causally related. For example,

Hoffman (1977) found that women who were rated high in fear of success in 1965 were more likely to be married, to be mothers, and to have more children upon follow-up than those women who were low in fear of success in 1965. Some of these factors are the very ones which have been associated with low career salience by other researchers (Harmon, 1970). It appears that intrapsychic factors such as fear of success are playing a role in both career salience and these other situational variables.

Fear of Success and Sex Role Attitudes

The first question which was explored in regard to fear of success and sex role attitudes dealt with what sort of relationship existed between these two variables. In the present research there is no evidence of a significant relationship between the two. The correlation between the two ($r = -.06$, $p = .56$) was a very small one. The lack of relationship between the two variables lends further support to the conclusions of Peplau (1976a), Romer (1977), Tresemer (1976) and Zuckerman and Wheeler (1975).

One important difference between the present research and these other studies in the area is that the present research used the Fear of Success Scale (Zuckerman & Allison, 1976) rather than Horner's traditional TAT cue. One possible reason why relationships have been found between fear of success and sex role attitudes in the past (Alper, 1974; O'Leary & Hammack, 1975) could be differences in the measures used.

A hypothesis was set forth earlier, that arousal of fear of success in Horner's measure is affected by sex role attitudes. If this hypothesis is correct then one might expect that there would be a relationship between sex role attitudes and Horner's measure. The Fear of Success Scale employed in this study has attempted to avoid the confounding effect of sex role attitudes, and in that way appears to be a more pure measure of fear of success as defined by Horner.

The next major question which was explored in regard to fear of success and sex role attitudes dealt with their separate and possible combined impact on achievement behavior. In the present research, career salience is assumed to be one reflection of achievement behavior.

Fear of success and sex role attitudes in combination are significant predictors of career salience. Other research in the area of achievement behavior has suggested the possibility of a combined impact, however, all previous tests of the hypothesis have been in laboratory settings working on experimental tasks (Alper, 1974; Peplau, 1976a, 1976b).

Peplau (1976b) did a laboratory comparison of the impact of fear of success and sex role attitudes on achievement behavior. Her findings differed from the present research in that sex role attitudes were a more significant predictor of achievement behavior than fear of success. The results of the current study suggest that fear of success alone may be a better predictor than sex role attitudes. Once again a different

measure of fear of success was employed. Peplau used Horner's measure.

Peplau (1976b) found that under competitive conditions those women who were high in fear of success and traditional performed significantly worse than the low fear of success/liberals. This is the same group that had the lowest level of career salience in the present research.

Researchers have suggested that fear of success is a fear of gender-inappropriate behavior (Alper, 1974; Cherry & Deaux, 1978; Janda, O'Grady, & Capps, 1978). If that hypothesis is correct then having some idea of what a woman considers "gender-inappropriate" will help in making predictions regarding actual behavior. Evidence has been found both in the laboratory (Peplau, 1976b) and now out of the laboratory, that the impact of fear of success will be mediated by a woman's sex role attitudes. These findings lend support to this hypothesis.

Fear of Success and Anxiety

The present research worked on the assumption that the general anxiety level was at the root of many of the psychological costs of achievement in spite of fear of success which had been speculated upon. The specific "costs" speculated upon included increased psychosomatic symptoms, headaches, ulcers, colitis, the increased possibility of alcoholism, and and the increased likelihood of dependence on tranquilizers (Caballero, Giles, & Shaver, 1975; Fleming, 1977; Shaver, 1976).

The results of the present investigation have not confirmed the speculations of these researchers regarding the psychological costs of achievement despite fear of success.

The psychological costs about which these researchers speculated may be temporary states of arousal only at significant points in a woman's life. A woman may show no psychological costs of fear of success and high career salience until a time when she is promoted. This speculation seems to merit further investigation. The results of the present study are inconclusive with respect to temporary anxiety states.

The major significant finding related to anxiety is that women high in fear score higher in state anxiety according to the analysis of variance, however according to the multiple regression analysis the effect was not significant. The correlation between state anxiety and fear of success was significant ($r = .21$, $p = .04$). This relationship had not been predicted since previous research into the relationship between fear of success and anxiety has generally concluded that there is no overall relationship (Tresemer, 1976). These studies, however, have used neither the FOSS nor the STAI to measure the two factors.

