

THE UNIVERSITY OF CALGARY

FEAR OF SUCCESS AND
GIFTED FEMALES

By

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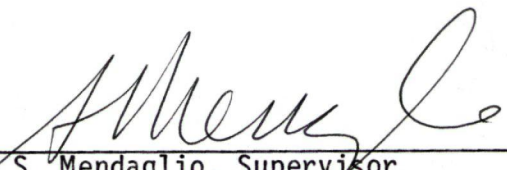
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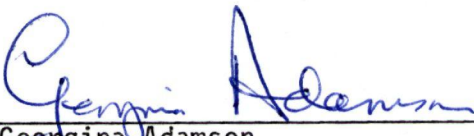
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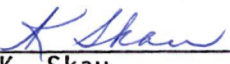
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ABSTRACT

This study was conducted to explore the relationship between fear of success and the underachievement of gifted adolescent females in public high school settings. It was hypothesized that there would be no significant relationships between age and fear of success (as measured by the Fear of Success Consequence Scale), between gender and fear of success, between achievement status and fear of success, between grade and fear of success, and between sex-role identification (as measured by the Bem Sex Role Inventory) and fear of success. It was also hypothesized that the means on the Total Fear of Success Consequence Scale scores would not differ significantly from the means on the Total scores in an earlier Ishiyama and Chabasso1 (1984) sample of non-gifted subjects.

The hypotheses were tested using a sample of 67 male and female gifted high school students. None of the null hypotheses were rejected.

Descriptive statistics indicated that the students ranged from 14-18 years, in grades 10-12, with 28 females and 39 males. Nineteen percent of the students were classified as underachieving (3 females, 10 males). Approximately 46% were classified as masculine sex-typed, 13.5% were classified as feminine sex-typed, 10.5% were classified as undifferentiated (potentially androgynous), and 30% were classified as androgynous.

Multiple regression analysis indicated that age, sex,

achievement status, sex role identification and grade were not significant in predicting a fear of success score. Fear of success scores obtained on the gifted students sampled did not differ significantly from scores obtained by non-gifted students. The findings of this study do not support the descriptive literature which indicates fear of success as a reasonable explanation for the underachievement of the gifted adolescent female.

Recommendations were made regarding the need for empirical research to more closely examine the underachievement-fear of success relationship in terms of other possible interrelated variables and with comparison groups including the younger gifted student and non-gifted. Due to the exploratory nature of the study, it was recommended that substantiative and confirmatory research be conducted in order to provide more information about the relationship between fear of success and the gifted female.

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CHAPTER ONE

INTRODUCTION

Statement of the Problem

Horner's (1969a, 1969b, 1972) work, and in particular her formulation of the motive to avoid success was an attempt to span mathematical models of achievement behaviour and the research pointing out the inconsistency of this theory for females. Horner described the motive to avoid success as a predisposition of females to avoid success because of its negative consequences such as loss of femininity and social rejection.

The motive to avoid success or Fear of Success (FOS) was typical of females more than males because of the cultural negative perceptions associated with females achieving success (Horner, 1972). Further, high ability, high achieving females were more likely to fear success (Gjesme, 1973; Horner, 1972; Lavich & Lanier, 1974) by virtue of their capability to reach success. The motive to avoid success was more likely to be aroused in interpersonal competition against males (Horner, 1972; Makosky, 1976). The arousal of the motive could be anticipated in any context in which a female regarded success as sex-role inappropriate (Horner, 1972) thus making the traditionally sex-typed female most vulnerable (Cano, Solomon, & Holmes, 1984; Forbes & King, 1983; Kearny, 1972). Finally, as the motive to avoid success was conceptualized as a stable personality characteristic established early in life, the arousal of the motive would increase with age in conjunction with

the socialization process (Dalisner, 1973; Walton, 1975).

The motive to avoid success has been subjected to critical scrutiny, often with contradictory and inconsistent results. Some researchers have reported an absence of sex differences in terms of exhibition of the motive (Hawkins & Pingee, 1978; Levin, 1979; Tresemer, 1976). Tresemer (1976) and Zuckerman and Wheeler (1975) found no evidence of a link between FOS and high ability or high achievement. Research on the effects of fear of success on performance is inconsistent.

Garske (1975) found better performance by FOS females when competing against males. Other research has pointed to better performance by high FOS females on masculine tasks than feminine tasks (Sorrentino & Short, 1974). The research examining the relationship between sex-role identification and the motive to avoid success is inconsistent. Some writers have reported data which shows a nontraditional orientation to be related to high FOS (Heilbrum, Kleemier, & Piccola, 1974; O'Leary & Hammack, 1975) or no relationship between sex-role identification and the motive (Depner & O'Leary, 1976; Zuckerman & Wheeler, 1975). Contradictory findings on the age factor have been reported, with researchers claiming a reverse relationship (Ishiyama & Chabassol, 1985; Monahan, Kuhn, & Shaver, 1974) or no relationship (Jackaway, 1974; Romer, 1975).

Horner's measurement of the motive to avoid success has been criticized for its overspecificity in measured context (Griffore, 1977; Zuckerman & Wheeler, 1975), its overgeneralized implications (Ishiyama & Chabassol, 1985) and its apparent relationship to fear

of failure (Shaver, 1976).

The implications of the motive to avoid success for the female has been embraced by researchers, educators and counsellors working with the gifted female. The motive to avoid success has been brought forth in the literature as a reasonable explanation for underachievement of some gifted females. Fear of success has been described as a normal developmental crisis for gifted females (Blackburn & Erickson, 1986), a specific internal barrier to the career development of females (Kerr, 1985), and a unique achievement concern of the gifted female (Wolfe, 1979).

The empirical evidence for the gifted female to fear success has been limited to one experimental study. Hollinger and Fleming (1984) found that fifty of two hundred and eighty-four gifted females showed evidence of the motive to avoid success. These researchers noted that the gifted female who indicated low achievement motivation were less likely to reflect a motive to avoid success than females who indicated high achievement motivation.

The virtual absence of empirical enquiry examining the fear of success - underachievement of gifted female equation leaves the issues in this equation unclear. Based on the virtual absence of empirical support for the claims made regarding FOS and its presumed impact on gifted females, it is premature to draw a relationship between the two. This study attempted to add some empirical validity to the relationship.

Purpose of the Study

The purpose of this study is to explore the nature and extent

of the relationship between fear of success and the underachievement of gifted adolescent females.

This study addressed the following research questions:

1. Do gifted females exhibit significantly more fear of success than gifted males?
2. Is there a relationship between giftedness, academic underachievement, and fear of success?
3. Is sex role orientation important in predicting fear of success?
4. To what extent do age and grade make a difference in a fear of success score?
5. Is there a difference in Fear of Success scores between gifted and non-gifted subjects?

CHAPTER TWO

LITERATURE REVIEW

A computer-assisted search of the literature was conducted using the Dialog database system. The psychinfo files were searched back to 1972 using the major headings of Fear of Success, Gifted, and Motive to Avoid Success.

A relatively large body of theoretical and empirical literature was found to exist in the fear of success and motive to avoid success areas. A relatively large body of theoretical and descriptive literature was found to exist for the gifted heading, with a considerably smaller body of empirical literature under the gifted heading. Most of the literature for the fear of success and motive to avoid success heading were concentrated in the 1970's.

The objective of this literature review was to examine the current state of knowledge as it relates to fear of success in gifted females and to find a theoretical and empirical framework from which this study may be examined and discussed. A theoretical framework is presented for each of the two areas (Fear of success, gifted females) and then the empirical literature is presented and discussed as it pertains to these areas.

Fear of Success

In 1953, McClelland, Atkinson, Clark and Lewell published The Achievement Motive which conceptualized achievement as a motivational need determined by the strength, probability and incentive of that need. These three factors presumably combined to

determine the tendency to achieve. However, critics pointed out that the development and validation of the achievement measures had been carried out on primarily male samples. Furthermore, the experimental manipulations of achievement arousal included tests that were characteristically masculine, such as mathematics problems (Denmark, Tangri & McCandless, 1978). The few achievement studies that did include female subjects generated inconsistent and puzzling findings when compared to the male subjects (Kaufman & Richardson, 1982). Indeed, it was noted that "one of the early and consistent findings that grew out of the early research was that females responded in a way that could not be explained by the theory" (Franken, 1982, p. 349). Females appeared to hold expectations of achievement situations and values of success and failure that were different from males.

The differential experiencing of achievement and its consequences for females prompted Matina Horner (1969a) to postulate a "motive to avoid success" or fear of success (FOS) as a critical determinant of females' achievement behaviour.