The findings of the present investigation tend to suggest that there may be a significant relationship between FOSS and state anxiety. Since state anxiety is a transient phenomena the findings would depend on the conditions under which the tests were administered.

Limitations

The present investigation has several methodological limitations: the use of the Fear of Success Scale which has not been used for most previous research in the area, a sample that may be too young to display the full impact of fear of success, and the lack of a sufficient stimulus to determine any arousal associated with actual career salience.

The Fear of Success Scale which was used in this study did yield significant findings in terms of being significantly linked with career salience especially when used in combination with a sex role attitudes measure. One of the major limitations inherent in the use of this scale is its lack of widespread use in fear of success research. Applying the findings of this research to other research in the fear of success area which has used Horner's measure can only be done with the inclusion of certain qualifying statements. The correlation between the two measures is not high. The results of the present research provide favorable support for the use of the FOSS, however, it appears that the two instruments are not measuring precisely the same phenomena. As stated previously one major difference between the two measures may be the implicit inclusion of certain sex role dimensions in Horner's measure. These sex role dimensions appear to have been eliminated in the FOSS.

A second limitation related to the use of the FOSS relates to the continuous nature of the scale. In research employing Horner's scale, a major research question has been what

percentage of the population shows evidence of fear of success. Determining a percentage of the population which evidences fear of success is a difficult task when the scale is continuous in nature. No clear cutoffs are provided as to what constitutes fear of success versus no fear of success. The possibility exists, however, that measuring the degree to which a person fears success more closely reflects the reality of the world than a dichotomous categorization does.

A third limitation of the present research relates to the sample of women which was employed. The sample consisted mainly of freshmen and some sophomores (63 of the 99 women were freshmen). The research was conducted during the fall quarter, which means that the majority of women were probably first quarter freshmen, just recently exposed to the college environment. If Horner's predictions are correct and fear of success leads to lowered career aspirations as women progress through college, then employing freshmen may understate the impact of fear of success on career salience. A problem inherent in the use of an older sample, however, would be that the range of career salience scores may be more restricted. Those women who have lowered their aspirations to a large degree may very well have dropped out of school and never appear in a college sample.

A fourth limitation of the present research relates specifically to the hypothesis set forth in the second part of the study. Several researchers have hypothesized that

psychological costs will result for women who continue to achieve in spite of high levels of fear of success. Expecting to find increased levels of generalized anxiety in college freshmen who score highly on a career salience measure was probably somewhat naive. A true test of the suggested hypothesis would probably require a more immediate and real achievement situation e.g., just getting promoted on a job. In this respect the present research failed to adequately test the hypothesis.

In summary the limitations of the current study center around the fear of success measure employed, the restricted age of the sample, and the lack of a true achievement/ career situation in relation to which anxiety could be measured.

Implications for further research

Career Salience

The present study has found that fear of success and sex role attitudes in combination can serve as significant predictors of career salience in women. These findings support the further search for intrapsychic factors to help explain career salience in women.

Future research is needed which determines the extent to which these intrapsychic factors interact with situational factors to determine outcome, i.e., actual level of career salience. Ideally longitudinal research could answer many questions.

The intrapsychic factors employed in the current study surely are not exhaustive of all possible intrapsychic

factors which could relate to career salience. Future research needs to be done which explores other possible intrapsychic factors, e.g., need achievement, fear of failure, in combination with those factors included here. Tresemer (1976) has suggested that a reanalysis of Horner's data indicates that the greatest performance decrement in women occurred for women high in fear of success and low in need for achievement.

Fear of Success

The findings of the present study raise a number of questions about the traditional measurement of fear of success i.e., Horner's verbal TAT cues. One of the major research issues which requires exploration is the relationship between the FOSS employed here and Horner's measure.