The motive to avoid success was conceptualized as a psychological barrier to achievement in women (Horner, 1969a). Horner (1969b, p. 38) described the process as:

"A bright woman is caught in a double bind. In testing and other achievement oriented situations, she worries not only about failure but also about success. If she fails, she is not living up to her own standards of performance. If she succeeds, she is not living up to societal expectations about

the female role."

In Horner's theory, the motive consisted of a "predisposition for women to become anxious about achieving success because they expect negative consequences...as a result of succeeding" (1972, p. 159). Thus, the anticipated negative consequences and resultant anxiety would discourage females from achieving their desired success. Horner (1972) maintained that females high in the motive to avoid success would function to "disguise their abilities, and withdraw from the mainstream of thought, activism, and achievement in our society" (p. 173).

Couched within the context of the expectancy-value model of motivation, the FOS construct rested upon the assumption that the strength of the motive should be a function of the probability of success (expectancy) and the consequences of success (value). According to this theory, anxiety is aroused when the individual expects the consequences of the action to be negative. The anxiety further functions to inhibit the action that is expected to have negative consequences. The resulting inhibitory anxiety will produce a decrease in performance (Horner, 1974).

Horner's (1969a, 1969b, 1972) early formulations of the motive to avoid success contained several theoretical assumptions and hypotheses:

1. Motive to avoid success is a stable characteristic of the personality acquired early in life in conjunction with sex-role standards (Horner, 1974).
2. The motive to avoid success is significantly more characteristic of women than of men because successful competitive achievement is consistent with masculinity, but antagonistic towards femininity.

3. The motive to avoid success is significantly more characteristic of the high achieving, high ability woman. This assumption rested on Horner's (1972) premise that success is more meaningful and real to these particular types of women.
4. The strength of the motive to avoid success is presumed to affect performance only in situations in which it is aroused. Situations that arouse the motive to avoid success depend on the expectancies of negative consequences following success. It is presumed that these negative consequence situations for females include: competitive achievement situations where evaluation of intellectual and leadership ability occurs, where evaluation against a competitor's performance occurs, and where interpersonal competition against a male competitor occurs.
5. The arousal or minimization of the motive to avoid success is related to some stable or economic factors, such as parental attitudes, attitudes of male peers, and socioeconomic status.
6. The response of a female to a measure of FOS will be consistent with their sex-role orientation. The motive to avoid success might be anticipated in any context in which a female regards success as sex-role inappropriate.
7. Two outcomes of the motive to avoid success are the thwarting of achievement strivings and feelings of frustration, hostility, aggression, and confusion.

To test her theoretical formulations, Horner (1969a) added an additional verbal lead to the Standard Thematic Apperceptive Test (TAT) which described a high level of accomplishment in a mixed-sex competitive achievement situation. Horner (1972) reasoned that negative imagery in the given achievement cue was indicative of a tendency to avoid the type of achievement depicted in the cue. The females received the cue, "after first term finals, Anne finds herself at the top of her medical school class". The male subjects received the cue, "after first term finals, John finds himself at the top of his medical school class" (Horner, 1972). The subjects' stories to these cues were evaluated using a present-absent system to score fear of success imagery. Horner maintained that fear of success was scored as present if the subjects' stories contained:

negative consequences because of success, or anticipation of, negative affect because of success, instrumental activity away from success (leaving the job), direct expressions of conflict about success, denial of the cue situation or bizarre or unrealistic responses to the cue situation.

Horner's (1969) formulation of the motive to avoid success received much attention in terms of stimulating research concerning the achievement experience of the female. Essentially, three main bodies of research emerged: studies of the effects of FOS on performance, studies of the theoretical conception of FOS in terms of the actual measure, and studies of the moderating variables or subject characteristics affecting the amount and type of FOS imagery.

Fear of Success and Performance

In her theoretical formulations, Horner (1969, 1972) maintained that the motive to avoid success would be aroused in females where competitive achievements against males with evaluation of competence to perform occurred. To test this assumption, Horner (1969) compared the level of performance between 88 males and 90 females on a number of achievement tasks in two situations. In one situation, the subjects competed on the achievement tasks against a member of the opposite sex; in the other, the subject was alone in the room on the same tasks. In this latter non-competitive condition, the only competition involved was with the task and one's internal standard of excellence.

Horner's (1969) results showed that females high in the motive

to avoid success performed better in the non-competitive than in the competitive condition. The females in the mixed-sex competitive condition who showed the most performance decrements were those females who had scored high on the motive to avoid success. Two-thirds of the male subjects performed best under the competitive condition. Other studies of the effects of FOS on performance have yielded inconsistent results. Makosky (1976) found that high FOS women performed best on a feminine task when competing against a woman, and low FOS women performed best when competing against a male on a masculine task. Makosky concluded that women perform best on tasks and against competitors who are perceived to be compatible with the women's sex-role performance for achievement. Thus, all of the women performed competitively when the conditions were appropriate (Makosky, 1976). Morgan and Mausner (1973) found that high school girls were more likely than high school boys to show performance decrements when working in mixed-sex pairs, however, this sex difference was independent of FOS imagery.

Two studies reported findings opposite to those of Horner's. Sorrentino and Short (1974) found that females performed better on masculine tasks than on feminine tasks. This difference was greatest for those high in FOS imagery. Garske (1975) reported that females performed better when they were competing against a male on a task typically considered masculine, than when they were competing alone. This study thus failed to produce Horner's (1969) predicted performance decrement expected to occur in a situation where high FOS women received negative feedback from a male competitor when

performing a masculine task. Trésemmer (1976) maintains that the evidence for support of Horner's performance hypotheses remains mixed.

The Theory and Measure

Horner's adaptation of the TAT to measure the individual fluctuations in the motive to avoid success was initially validated in a study with 88 males and 90 females. In response to the successful "John" cue, over 90% of the males wrote stories showing "increased striving, confidence in the future, and a belief that this success would be instrumental to fulfilling other goals - such as providing a secure and happy home for some girl" (Horner, 1972, p. 162). Approximately 8% of the males showed evidence of the motive to avoid success in their stories. The revised TAT measure showed that 65% of the females responded to the successful "Anne" cue with stories containing negative consequences. Horner (1972, p. 162) concluded that "Unusual excellence in women was clearly associated for them with the loss of femininity, social rejection, personal or societal destruction, or some combination of the above". Horner concluded that females showed significantly more evidence of the motive to avoid success than did the males, therefore supporting the fundamental assumptions of her theory and the validity of the TAT in measuring the construct.

In a replication of this study, Hoffman (1974) tested 245 subjects with the original TAT measure and the Anne and John cues used by Horner. Hoffman's data supported Horner's data with the frequency of females showing motive to avoid success at 65%, just as

had been found in the earlier study. There were however dramatic differences from the earlier results with respect to the males. In Hoffman's study, the motive to avoid success was indicated in 77% of the males, as compared to Horner's 8%. Hoffman's explanation for this discrepancy rested in the themes present in the male's stories which reflected an increasing ambivalence by males towards academic and career success.

Although the construct initially appeared to resolve much of the controversy surrounding the achievement motivation of females, problems with the theory and measure have been pointed out by numerous researchers.

The considerable variability in the incidence of FOS imagery has raised serious questions regarding the construct validity of the measure in two areas.

Firstly, Horner's TAT-type method has been criticized by many researchers for its over-specificity in measured context (Griffore, 1977; Sadd, Lenauer, Shaver, & Dunivant, 1978; Zuckerman & Wheeler, 1975). Sadd, et al. (1978) maintained that "medical school" was not synonymous with success in general and the cue thus overspecified the context to view success. Sadd, et al. (1978) concluded that the medical school cues were tapping specific attitudes about a male or female in medical school, not necessarily a general personality trait such as FOS. Paludi (1979) found that the level of success achieved by the cue character was also critically important to the evaluation of FOS imagery. Lentz (1982) reported evidence that indicated no significant differences in FOS due to different

performance situations. However, there were differences when the level of performance situations was manipulated. Criticisms concerning the occupation in which success was achieved have also been levelled at the TAT-cue (Feather & Simon, 1973; Paludi, 1984). Feather and Simon (1973) observed that success at an occupation is more highly valued by subjects when that success is consistent with societal expectations about the sex role. Indeed, it was found that men too projected negative imagery towards a successful male cue character when the cue character's success occurred in a nontraditional area such as nursing (Feather & Simon, 1973). Breedlove and Cicarelli (1974) found that significantly more women projected FOS imagery onto a cue depicting "Anne" at the top of her class in graduate elementary education. Alper (1974) found less FOS when Anne found herself at the top of her "nursing school" class than when she was the top of her medical school class.

Gravenkemper and Paludi (1983) maintained that Horner's (1969) Anne and John cue implied external attributional facts: "finds her/himself" as if it came as an unexpected surprise, such as luck.