In the literature review on fear of success, a hypothesis was set forth regarding the implicit involvement of sex role attitudes in Horner's measure. Anne as a medical school student was seen by many as sex inappropriate. When the activities in these cues were altered the underlying assumption was that the researcher could universally determine what was sex-appropriate and what was not. This assumption was brought into question. The suggestion was made and carried out here that a general measure of fear of success along with a sex role attitudes questionnaire would separate the two factors and yield more clear predictions. The combination of the two scales yielded significant findings in relation to career

salience. Future research could determine whether the two scales employed in the current study (FOSS and AWS) will significantly predict the presence of fear of success imagery in response to a variety of TAT cues. If the two scales do significantly predict fear of success imagery, then the low correlations between Horner's measure and the FOSS would be explained. The difference could be largely attributed to the impact of sex role attitudes on the presence of fear of success imagery in Horner's measure.

A second area of fear of success research suggested by the present investigation relates to the hypothesis that those women who continue to achieve in spite of high levels of fear of success will suffer psychological costs. This hypothesis did not receive support in the present investigation, however, it seems to merit further research. Future research could test this hypothesis on a sample of women actually engaged in careers, especially those women at turning points in their careers.

In summary three veins of research have been suggested on the basis of the current research. A continued search for intrapsychic variables to explain career salience in women is urged, especially longitudinal research. The continued use of the Fear of Success Scale is urged and further exploration into its relationship with Horner's FOS measure has been suggested. Lastly a suggestion has been made that the psychological costs of fear of success and continued achievement be explored in the field.

Chapter 6

Summary and Conclusions

The present study had two major purposes. The first part of the study investigated the impact of fear of success and sex role attitudes on the level of career salience in college women. The second part of the study investigated the possible impact of continued achievement strivings despite high levels of fear of success, on the anxiety levels of college women.

The sample consisted of 99 undergraduate women, predominantly freshmen, who participated as partial fulfillment of their course requirements.

Four instruments were utilized in the study: 1.) The Fear of Success Scale (Zuckerman & Allison, 1976) was used to assess the level of fear of success; 2.) The Attitudes towards Women Scale (Spence & Helmreich, 1972) was used to assess the degree to which a subject's sex role attitudes were traditional or nontraditional; 3.) The Career Salience Scale (Greenhaus, 1971) was used to get a measure of career commitment; and 4.) The State-Trait Anxiety Inventory (Spielberger, Gorsuch & Lushene, 1970) was used to assess both the temporary anxiety level and general anxiety levels of the subjects.

In this study fear of success and sex role attitudes, in combination, significantly predicted the level of career salience. The women higher in fear of success and more

traditional tended to be lower in career salience, Neither of the two measures significantly predicted the level of career salience alone in the multiple regression analysis. Results of the analysis of variance suggested that fear of success as measured in this study may be a slightly better predictor of career salience than sex role attitudes.

The state and trait anxiety levels of women who were both high in fear of success and high in career salience did not differ significantly from any other groups. A true test of the psychological costs of continued achievement despite high levels of fear of success would probably require a sample of women actively engaged in careers.

The results of this study suggest the possibility that the presence of fear of success, irrespective of career salience level, may be linked with higher levels of state anxiety during the experimental situation. The analysis of variance and the correlation between the two measures were significant, while the multiple regression analysis was not. Consistent with the theoretical formulations of the fear of success literature, women who are high in fear of success, may experience a state of arousal in achievement situations. For those women being subjects in experimental research may be construed as an achievement task.

APPENDIX A

Attitudes Inventory

INSTRUCTIONS: In this questionnaire you will find a number of statements. For each statement a scale from 1 to 7 is provided, with 1 representing one extreme and 7 the other extreme. In each case place a check on the line under the appropriate category to indicate whether or not you agree with the statement. This is a measure of personal attitudes. There are no right or wrong answers. Please answer all items.