When subjects were allowed to define success for themselves the researchers found that the subjects exhibited relatively little FOS imagery and that there were no significant sex differences between the male and female subjects. Gravenkemper and Paludi (1983) concluded that FOS was situationally determined, not deepseated in women or men's personalities..

Secondly, the motive to avoid success has been hypothesized to be conceptually similar to fear of failure (Shaver, 1976). A

supporting study found significant positive correlations between FOS and fear of failure in both neutral and achievement arousal situations for both males and females (Jackaway & Teevan, 1976). These researchers hypothesized that for women whose affiliative or social approval and achievement needs are interrelated, fear of success closely correlates with fear of failure since "fear of rejection thus becomes tantamount to fear of failure" (Jackaway & Teevan, 1976, p. 283). Mulig, Haggerty, Carballosa, Cinnick and Madden (1985) indicated that FOS was distinguishable because it was a sex-role related construct whereas fear of failure was more a gender-role related construct.

The validity, reliability, and methodological and conceptual problems with Horner's FOS measure have prompted other researchers to modify and extend the original TAT-type projective test (Good & Good, 1973; Ishiyama & Chabassol, 1984; Sadd, et al., 1978; Zuckerman & Allison, 1976). Most of these tests are designed to tap the FOS motive with either true false questions, semantic differential items, interview questions or situation specific items. However, these alternative measures are under scrutiny, chiefly due to a lack of validity data (Paludi, 1984), the apparent relationships to fear of failure (Shaver, 1976), and no direct evidence that they are necessarily measuring the construct described by Horner (Chabassol & Ishiyama, 1983).

Studies of moderator variables or subject characteristics that affect the type and amount of FOS imagery dominated the FOS research after Horner's (1969, 1972) original formulations. Research has

correlated FOS with gender, age, sex-role orientation, ability, and achievement.

Gender

Horner (1969) originally claimed that females were more suspect to fear success because success and competitive achievement was more compatible with the male experience. Tresemer (1976) concluded, however, that the hypothesis that there is a gender difference in FOS was not supported after reviewing fifty-six samples of research. Tresemer (1976, p. 233) added "generalizations about gender differences are a convenient fiction for psychologists and subject in the service of gross categorizations". Other studies have also found an absence of gender differences for FOS imagery (Hawkins & Pingee, 1978; Levin, 1979; Romer, 1975). However Horner's gender-difference hypothesis have received support from other researchers (Feather & Simon, 1973; Good & Good, 1973; Monahan, Kuhn & Shaver, 1974). In contrast, Morgan and Mausner (1973) reported that males wrote significantly more FOS stories than females.

Age

Horner (1969) theorized that FOS was acquired early in life and showed an increase with the age of the female. Dalisner (1973) claimed that FOS was more prevalent among adolescent females and this relationship appeared to increase with age as the females became increasingly exposed to the socialization process. Walton (1975) reported similar findings, however, there have been contradictory findings on the age factor (Brown, Jennings & Vanick, 1974; Jackaway, 1974; Romer, 1975). Ishiyama and Chabassol (1985)

found a higher FOS with their FOS scale in early adolescents than mid-adolescents, however, Monahan, et al. (1974) found that FOS decreased with age in both sexes among eleven and sixteen year old children.

Sex-Role Identification

FOS has been hypothetically related to a more traditional sex-role orientation in women, since success in a masculine-dominated field would be more conflictual (Horner, 1972). Horner (1972) reported that an earlier study revealed that over eighty-eight percent of the fifty-nine girls high in fear of success were majoring in the humanities in college, whereas fifty-six per cent of the thirty-one subjects low in anxiety about success were concentrating in the less traditional natural sciences like mathematics and chemistry.

Some research has been supportive of this formulation. Forbes and King (1983) examined the relationship between fear of success and sex-role in college males and females. Their data showed that forty-four men and eighty-three women, classified as masculine sex-typed, had lower fear of success scores than those subjects classified as feminine sex-typed or undifferentiated. Kearny (1982) found high masculinity to be associated with low FOS. Mulig, et al. (1985) found FOS to be a sex-role-related construct. Makosky (1976) reported a relationship between FOS and traditional sex-role orientation in terms of reported attitudes toward marriage, family, and professional careers. A study by Cano, Solomon and Holmes (1984) revealed that androgynous and masculine individuals reported

less fear of success than the feminine or undifferentiated individuals, regardless of sex. They further reported that fear of success scores were related more to the absence of masculine traits than to the presence of feminine traits. Gayton, Mavu, Barnes, Oxman, and Bassett (1978) conducted research that found androgynous and sex-reversed females to manifest significantly less FOS than either sex-typed or indeterminate females. In a series of studies, Anderson (1978) made comparisons between self descriptions of FOS college women with self descriptions of non FOS women. Her results indicated that females who exhibited FOS were career-oriented but this orientation was primarily in a traditional female occupation. Further, these women were less concerned about making a major contribution to their field. Females not exhibiting FOS imagery were more likely to have mothers working in nontraditional female occupations with themselves choosing nontraditional female occupations.

This sex-role identification issue, in terms of its relationship to FOS has been marked however by unreliable results and sharp theoretical debate (Forbes & King, 1983). O'Leary and Hammack (1975) reported that FOS was not manifested by women in response to cues depicting success that was inconsistent with their sex-role orientation. Heilbrum, et al. (1974) revealed data indicating a high FOS score to be related to a nontraditional sex-role orientation. Zuckerman and Wheeler (1975) presented seven investigations which failed to find that FOS and sex-role orientation co-varied. Depner and O'Leary (1976) supported these

results by indicating that their study failed to find any empirical relationship between FOS and sex-role orientation. Finally, in a comprehensive review of the accumulated research, Tresemer (1976) concluded that FOS showed no relationship to sex-role identification.

Ability

Horner (1972) proposed that high ability or unusual excellence in females was more likely to be associated with a higher fear of success because success was more attainable and therefore, more real. Horner supported her theoretical proposition with a study in which it was found that fear of success imagery was more prevalent among honor students than non-honor students. Lavich and Lanier (1974) found fear of success to be more prevalent in the high achieving, high ability, white adolescent female. Gjesme (1973) found that in a traditional classroom in which high ability was heterogeneous, only the girls of high ability had their achievement related motives aroused. A contradictory finding was reported by Williams and King (1976) in an examination of the relation between grade point averages and fear of success. Their results showed a non-significant correlation between ability and fear of success, however these researchers concluded that G.P.A. is a cautious and contradictory measure of ability.

Generally, the literature does not appear to concentrate on inclusion of high ability as a specific independent variable in fear of success measures, however most researchers include a type of high ability criterion as a means for selection of subjects. O'Leary and

Hammack (1975) selected subjects with cumulative GPA's of 3.0 or over to test sex-role orientation and fear of success. Some writers have used college enrollment as indicative of high ability (Hoffman, 1974; Makosky, 1976). Tresemer adds that other measures of ability in research include SAT scores, honors status, IQ tests, school track records, performance on verbal achievement tasks, and plans for college and career goals. Tresemer (1977) points out that contradictory evidence on the ability correlate may be the result of the relative ambiguity in defining high ability.

Achievement

In her original theoretical formulations, Horner (1972) described the high ability, achievement oriented female who aspired to and/or was capable of achieving success as the most likely to show FOS imagery. Lavich and Lanier (1974) supported the achieving hypothesis when they obtained data that indicated FOS to be more prevalent among high achieving adolescents. Eme and Laurence (1976) measured the relationship between FOS and academic underachievers in a high school population. Academic underachievers were identified as those who achieved an IQ score in the upper 25% of the population and who had earned a grade average below the mean of the class he was in. Eme and Laurence found no significant relationship between FOS and academic underachievement. Tresemer (1976) concluded that FOS was not related to IQ or performance in an achievement task in a neutral setting. This conclusion was supported by Zuckerman and Wheeler (1975) who suggested that fear of success was not related to direct or indirect measures of achievement

motivation.

Fear of Success and the Gifted Female

Most researchers agree that the gifted female faces unique achievement issues which are different from that of their gifted male counterparts. Prevalent in the literature, is the concern that the sex-role conflicts a gifted female faces poses major obstacles to her potential, resulting in her relative underachievement and withdrawal from eminence. Kerr (1985, p. 30) described the underachievement of the gifted female as "...declining career aspirations, declining intellectual achievements, and disappointing career achievements." Reis (1987, p. 83) noted the impact of this pattern, "the fact remains that in all professional fields and occupations, men overwhelmingly surpass women in both the professional accomplishments they achieve and the financial benefits they reap".