- 1- Strongly Disagree = SD
 2- Disagree = D
 3- Mildly Disagree = MD
 4- Uncertain = U
 5- Mildly Agree = MA
 6- Agree = A
 7- Strongly Agree = SA

Items	SD (1)	D (2)	MD (3)	U (4)	MA (5)	A (6)	SA (7)
1. I expect other people to fully appreciate my potential.							
2. Often the cost of success is greater than the reward.							
3. For every winner there are several rejected and unhappy losers.							
4. The only way I can prove my worth is by winning a game or doing well on a task.							
5. I enjoy telling my friends that I have done something especially well.							
6. It is more important to play the game than to win it.							
7. In my attempt to do better than others, I realize I may lose many of my friends.							
8. In competition I try to win no matter what.							
9. A person who is at top faces nothing but a constant struggle to stay there.							
10. I am happy only when I am doing better than others.							
11. I think "success" has been emphasized too much in our culture.							
12. In order to achieve one must give up the fun things in life.							
13. The cost of success is overwhelming responsibility.							
14. Achievement commands respect.							
15. I become embarrassed when others compliment me on my work.							
16. A successful person is often considered by others to be aloof and snobbish.							

	SD (1)	D (2)	MD (3)	U (4)	MA (5)	A (6)	SA (7)
17. When you're on top, everyone looks up to you							
18. People's behavior change for the worst after they become successful.							
19. When competing against another person, I sometimes feel better if I lose than if I win.							
20. Once you're on top, everyone is your buddy and no one is your friend.							

APPENDIX B

ATTITUDES TOWARD WOMEN

The statements listed below describe attitudes toward the role of women in society which different people have. There are no right or wrong answers, only opinions. You are asked to express your feelings about each statement by indicating whether you (A) Agree strongly, (B) Agree mildly, (C) Disagree mildly, or (D) Disagree strongly. Please indicate your opinion by marking the column on the answer sheet which corresponds to the alternative which best describes your personal attitude. Please respond to every item.

(A) Agree strongly (B) Agree mildly (C) Disagree mildly (D) Disagree strongly

	<u>(A)</u>	<u>(B)</u>	<u>(C)</u>	<u>(D)</u>
1. Women have a obligation to be faithful to their husbands.	_____	_____	_____	_____
2. Swearing and obscenity is more repulsive in the speech of a women than a man.	_____	_____	_____	_____
3. The satisfaction of her husbands sexual desires is a fundamental obligation of every wife.	_____	_____	_____	_____
4. Divorced men should help support their children but should not berequired to pay alimony if their wives are capable of working.	_____	_____	_____	_____
5. Under ordinary circumstances, men should be expected to pay all the expenses while they're out on a date.	_____	_____	_____	_____
6. Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day.	_____	_____	_____	_____
7. It is all right for wives to have an occasional, casual, extramarital affair.	_____	_____	_____	_____
8. Special attentions like standing up for a woman who comes into a room or giving her a seat on a croded bus are outmoded and should be discontinued.	_____	_____	_____	_____
9. Vocational and professional schools should admit the best qualified students, independent of sex.	_____	_____	_____	_____
10. Both husband and wife should be allowed the same grounds for divorce.	_____	_____	_____	_____
11. Telling dirty jokes should be mostly a masculine prerogative.	_____	_____	_____	_____
12. Husbands and wives should be equal partners in planning the family budget.	_____	_____	_____	_____

	(A)	(B)	(C)	(D)
13. Men should continue to show courtesies to women such as holding open the door or helping them on with their coats.	_____	_____	_____	_____
14. Women should claim alimony not as persons incapable of self-support but only when there are children to provide for or when the burden of starting life anew after the divorce is obviously heavier for the wife.	_____	_____	_____	_____
15. Intoxication among women is worse than intoxication among men.	_____	_____	_____	_____
16. The initiative in dating should come from the man.	_____	_____	_____	_____
17. Under modern economic conditions with women being active outside the home, men should share in household tasks such as washing dishes and doing the laundry.	_____	_____	_____	_____
18. It is insulting to women to have the "obey" clause remain in the marriage service.	_____	_____	_____	_____
19. There should be a strict merit system in job appointment and promotion without regard to sex.	_____	_____	_____	_____
20. A woman should be as free as a man to propose marriage.	_____	_____	_____	_____
21. Parental authority and responsibility for discipline of the children should be equally divided between husband and wife.	_____	_____	_____	_____
22. Women should worry less about their rights and more about becoming good wives and mothers.	_____	_____	_____	_____
23. Women earning as much as their dates should bear equally the expense when they go out together.	_____	_____	_____	_____
24. Women should assume their rightful place in business and all the professions along with men.	_____	_____	_____	_____
25. A woman should not expect to go to exactly the same places or to have quite the same freedom of action as a man.	_____	_____	_____	_____
26. Sons in a family should be given more encouragement to go to college than daughters,	_____	_____	_____	_____
27. It is ridiculous for a woman to run a locomotive and for a man to darn socks.	_____	_____	_____	_____