Researchers have noted the dynamics the sex-role conflicts faced by the gifted female in terms of her reconciliation of academic interests into sex-role appropriate areas of excellence and occupation (Schwartz, 1980). Morse and Bruch (1970) considered the sex-typing of social roles as one of the major contributing causes of underachievement in gifted women. These writers maintained that accomplishments by gifted men were considered favorably, whereas similar achievements by the gifted female were met with disapproval. Wolleat (1979) went on to suggest that a gifted female may experience a conflict between the traditional role and the emergent female role while Rodenstein and Glickauf-Hughes (1979) placed the

conflict within the marriage/work roles. In a developmental look at the sex-role conflicts facing the gifted female, Rodenstein, Pflieger and Colangelo (1977) noted that the gifted female experienced less credibility in academic and professional roles, less exposure to same-sexed models, and even overt discrimination.

These patterns lead to sex-role conflict in terms of cultural expectations. Higham and Navarre (1984) coined the term, no-win situation, to describe the potential of the gifted female to achieve. On one hand, she is urged to use her giftedness by achieving academic and career success; however she receives mixed messages telling her, that to do so, would be unfeminine and unacceptable.

Horner (1969, 1972) placed these sex-role conflicts of the gifted females squarely in the context of the motive to avoid success. According to her theory, unusual excellence in females resulted in a fear of success as this female was most likely to anticipate the negative consequences of achieving in a male dominated field. The effects of this anticipation would be a withdrawal from achievement, resulting in anxiety and stress. The literature frequently describes fear of success as a specific achievement barrier for the gifted female in terms of sex-role conflict.

Blackburn and Erickson (1986) described the motive to avoid success as a predictable developmental crisis for the gifted female in relation to her academic and eventual occupational success. These writers noted that the cultural stereotypes operating in

society serve to redefine success for the gifted female traditional areas such as love, marriage, approval, and popularity. Apparently, this conflict between achievement, success and culturally accepted feminine success then serves to make career and academic achievement a "negative, painful, rejecting, and isolating experience" (p. 553). Kerr (1985) thought that fear of success should be conceived of as a specific, internal barrier to the career and achievement development of the gifted female. Other than sex-role stereotyping and expectancy conflicts, Schwartz (1980) maintained that "the third barrier or stereotype confronting gifted females is the concept that they are afraid of success." Fear of success has been conceptualized by Khatena (1979) as a difficulty for the gifted female as she "has to resolve the conflict of her dual tendencies to achieve and act in a nurturant role" (p. 230). Higham and Navarre (1984) noted that a female received masculine, negative labels as she achieved academic and career success, resulting in anxiety and stress.

A gifted female with a fear of success motive is "expected to function below her potential" (Rodenstein, et al., 1977) as the cultural expectations she faces will conflict with her academic and career achievement. Fox, Tobin, and Brody (1981) developed a study which indicated that this conflict developed as early as junior high school. Results indicated that ninety-eight percent of the gifted males expected to always have a full-time career, whereas only forty-six percent of the girls in the sample expected the same. In a longitudinal study of gifted students, Card, Steel, and Abeles

(1980) found that by age twenty-nine, gifted males had more education, higher income, higher job prestige, and higher job satisfaction than the females, even though the two groups had equal potential. Initially, at age twenty-three the gifted females had surpassed the gifted males on these variables. Card, et al. (1980) concluded that this drop in achievement was partially due to the difficulty in combining family and career goals. In a follow-up study of Presidential Scholars, Kaufman (1981) indicated that a gifted girl as an adolescent already had career goals only moderate in status and prestige when compared to their gifted male counterparts. Although not specifically identifying fear of success, Hollinger and Fleming (1984) cited evidence to indicate that the female adolescent may choose to avoid achievement in mathematics "so as to protect her feminine self-image" (p. 135). Reis (1987) found evidence through counselling work that the adolescent gifted female held back from appearing too knowledgeable in academic work for fear of being perceived as "too smart" by her peers and prospective boyfriends. Reis concluded that "fear of success may lead to a change in confidence of one's ability that can have devastating effects if it occurs during college or graduate school" (p. 86).

Empirically, the relationship between fear of success and giftedness is limited to one known study to this date. Hollinger and Fleming (1984) examined achievement motivation, non-assertiveness, low self-esteem and fear of success as interrelated internal barriers among gifted and talented adolescents.

The interrelationships between these barriers were further examined in respect of their correlated personality attributes of instrumentality, expressiveness, orientation to work and mastery, and personal unconcern. Personal unconcern was included as it "may be a primary personality concomitant of those adolescents not evidencing fear of success despite their apparent success" (Hollinger & Fleming, 1984, p. 135). Hollinger and Fleming (1984) selected 284 identified gifted female adolescents and administered a comprehensive career battery with three scales measuring achievement motivation, non-assertiveness and low self-esteem. Students were identified as underachievers based on a discrepancy between potential (I.Q.) and obtained grades. Hollinger and Fleming's results showed that 50 of the 284 adolescents showed fear of success imagery, while 83 showed no evidence of any internal achievement obstacles (non-assertiveness, underachievement, social competence, social self-esteem and fear of success). The female adolescents who showed fear of success only differed from the non-fear of success groups in terms of the fear of success imagery. That is, there was no relationship between the fear of success imagery and the absence of the other career-linked internal barriers. The researchers found that the FOS adolescents showed the highest orientation towards work and mastery whereas the underachieving group showed the lowest orientation towards work and mastery. This may illuminate the phenomenon that work and mastery enhances the probability of success while also enhancing the fear of the consequences perceived to be associated with achieving success. Consistent with Horner's

hypothesis that one fears success when success is most probable, the gifted females who indicated low achievement motivation were the second least likely to reflect a fear of success motive. The noted relationship between fear of success and personal unconcern failed to show a significant difference. Finally, the multiple internal barrier adolescents were characterized by high fear of success imagery comparable to that of the fear of success diagnostic group despite the unlikelihood of these adolescents achieving success.

Hollinger and Fleming (1984) concluded that internal barriers to achievement cannot be limited to a singular focus, but rather researched within a multidimensional focus which examines the correlation and independence of those variables impacting on the achievement process of the gifted female.

Summary and Conclusions

Thus, in summary, the theoretical and empirical literature dealing with fear of success and fear of success and the gifted female was selectively reviewed. Horner's theory of the motive to avoid success was overviewed and used as the theoretical basis from which literature dealing with giftedness and fear of success was perceived.

Horner conceived of the motive to avoid success as an internal predisposition to fear success because of the negative consequences perceived to be associated with success. According to the theory, this motive would be more likely to be elicited in the high achieving, high ability, traditionally sex-typed female who was in interpersonal competition (career-wise, academically) with males.

Fear of success is also correlated with increasing age as the female became more attuned to the culturally acceptable sex-role definitions of the feminine behaviour. The motive to avoid success has been subjected to intense conceptual, methodological and empirical review. Contradictory and inconsistent research has been reported on performance factors, the theoretical conception of the motive, and the individual subject characteristics of age, gender, achievement status, ability, and sex-role orientation. It was concluded that the research has raised serious questions as to whether or not the motive to avoid success actually exists, how it is manifested in terms of individual and behavioural differences, and whether or not the motive is being tapped by the various objective and projective measures.

The literature dealing with the gifted female and the fear of success motive showed that many writers view the motive as a serious obstacle to the achievement of gifted young females. The literature revealed a description of gifted females' underachievement and withdrawal from success, however there existed only one study that empirically examined the relationship. In this study, the presence of fear of success was not found to be related to the absence of underachievement, non-assertiveness, and low self-esteem.

It is evident that writers in the gifted field show an apparent interest in fear of success and the gifted female. Although the research links fear of success with the underachievement of gifted young females, it remains unclear as to the effects that age, gender, sex-role orientation and grade take in this relationship.

The virtual absence of empirical evidence and the empirical difficulties with Horner's thesis warranted further investigation. Thus, it was concluded that an exploratory study investigating the relationship between these subject variables, fear of success and the underachievement of gifted female, was justified.

CHAPTER THREE

METHODOLOGY

Setting

This study was conducted with male and female gifted high school students registered in four public high schools in Calgary. A consultation with the Education Assistance Service for Gifted and Talented Children (EAS/G) determined that these schools hold the largest number of gifted students enrolled in the city. Giftedness is defined as "Gifted and talented children are those who can be identified by personnel, professionally qualified in education for the Gifted and Talented, as having superior general ability and/or creative aptitudes or talents. Due to demonstrated or potential, exceptional ability, these students require special educational provisions based upon their exceptional needs" (Calgary Board of Education, 1985).

Subjects

Principals from these four high schools were contacted with a letter of intent (see Appendix A) and a follow-up telephone call. After securing the school's cooperation, all gifted students in that school were given a letter of introduction explaining the intent (see Appendix B) of the study and parental consent forms (see Appendix C) to sign. Returned parental consent forms totalled 67, from 95 given, with 39 males and 28 females, ranging from age 14 to 18 years.

Demographic Data

Demographic data on gender, age, and grade levels were collected and presented in Table 1. Gender has been found to be an important predictor of the fear of success motive (Horner, 1969a, 1972; Ishiyama & Chabassol, 1985) in terms of females exhibiting more evidence of the motive than males.

Ishiyama and Chabassol (1985) found that a student's age and grade level had important implications for influencing evidence of a fear of success score. The demographic data were used in the analysis of results of the predictive variables.

Achievement Status

Following examples of achievement status classification in the literature (Gjesme, 1973; Hollinger & Fleming, 1984), grades were used in this study to determine achievement status. Each student's most recent marks in Mathematics and English served as the criteria for achievement in school performance. Mathematics and English were selected because they both constitute compulsory courses in high school, therefore ensuring a uniform evaluation of achievement status. Because of the contention that Mathematics and English are traditional areas of achievement for males and females respectively (Higham & Navarre, 1984), the average mark was calculated for the females and for the males for each subject area. The mean marks for each subject and sex are presented in Table 2. Students were then coded as either achieving or underachieving (Table 1) based on the following criteria:

1. Achieving females are those whose grades in both Mathematics

Table 1

Distribution of Age, Gender, Grade, and Underachievers
n=67

Age	Gender	Grades			Underachieving
		10	11	12	
14	Male	1	0	0	0
	Female	0	0	0	0
15	Male	10	2	0	2
	Female	6	0	0	0
16	Male	2	10	1	4
	Female	1	14	0	1
17	Male	0	2	6	3
	Female	0	1	5	2
18	Male	0	0	6	1
	Female	0	0	0	0

N = 20 N = 29 N = 18

Table 2

Mean Grades of Students by Sex and Subject

	Males	Females	Total
Mean English Grade	$x = 72.0\%$	$x = 79.5\%$	75.75%
Mean Mathematics Grade	$x = 73.5\%$	$x = 66.0\%$	69.75%

and English is within ± 5 marks or above the mean grade for females.

2. Achieving males are those whose grades in both Mathematics and English is within ± 5 marks or above the mean grades for males in these subjects.
3. Underachieving females are those whose grades in both Mathematics and English are less than the mean grades for females in these subjects.
4. Underachieving males are those whose grades in both Mathematics and English are less than the mean grades for males in these subjects.

In the event that a student's marks in English and Mathematics differed significantly (achieving in Math but not in English, for example), that student's marks will be averaged and evaluated against the combined average mark in Mathematics and English for all students following the same criteria system as above. (See Table 2).

Instruments

The Fear of Success Consequence Scale and Bem Sex Role Inventory were used in data collection. Demographic data were also collected.

Bem Sex Role Inventory

Description

The Bem Sex Role Inventory (BSRI) is a 60 item inventory designed to assess the sex role of the respondent (Bem, 1974).

The BSRI is theoretically based on the conception that a

traditionally sex-typed person is one who is attentive to culturally sex-appropriate behaviour and further who will use the culturally defined behaviour as an ideal standard against which his/her behaviour is to be evaluated (Bem, 1974).

The 60 items of the inventory are personality characteristics - twenty of which are stereotypically feminine, twenty of which are stereotypically masculine, and twenty more which serve as filler items.

The BSRI treats masculinity and femininity as two separate dimensions which allows the respondent to indicate whether he or she is high on both dimensions (therefore, androgynous), low on one but not the other (either feminine or masculine) or low on both (undifferentiated).

Bem (1974) views a masculine sex role as representing an endorsement of masculine personality characteristics as self-descriptive with the simultaneous rejection of feminine attributes. Accordingly, a feminine sex typing indicates that the individual endorses feminine personality characteristics as self-descriptive while simultaneously rejecting masculine attributes. Both types of sex-typed individuals are motivated to keep their behaviour consistent with cultural definitions of masculinity (if masculine sex-typed) or femininity (if feminine sex-typed) by endorsing and selecting behaviours that will be congruent with the definition and rejection behaviours that violate the definition (Bem, 1981). In contrast, the androgynous individual is less sensitive to these cultural definitions and integrates the

feminine and masculine characteristics into a less regulated and adaptable blend, allowing him or her to be caring yet analytical for example.

Administration

The BSRI is a self-administered paper and pencil instrument, taking a maximum of 15 minutes to complete. The subject is asked to indicate on a seven-point scale how well each of the 60 personality traits describes him/her. It is comprehensible to most high school students and can be given to large groups as well as individuals. A short form BSRI was developed (Bem, 1981) for ease of administration and reliability studies, however it is recommended that the long form be used for its superior prediction ability.

The average of the student's ratings of the feminine and masculine adjectives are taken as the (a) Femininity and (b) Masculinity scores. These scores are then converted to standard scores from which a difference score is then calculated. High scores (either positive or negative) indicate a tendency to be strongly sex-typed (or sex-reversed) and with positive scores indicating femininity and negative scores indicating masculinity. A median split method, based on a normative sample (Bem, 1981), is then used to classify each subject on the basis on each subject's raw scores with high-high indicating androgyny, low-low indicating undifferentiability, and high-low indicating either masculinity or femininity.

The BSRI was selected for use in this study because it is well supported in the literature as to its reliability and validity and

because of its ease of administration.

Reliability and Validity

Bem (1974, 1975, 1981) conducted various psychometric analyses on the long form BSRI which showed that the BSRI had both high reliability and validity as a measure of sex-role identification. Internal consistency analyses were carried out with two separate samples of subjects, in 1973 with 279 females and 444 males (Bem, 1974), and in 1978 with 340 females and 476 males (Bem, 1981). Coefficient alphas conducted for the Masculinity Score, Femininity Score and the Femininity minus-Masculinity Score indicated coefficients (computed separately for males and females) for Sample One to be: Masculinity, α .86 (males), α .87 (females); Femininity, α .78 (males), α .75 (females); and Difference, α .84 (males), α .78 (females). For the 1978 sample, two coefficients were Masculinity, α .86 (males), α .87 (females); Femininity, α .78 (males), α .78 (females); Difference, α .82 (males), α .82 (females).

Test-retest reliability for the BSRI was determined from data from a sample $n=56$, administered one month after the first. Product-moment correlations were computed with test-retest reliability coefficients as follows: Masculinity, α .76 (males), α .94 (females); Femininity, α .89 (males), α .82 (females); Difference, α .86 (males), α .88 (females).

Bem (1981) showed that the relationship between the Masculinity and Femininity scores to be logically and empirically independent with correlations between the two dimensions for both the 1973 and

1979 samples to be as follows: Sample One male, $r=.22$; Sample One female, $r=-.14$; Sample Two male $r=-.05$; Sample Two female, $r=.00$.

Bem (1974, 1981) provided data which showed discriminant validity by distinguishing the BSRI from other measures of sex-role identification which theoretically conceptualize masculinity and femininity as opposite ends of a single bipolar dimension. The data from the correlation of the BSRI with the Masculinity-Femininity scales of the California Psychological Inventory and the Guilford-Zimmerman Temperament Survey show that the Guilford-Zimmerman scale is not correlated at all with the three scales of the BSRI, however the California Psychological Inventory was moderately correlated with all three. Both of these measures are used frequently in research on sex roles. The fact that these moderate correlations were not high indicates that the California Psychological Inventory does not directly look at the aspects of sex-role identification that the BSRI does (Bem, 1974).

In order to determine whether there was a relationship between the social desirability response and an individual's responses and the BSRI, the Marlowe-Crowne Social Desirability scale was administered along with the BSRI on the $n=28$ test-retest sample. Product-moment correlations showed low correlations, indicating that the BSRI was not measuring social desirability (Bem, 1981).

The conceptualization of a sex-typed individual is one who constricts and regulates her or his behaviour according to a culturally defined standard which dictates what sex-typed behaviours are appropriate. Bem and Lenny (1976) empirically validated this

avoidance of cross-sex behaviour by a sex-typed individual by asking sex-typed, androgynous, or sex-reversed subjects to indicate which of sixty different masculine, feminine or neutral activities they would be willing to perform for pay, while being photographed. The hypothesis was that the sex-typed subjects would reject the less sex-inappropriate activities more than the androgynous or sex-reversed subjects. Subjects were also asked to indicate how they felt about performing each activity with Bem and Lenny (1976) predicting that the sex-typed individuals would feel more anxiety and discomfort about the performance in the cross-sex activity. Consistent with the hypotheses, sex-typed subjects were significantly more likely to resist less sex-appropriate activity with an analysis of variance showing a significant main effect for sex role $F(2,132)=6.42$, $p < .005$). The results for the negativity ratings indicated that sex-typed subjects reported feelings more nervous and more peculiar than any one else, $t(69)=4.52$ ($p < .001$) supporting the second hypothesis.