	(A)	(B)	(C)	(D)
28. It is childish for a woman to assert herself by retaining her maiden name after marriage.	_____	_____	_____	_____
29. Society should regard the services rendered by the women workers as valuable as those of men.	_____	_____	_____	_____
30. It is only fair that male workers should receive more pay than women even for identical work.	_____	_____	_____	_____
31. In general, the father should have greater authority than the mother in bringing up of the children.	_____	_____	_____	_____
32. Women should be encouraged not to become sexually intimate with anyone before marriage, even their fiancés.	_____	_____	_____	_____
33. Women should demand money for household and personal expenses as a right rather than as a gift.	_____	_____	_____	_____
34. The husband should not be favored by law over the wife in the disposal of family property or income.	_____	_____	_____	_____
35. Wifely submission is an outworn virtue.	_____	_____	_____	_____
36. There are some professions and types of businesses that are more suitable for men than women.	_____	_____	_____	_____
37. Women should be concerned with their duties of child rearing and housetending rather than with desires for professional and business careers.	_____	_____	_____	_____
38. The intellectual leadership of a community should be largely in the hands of men.	_____	_____	_____	_____
39. A wife should make every effort to minimize irritation and inconvenience to the male head of the family.	_____	_____	_____	_____
40. There should be no greater barrier to an unmarried woman having sex with a casual acquaintance than having dinner with him.	_____	_____	_____	_____
41. Economic and social freedom is worth far more to women than acceptance of the ideal of femininity which has been set by men.	_____	_____	_____	_____
42. Women should take the passive role in courtship.	_____	_____	_____	_____
43. On the average, women should be regarded as less capable of contribution to economic production than are men.	_____	_____	_____	_____

	<u>(A)</u>	<u>(B)</u>	<u>(C)</u>	<u>(D)</u>
44. The intellectual equality of woman with man is perfectly obvious.	_____	_____	_____	_____
45. Women have full control of their persons and give or withhold sex intimacy as they choose.	_____	_____	_____	_____
46. The husband has in general no obligation to inform his wife of his financial plans.	_____	_____	_____	_____
47. There are many jobs in which men should be given preference over women in being hired or promoted.	_____	_____	_____	_____
48. Women with children should not work outside the home if they don't have to financially.	_____	_____	_____	_____
49. Women should be given equal opportunity with men for apprenticeship in the various trades.	_____	_____	_____	_____
50. The relative amounts of time and energy to be devoted to household duties on the one hand and to a career on the other should be determined by personal desires and interests rather than by sex.	_____	_____	_____	_____
51. As head of household, the husband should have more responsibility for the family's financial plans than his wife.	_____	_____	_____	_____
52. If both husband and wife agree that sexual fidelity isn't important, there's no reason why both shouldn't have extramarital affairs if they want to.	_____	_____	_____	_____
53. The husband should be regarded as the legal representative of the family group in all matters of law.	_____	_____	_____	_____
54. The modern girl is entitled to the same freedom from regulation and control that is given to the modern boy.	_____	_____	_____	_____
55. Most women need and want the kind of protection and support that men have traditionally given them.	_____	_____	_____	_____

APPENDIX C

INSTRUCTIONS: Please indicate how much you agree or disagree with each of the following statements by placing a check on the line under the appropriate category. Please try not to leave any statements out.