Additional support for the BSRI was also provided by data which confirmed hypotheses about androgynous individuals blending and integrating behaviours rather than regulating and restricting behaviours as do sex-typed individuals. Bem (1975) first studied the hypothesis that masculine and androgynous subjects would both do better with stereotypically masculine behaviour than feminine subjects by testing their expression of opinions in a conformity experiment.

During the experiment, subjects were asked to rate 96 cartoons

on a 9-point scale, 36 of which a false consensus was presented to the subject in an attempt to induce conformity. As predicted, the masculine and androgynous subjects conformed on fewer trials than the feminine subjects being significant for males ($t=2.62$, $p < .02$), females ($t=1.95$, $p < .06$), and for both sexes ($T=3.27$, $p < .01$). Masculine and androgynous individuals did not differ in conformity (t) for all comparisons. An analysis of variance did not find a main effect for sex ($F=1.58$, ns). Bem (1975) then looked at a stereotypically feminine task of interacting with a kitten to test her hypotheses that feminine and androgynous subjects would both do better than masculine subjects. Taken as a whole, the results of these experiments showed again the same general trend in which androgynous individuals were high in both independence and nurturance.

Fear of Success Consequence Scale

Description

The Fear of Success Consequence Scale (FOSC) is used to assess an adolescent's emotional concerns about the potential social consequences of academic success in three dimensions: negative peer reactions, fear of compliments and praise, and fear of increased responsibility and expectations for continuous success (Ishiyama & Chabasso1, 1984).

Ishiyama and Chabasso1 (1984) conceptualized success as intrinsically rewarding and that success would not be avoided in the absence of inhibiting factors. The three subscale factors of the test conceived of as inhibiting factors are the Negativity factor

meaning fear of negative peer reactions such as rejection and criticism, the Positivity factor meaning fear of positive social reactions such as praise and attention, and the Responsibility factor, meaning fear of increased pressure to live up to others expectations to continue to be successful in the future.

Administration

The FOSC is a self-administered paper and pencil instrument, applicable to administration in large group settings, taking a maximum of twenty minutes to complete. The FOSC is composed of 18 items answered on a 7-point Agree/Disagree scale. Six questions compose each of the three subscales: Positivity factor, Negativity factor and Responsibility factor. Higher scores are indicative of a stronger fear of success with the total fear of success score obtained by summing the three subscale scores. The FOSC was selected for use in this study because of its efficient administration ability, and its applicability to an adolescent school population.

Reliability and Validity

In two separate reports, Ishiyama and Chabasso1 (1984, 1985) report reliability and validity measures obtained from a sample of 183 boys and 181 girls in grades seven to twelve.

Internal consistency coefficients for the Negativity, Positivity and Responsibility subscales were .88, .88, and .83, respectively. A Cronback α for the questionnaire was .90 with the correlation between each item and the total score ranging from .50 - .73. The scale evidenced acceptable test-retest reliability over

the eight week interval as .57, .54, and .55 for the subscales Negativity, Positivity and Responsibility, respectively, and .64 for the total score.

The construct validity of the three subscales was confirmed using a factor analysis. Six judges were 100 percent in agreement in classifying each item into the appropriate subscale, establishing the scales' content validity.

Criterion-related validity of the FOSC was established with a highly significant correlation with the Fear of Success Scale (Good & Good, 1973) (.70, .63, .65, .60, $p < .05$) for Total Score, Negativity, Positivity and Responsibility, respectively, and a small but significant correlation with Fear of Success Scale (Zuckerman & Allison, 1976) (.28, .29, .23, .16, $p < .05$) Score, Negativity, Positivity and Responsibility, respectively. On other measures of social and test anxiety measures, the Total and Negativity, Positivity and Responsibility scores correlated, respectively, with the following Fear of Negative Evaluation Scale (Watson & Friend, 1969) ($r=.40, .35, .27, .37, p < .05$), and the Adult Audience Sensitivity Inventory (Pavio & Lambert, 1958) ($r=.38, .37, .31, .24, p < .05$).

A two-way analysis of variance was conducted with age and sex with the Total Score and three subscales with four comparison groups (early adolescent boys, early adolescent girls, mid-adolescent boys, mid-adolescent girls).

On the Total Score and the three subscales (N, P, R, respectively), the age effect was significant ($F=33.16, p < .001$,

$F=39.86$, $p < .001$, $F=14.57$, $p < .001$, $F=18.43$, $p < .001$), indicating an early adolescent's higher fear of success. Scores between boys' and girls' scores were found to be higher for girls in early adolescence on the Total Score ($t=3.53$, 147 df, $p < .001$), the Negativity subscale ($t=3.17$, 147 df, $p < .005$), the Positivity subscale ($t=2.62$, 147 df, $p < .01$), and the Responsibility subscale ($t=2.79$, 147 df, $p < .01$). There were no significant sex differences found among mid-adolescent boys and mid-adolescent girls.

Additional two-way ANOVAS with grade supported primary influences of sex and age on fear of success consequences with sex and grade effects on the Total Score and three subscales all significant.

Hypotheses

The major purpose of this study is to examine the relationship between giftedness and fear of success. Due to the exploratory nature of this study, the predictive value of age, achievement status, sex, grade and sex-role orientation were also examined.

H0 I: Age does not contribute to predicting a fear of success score (as measured by FOSC) in the gifted students sampled.

H0 II: Sex does not contribute to predicting a fear of success score (as measured by FOSC) in the gifted students sampled.

H0 III: Achievement status (Achieving/Underachieving) does not contribute to predicting a fear of success score (as measured by FOSC) in the gifted students sampled.

H0 IV: Grade does not contribute to predicting a fear of success

score (as measured by FOSC) in the gifted students sampled.

H0 V: Sex role identification (as measured by BSRI) does not contribute to predicting a fear of success score (as measured by FOSC) in the gifted students sampled.

Additional hypotheses concerning the difference in means on the FOSC scale was also examined.

H0 VI: There is no difference in the means between the female gifted students sampled and Ishiyama and Chabassol's (1984) sample of female non-gifted students on the FOSC scale.

H0 VII: There is no difference in the means between the male gifted students samples and Ishiyama and Chabassol's (1984) non-gifted students in the Total FOSC scale.

Procedure

Method of Data Collection

Letters of intent were written to the principals of six public high schools containing a high number of gifted students. After securing four principal's consent, a letter of introduction and parental consent form was sent to each student's parent or guardian. On the day of the testing, those students who had brought back the consent form were called to a classroom setting in the respective high school.

The purpose and intent of the study was explained to each student with instructions not to leave any item blank and to ask questions if they did not understand an item. Each subject received a non-coded brown envelope containing the following:

1. A Demographic Data Form
2. A Bem Sex-Role Inventory
3. A Fear of Success Consequence Scale

After completion of the inventories, the envelopes were returned. Arrangements were then made with the teacher or guidance counsellor to access each student's most recent mark in Math and English. As two of the schools were on a semester system, midterm or the most recent marks were used.

Completion of the questionnaires took a maximum of 45 minutes of the subject's time.

Ethical Considerations

Participation in the study required both subject and parental consent. Precautions were undertaken at all times to ensure the anonymity of the subjects. Individual subject responses are anonymous and confidential to this researcher.

Subjects were informed as to the nature and intent of the study before completing the questionnaires. No remuneration was offered and subjects would not suffer any harm by participating in this study. If a subject had suffered some harm, this researcher would have been responsible for ensuring that the consequences were corrected.

No information obtained from the study was traceable to a given subject. All written consent forms, demographic sheets, and scoring forms were stored in a locked filing cabinet and destroyed following completion of the researcher's thesis. Group statistics only were reported.

Experimental Design and Statistical Analysis

This exploratory study was correlational in nature. It was designed to investigate the relationship between five independent

variables and one dependent variable. One sampling only was done.

Multiple regression was employed using the SPSS program (Nie, Hull, Jenkins, Steinbrenner, & Brent, 1975) in order to evaluate the prediction value of these independent variables to the dependent variable. Multiple regression is used in exploratory research to test hypotheses about the manner in which variables were related (Healy, 1984). Younger (1979, p. 2) states "techniques of regression analysis can be used to see if theory is supported or refuted by empirical evidence." Multiple regression is well suited to samples which have a low number of observations where the investigator wants to save degrees of freedom thereby minimizing errors (Glass & Hopkins, 1984).

In order to facilitate this analysis, the dichotomous independent variables of sex and achievement status were numerically coded. The categorical variables of grade, age, and sex-role identification were broken down into J-1 dichotomies.

The following model was thus tested:

$$y = B + B_1 X_1 + B_2 X_2 + B_3 X_3 + B_4 X_4 + B_5 X_5 + e \text{ where}$$

y = fear of success score (as measured by FOSC)

B_1 = age

B_2 = achievement status (achieving/underachieving)

B_3 = sex

B_4 = sex-role identification (as measured by BSRI)

B_5 = grade

e = unexplained deviation variance.

The F test was then used to test for a significant relationship

between the dependent variable and the set of independent variables. In regression analysis, the F test is well suited to analyses involving more than one independent variable (Anderson, Sweeney, & Williams, (1986). If the test of significance of regression could not detect any overall significance, "individual tests of predictors is not warranted" (Younger, 1979, p. 244). A .05 level of confidence was chosen as being indicative of a significant relationship between the variables.

The Fear of Success Consequence Total scores obtained in this sample were tested for significance in order to determine if these sample scores are alike or different from the Fear of Success Consequence scores obtained in Ishiyama and Chabassol's (1984) study of 183 males, and 188 females, non-gifted students.

A two-tailed hypothesis test using the Z sampling distribution involves finding the probability of the observed sample outcome given that a null hypothesis is true (Healy, 1984).

Therefore the following model will be tested:

$$H_{0_{vi}}: x = u \text{ and } H_{0_{vij}}: x = u$$

A critical region of α .05 was selected with Z (critical) 1.96 for both hypotheses.

CHAPTER FOUR

RESULTS

Response rates and descriptive statistics are presented with accompanying Tables 1 and 2. Tests of Hypotheses are then described in text and Tables 3 and 4.

Response Rates

Letters of introduction and intent were mailed to the principals of six public high schools in Calgary. Of these, four principals indicated their cooperation. A total of 93 parental consent forms were given to the parents of identified gifted students by a teacher or designated school official with 68 completed and returned. One of the student's marks in Math and English were unavailable and thus the student's responses on the other inventories were not included in the data analysis resulting in 67 observations.

The size of the sample is assumed to have been affected by the following factors:

1. The relative difficulty in securing the interest of the principal's and coordinating staff to allow this researcher access to the students.
2. The possibility that parental consent forms did not reach the parents via the student.

Although the sample size is small, it was felt that, due to the exploratory nature of the study, analysis of the data would be of benefit in identifying trends and providing direction for future research.

Descriptive Statistics

Distribution of Demographic Variables

Information about age, sex, and grade level were collected and frequencies determined. The frequencies are presented in Table 1.

The age of the sample ranged from 14 years and 18 years with the mean age of 16 (SD .99). Twenty-eight females and thirty-nine males comprised the sample. Grade level ranged from 10 to 12 with mean grade 11 (SD .76).

For the purposes of description of the sample, frequencies of sex-role identification are given in Table 3. Of the sample, approximately 46% were classified masculine sex-typed, 13.5% were classified feminine sex-typed, 30% were classified undifferentiated and 10.5% were classified androgynous. Three females and 10 males were classified as underachieving (19% of the sample).

Tests of Hypothesis

Hypothesis I generally states that there would be no relationship between age and the fear of success score. Table 4 reports that age explains 4% of the variance in the fear of success score by itself. As shown in Table 5, the value of F for the test of this hypothesis was 3.07 with degrees of freedom equal to 1 and 65. Since this result was not significant beyond the selected critical level of 4.0 ($p < .05$), the null hypothesis, H_0 I was not rejected.

Hypothesis II states that there would be no relationship between gender and a fear of success score. Table 4 reports that gender adds .05% to the explained variance in the fear of success

Table 3

Distribution of Sex-Role Identification By Gender
 N = 67

		Masculine Sex-Typed	Feminine Sex-Typed	Androgynous	Undifferentiated
Males	n	21	5	1	12
	%	31	7.5	1.5	18
Females	n	10	4	6	8
	%	15	6	9	12
	n	31	9	7	20
	%	46	13.5	10.5	30

Table 4
Regression Analysis Results

Independent Variables	R ²	Beta - Coefficients
Age	.04	-.33
Gender	.05	.04
Achievement Status	.06	.18
Grade	.07	.14
Sex-Role Identification	.09	.48

score. As shown in Table 5, the value of F for the test of this hypothesis was 1.80 with degrees of freedom equal to 2 and 64. Since this result was not significant beyond the selected critical level of 3.15 ($p < .05$), the null hypothesis, H_0 II was not rejected.

Hypothesis III states that there would be no relationship between achievement status and a fear of success score. Table 4 reports that achievement status adds .06% to the explained variance of the fear of success score. As shown in Table 5, the value of F for the test of this hypothesis was 1.39 with degrees of freedom equal to 3 and 63. Since this result was not significant beyond the selected critical level of 2.76 ($p < .05$), the null hypothesis, H_0 III was not rejected.

Hypothesis IV states that there would be no relationship between grade and a fear of success score. Table 4 reports that grade adds .07% to the explained variance of the fear of success score. As shown in Table 5, the value of F for the test of this hypothesis was 1.83 with degrees of freedom equal to 5 and 61. Since this result was not significant beyond the selected critical value of 2.37 ($p < .05$), the null hypothesis H_0 IV was not rejected.

Hypothesis V states that there would be no relationship between sex-role identification and a fear of success score. Table 4 reports that sex-role identification adds .09% to the explained variance of the fear of success score. As shown in Table 5 the value of F for the test of this hypothesis was 1.60 with degrees of freedom equal to 4 and 62. Since this result was not significant

Table 5

ANOVA Summary Table for Multiple Regression
With Five Independent Variables

Independent Variables	Source	Sum of Squares	Mean Square	F
AGE	Regression	1077.714	1077.714	3.07
	Error	22794.405	350.683	ns
	Total	23872.119		
GENDER	Regression	1274.459	637.229	1.80
	Error	22597.660	353.088	ns
ACHIEVEMENT STATUS	Regression	1481.379	493.793	1.39
	Error	22390.740	355.409	ns
GRADE	Regression	3690.741	615.124	1.83
	Error	20181.378	336.356	ns
SEX-ROLE IDENTIFICATION	Regression	3812.126	544.589	1.60
	Error	20059.994	339.999	ns

$p < .05$

beyond the selected critical value of 2.53 ($p < .05$), the null hypothesis $H_0 V$ was not rejected.

There were no significant relationships between the individual predictor variables and the criterion. Of the variance in the criterion, 16% was accounted for in this analysis.

Hypothesis VI states that there would be no difference between the FOSC Total scores for females of this sample and the female FOSC Total scores obtained in Ishiyama and Chabassol's (1984) sample. The means and standard deviations of the FOSC scale are presented in Table 6. Significance testing of the FOSC total score for females, using the Z sampling distribution, yielded an obtained Z score of -1.88. As $Z(\text{critical}) = \pm 1.96$, $p = .05$ (two-tailed), the null hypothesis cannot be rejected.

Hypothesis VII stated that there would be no difference between the FOSC Total scores for males of this sample and the male FOSC Total scores obtained in Ishiyama and Chabassol's (1984) sample. A test of this hypothesis using the Z sampling distribution, yielded an obtained Z score of -1.58. As $Z(\text{critical}) = \pm 1.96$, $p = .05$ (two-tailed), the null hypothesis cannot be rejected.

Table 6

Means and Standard Deviations of FOSC Scale

Subscale	Ishiyama & ChabassoI Sample (1984)			Current Samples (1988)		
		Mean	SD		Mean	SD
NEGATIVITY	Female	19.96	8.29	Female	20.54	9.39
	Male	22.26	9.17	Male	17.80	2.20
POSITIVITY	Female	18.93	7.75	Female	18.43	5.17
	Male	20.68	8.03	Male	18.26	7.16
RESPONSIBILITY	Female	23.38	7.84	Female	22.21	10.72
	Male	25.54	8.70	Male	20.70	6.90
TOTAL SCORE	Female (n=198)	62.31	20.21	Female (n=28)	61.18	21.73
	Male (n=183)	68.40	22.03	Male (n=39)	56.74	23.10

CHAPTER FIVE

DISCUSSION AND CONCLUSION

The purpose of this study was to explore the relationship between fear of success and five independent variables with gifted students in public high schools. Fear of success was measured using the Fear of Success Consequence Scale. The independent variables of age, sex, and grade were taken from a demographic data form the subjects completed. Achievement status was determined from the students' grades. Sex role identification was measured with the Bem Sex Role Inventory. Thirty-nine male subjects and twenty-eight female subjects were tested. Seven hypotheses were tested.