- (1) SD = Strongly Disagree
 (2) D = Disagree
 (3) U = Uncertain
 (4) A = Agree
 (5) SA = Strongly Agree

	(1) SD	(2) D	(3) U	(4) A	(5) SA
1. I intend to pursue the job of my choice even if it cuts deeply into the time I have for my family.					
2. It is more important to have some leisure time after work, and to enjoy some of the adventures of the mind (art, music, literature, etc.) than to have a job in your chosen field, be devoted to it, and be a success at it.					
3. If you work very hard on your job, you can't enjoy the better things in life.					
4. Work is one of the few areas in life where you can gain real satisfaction.					
5. I intend to pursue the job of my choice, even if it limits my personal freedom to enjoy life.					
6. To me, a job should be viewed primarily as a way of making good money.					
7. I enjoy thinking about and making plans about my future career.					
8. It is difficult to find satisfaction in life unless you enjoy your job.					
9. Work is one of those necessary evils.					
10. Deciding on a career is just about the most important decision a young person makes.					
11. I don't think too much about what type of job I'll be in ten years from now.					
12. I'm ready to make many sacrifices to get ahead in my job.					
13. I look at a career as a means of expressing myself.					
14. I would consider myself extremely "career minded".					
15. I could never be truly happy in life unless I achieved success in my job or career.					
16. I intend to pursue the job of my choice, even if it allows only very little opportunity to enjoy my friends.					

	(1)	(2)	(3)	(4)	(5)
	<u>SD</u>	<u>D</u>	<u>U</u>	<u>A</u>	<u>SA</u>
17. I want to be able to pretty much forget my job when I leave work in the evenings.					
18. I started thinking about jobs and careers when I was young.					
19. I intend to pursue the job of my choice, even if it leaves me little time for my religious activities.					
20. It is more important to have a job in your chosen field of interest, be devoted to it, and be a success at it than to have a family that is closely knit and that shares many experiences.					
21. The whole idea of working and holding a job is kind of distasteful to me.					
22. Planning for and succeeding in a career is my primary concern.					
23. I often find myself thinking about whether I will enjoy my chosen field.					
24. It is more important to be liked by your fellow men, devote your energies for the betterment of man, and be at least some help to someone, than to have a job in your chosen field of interest, be devoted to it and be a success at it.					
25. Planning for a specific career usually is not worth the effort; it doesn't matter too much what you do.					
26. I would move to another part of the country if I thought it would help advance my career.					
27. I never really thought about these types of questions very much.					
28. Rank the following activities in terms of how much satisfaction you expect they will give you in your life. Rank them from 1 (most satisfaction) to 6 (least satisfaction).					

____ Family relationships

____ Leisure time recreational activities

____ Religious beliefs and activities

____ Your career or occupation

____ Participation as a citizen in affairs of your community

____ Participation in activities directed toward the betterment of national or international affairs

APPENDIX D

SELF-EVALUATION QUESTIONNAIRE

Developed by C.D. Spielberger, R.L. Gorsuch and R. Lushene

STAI Form X-1

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then mark the appropriate space to the right of the statement to indicate how you feel right now, that is at this moment. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

	NOT AT ALL	SOMEWHAT	MODERATELY SO	VERY MUCH SO
1. I feel calm.....	_____	_____	_____	_____
2. I feel secure.....	_____	_____	_____	_____
3. I am tense.....	_____	_____	_____	_____
4. I am regretful.....	_____	_____	_____	_____
5. I feel at ease.....	_____	_____	_____	_____
6. I feel upset.....	_____	_____	_____	_____
7. I am presently worrying over possible misfortunes.....	_____	_____	_____	_____
8. I feel rested.....	_____	_____	_____	_____
9. I feel anxious.....	_____	_____	_____	_____
10. I feel comfortable.....	_____	_____	_____	_____
11. I feel self-confident.....	_____	_____	_____	_____
12. I feel nervous.....	_____	_____	_____	_____
13. I am jittery.....	_____	_____	_____	_____
14. I feel high strung.....	_____	_____	_____	_____
15. I am relaxed.....	_____	_____	_____	_____
16. I feel content.....	_____	_____	_____	_____
17. I am worried.....	_____	_____	_____	_____
18. I feel over-excited and "rattled".....	_____	_____	_____	_____
19. I feel joyful.....	_____	_____	_____	_____
20. I feel pleasant.....	_____	_____	_____	_____

SELF EVALUATION QUESTIONNAIRE

STAI FORM X-2

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then mark the appropriate space to the right of the statement to indicate how you generally feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

	ALMOST NEVER	SOMETIMES	OFTEN	ALMOST ALWAYS
21. I feel pleasant.....	_____	_____	_____	_____
22. I tire quickly.....	_____	_____	_____	_____
23. I feel like crying.....	_____	_____	_____	_____
24. I wish I could be as happy as others seem to be.....	_____	_____	_____	_____
25. I am losing out on things because I can't make up my mind soon enough.....	_____	_____	_____	_____
26. I feel rested.....	_____	_____	_____	_____
27. I am "calm, cool, and collected".....	_____	_____	_____	_____
28. I feel that difficulties are piling up so that I cannot overcome them.....	_____	_____	_____	_____
29. I worry too much over something that really doesn't matter.....	_____	_____	_____	_____
30. I am happy.....	_____	_____	_____	_____
31. I am inclined to take things hard.....	_____	_____	_____	_____
32. I lack self-confidence.....	_____	_____	_____	_____
33. I feel secure.....	_____	_____	_____	_____
34. I try to avoid facing a crisis or difficulty.....	_____	_____	_____	_____
35. I feel blue.....	_____	_____	_____	_____
36. I am content.....	_____	_____	_____	_____
37. Some unimportant thought runs through my mind and bothers me.....	_____	_____	_____	_____
38. I take disappointments so keenly that I can't put them out of my mind.....	_____	_____	_____	_____
39. I am a steady person.....	_____	_____	_____	_____
40. I get in a state of tension or turmoil as I think over my recent concerns and interests.....	_____	_____	_____	_____

APPENDIX E

Introduction for running subjects

Hello, my name is Joyce Illfelder. I want to thank you for coming today.

In a few moments I'll be passing out a packet to each of you. Before I do that, however, there are a few points I want to mention.

First: I know that many people in answering questionnaires such as these develop hypotheses about what the experimenter is after. I don't want to explain any hypotheses I might have right now, because I do not want to influence your answers in any way. If you wait until everyone has turned in their questionnaires, I will be willing to sit down and talk to you as a group about my study. You don't have to wait after you are done, the choice is yours.

Second: I would like everyone in here to agree not to discuss this study with anyone, once you leave here. I will be running this study over the next few weeks and it is important that other subjects not come in here with preconceived notions as to what it is about. Will you agree to that? (Wait a moment for nods of agreement.)

(Pass out forms at this time.)

The third area I want to explain deals with the questionnaires themselves. There is a cover sheet on each packet with an ID number on it. This number also appears on the top of each subsequent sheet. This ID number is strictly to make sure that the questionnaires can be kept together in case they were to become separated. This ID number is not intended to identify you or your particular responses. The questionnaires are completely anonymous.

I do ask for some other demographic data such as year in school, age etc... which is important information for me to have, but once again it is important for understanding the composition of the group AS A WHOLE.

Each of you should have 10 pages of questionnaires in addition to the top sheet. Please make sure that you do. If you do not, please raise your hand.

Notice that there are actually four different questionnaires, so make sure that you are aware of the choices that you have in answering the questions as you move from questionnaire to questionnaire. There are specific instructions at the beginning of each- read them carefully.

BE SURE TO GIVE A RESPONSE TO EACH QUESTION ASKED. DON'T LEAVE ANY BLANKS.

Give responses about the way that you feel most of the time, unless otherwise instructed. (One page states that you should answer as you feel right now.) The questions aren't meant to be sneaky. Any questions? Okay- go ahead.

APPENDIX F

Regression Equations

Career Salience =

$$2.99 = -1.446x_1 - .857x_2 + 1.110x_1x_2 \quad (\text{Significant})$$

fear of success	attitudes towards women	combined
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State Anxiety =

$$.863 = -.525x_1 - .653x_2 + .759x_1x_2 \quad (\text{Not significant})$$

fear of success	career salience	combined
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Trait Anxiety =

$$-.451 = 1.056x_1 + .946x_2 - 1.025x_1x_2 \quad (\text{Not significant})$$

fear of success	career salience	combined
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