This chapter discusses the findings of the study as they relate to the literature according to the following format. First, the relationship between the independent variable of age, sex, achievement status, and sex-role identification and grade with fear of success will be discussed in light of this study's findings. Secondly, the data resulting from the comparison of FOSC scores obtained from this study's subjects and an earlier sample of non-gifted subjects will be discussed. Finally, the limitations of this study, implications for counsellors, and recommendations for future research will be discussed.

Age and Fear of Success

The results of this study indicate that age was not significant in predicting a fear of success score in those gifted students sampled. This result is inconsistent with Horner's original thesis

that fear of success would be increasingly characteristic of age. This result is also contradictory to Ishiyama and Chabassol's (1985) reverse position which stated that early adolescents gave higher ratings on the FOSC than older adolescents. The findings of this study are consistent with a small body of literature that did not find an age difference when measuring fear of success (Brown, Jennings, & Vanick, 1974; Jackaway, 1974; Romer, 1975).

A possible explanation for the result of this study may lie in Horner's theoretical reasoning for an age-fear of success correlation. Horner hypothesized that since the older individual was increasingly exposed to the socialization process, this older individual would be more likely to encounter sex-role related conflicts. In view of this explanation, it may be that the nature of the sample in the present study obscured the age factor in three ways:

1. Those high schools sampled did not readily set boundaries around age groups. That is, students of different ages are permitted to participate academically and socially together. Progress or advancement in classes is based more on merit than age, thus obscuring distinct socialization experiences associated with particular age groups. The exposure to possible situations which may evoke a fear of success response may then be a more general and common experience of all high school students.
2. The socialization process and the resulting fear and anxiety about the negative consequences of success may not have been evoked in the relatively safe atmosphere of the high school setting. Age

may have shown to be a predictor variable if this sample had included elementary, junior high, college and post-graduate students.

3. It should be noted that while past research has been both supportive and contradictory of age as a correlating variable to fear of success, the students in this sample are the first known identified gifted students to be studied in terms of this correlation. It may be that the socialization process producing the proposed age difference is negated by other characteristics introduced by the giftedness such as high self-esteem, androgyny, and different achievement motivations.

Gender and Fear of Success

The results of this study indicate that the gender of the gifted student was not significant in prediction of fear of success score. This finding is contradictory to a large body of research which shows a higher incidence of fear of success among females than males. It is also contradictory to the foundation of Horner's theory which stated that females experienced achievement differently from males, hence the development of the fear of success construct. Further, although the fear of success measure, (the FOOSC) was validated with higher FOOSC scores among females than males, the use of the FOOSC with the gifted subjects sampled did not show this difference. The results of this study are supported by other studies not showing a gender difference (Hawkins & Pingee, 1978; Tresemer, 1976; Romer, 1975).

The results of this study may be interpreted by the following

one theoretical and practical conclusion. Firstly, Horner attributed fear of success as more applicable to females on the assumption that successful competitive achievement was antagonistic towards femininity. Her defense of this point was therefore based both in cultural perceptions of appropriate sex-role behaviour and the individual's own perceptions of appropriate sex-role behaviour. It may be that academic performance in high school courses is not what Horner meant as successful competitive achievement with males; and, that may have influenced the results of this study. The question then becomes: Does competing with a boy in Math or English holds a strong enough negative-expectancy value necessary to elicit a fear of success response?

The individual's perceptions of sex-role appropriate behaviour forms another necessary component of Horner's gender based theory. The results of this study showed that over half of the 27 females perceived themselves to be masculine or androgynous when assigning personality characteristics to their self definition. As discussed in the literature review, Bem and Lenny (1976) found that sex-reversed and androgynous individuals reported less anxiety and less discomfort about performance in masculine activities. It is probable then that for most of the females in this sample, performance with males in a competitive achievement setting such as high school is not perceived by them to be conflictual and anxiety provoking.

Achievement Status and Fear of Success

The results of this study indicate that the achievement of the

gifted student was not significant in predicting a fear of success score. This is contradictory to Horner's view which labelled the high achieving female as more likely to exhibit fear of success. The literature review revealed that many researchers and educators working with the gifted female link fear of success to underachievement. The results of this study are consistent with research that has disclaimed an achievement-fear of success link (Eme & Laurence, 1976; Tresemer, 1976).

The failure of this study to support the fear of success description of female underachievement may be linked to two theoretical and two practical conclusions.

Theoretically, Horner never detailed her definition of a high achiever. Within the gifted literature the definitions of how to define the achiever and underachiever differ. It may be that the method employed in this study was not an accurate measure upon which to label a student underachieving.

Hollinger and Fleming's (1984) results indicated that the gifted female who indicates low achievement motivation was one of the least likely to reflect a fear of success motive. These researchers' explanation of this finding was that these same low achievers also showed the lowest orientation towards work and mastery. They speculated that the underachievement-low fear of success correlation may be explained by the possibility that work and mastery increases the probability of success. Therefore, it may also enhance the fear of the consequences perceived to be associated with achieving success. The situation is therefore one of the

underachiever not exhibiting fear of success because success is probably not likely, and the achiever not exhibiting fear of success because she possesses those traits (assertiveness, social competence, social self-esteem) that makes her comfortable and less anxious about achieving success. If this formulation is true, it would be difficult to gauge the effects of achievement status on a fear of success score.

On a practical level, the results could be interpreted in two ways. Firstly, it may have been that this study did not include true academic underachievers. It is possible that a gifted underachiever may not have been identified as gifted within the school system by virtue of his or her underachievement. Secondly, the use of grades is, at best, a general overview of a student's achievement status. As Stockard and Wood (1984) maintain, it may be that "achievement, as measured by grades, must be seen as distinct from achievement measured by educational and occupational aspirations and attainment" (p. 835). Also, the different schools from which the samples were drawn may have introduced distortions in the labelling of the underachievers with the differences in marking criteria, curriculum, and general semester versus timetabled programs of study.

Sex-Role Identification and Fear of Success

The results of this study indicate that sex-role identification was not a significant predictor of fear of success in gifted students. Horner theorized that a traditionally sex-typed female would be more vulnerable to a fear of success motive because the

conflict with success would be greater. Although this correlation has been supported by some, the results of this present study are also supported by a large body of research indicating no relationship (Depner & O'Leary, 1976; Tresemer, 1976; Zuckerman & Wheeler, 1975).

The literature review showed that gifted individuals appear to be more androgynous or masculine in their sex-role identification (Wells, Peltier, & Glickauf-Hughes, 1982) factors which other researchers attribute to a low fear of success score (Kearny, 1982; Mulig, et al., 1985). While this study supported the claim that the gifted individual was more likely to be masculine or androgynous, this study did not substantiate either Horner's claim or the findings of Kearny (1982) and Mulig, et al., (1985). This suggests that the sex-role identification of the gifted student may not play a critical role in his or her perception of the negative consequences associated with success.

Theoretically, the explanation of why an individual would regulate his or her behaviour so that it is consistent with sex role appropriate behaviour is found in cultural definitions of that behaviour. If one were to define a gifted peer group as a culturally based group, it may be that the values and definitions of what is appropriate include such androgynous values as confidence and excellence. The individual responses to the FOSC questions may have shown a sex-role correlation if they have been compared to individual responses given by non-gifted students. This study suggests that a researcher must not only examine the sex-role

identity of the subject but also the cultural group to which that individual most readily ascribes.

Grade and Fear of Success

In this study, grade was not a significant predictor of a fear of success score. This is contrary to Ishiyama & Chabassol's (1985) validation data on the Fear of Success Consequence Scale which showed lower grades associated with higher fear of success scores.

As with age, the use of grades has become a less identifying factor in high schools where students take classes based on achievement. It is possible that a significant difference may have resulted if this study had included a wider grade range. In view of the non-significant finding on the age factor, this result should be further viewed within the context of the restricted scope of the sample.

Fear of Success Consequence Scores

In this study, it was found that the scores obtained by the gifted students on the FOSC were not significantly different from the scores obtained by a sample of non-gifted students in the Ishiyama and Chabassol (1984) study. This finding is contradictory to a large body of descriptive literature specifically identifying the gifted female as especially prone to fear of success by virtue of her ability to achieve success..

The results of this study support the tentative conclusion that fear of success may not be a special achievement concern of the gifted female or male. Descriptively, the gifted female is believed by some researchers to encounter more conflictual sex-role

situations than her non-gifted female counterpart because of the likelihood she will excel and achieve success in a male-dominated profession. What may be missing from this achievement pattern however is the inclusion of research which examines fear of success and individual characteristics. Major factors which differentiate the gifted female from the rest is her gender, sex-role identification, high ability, achievement orientation and IQ. As pointed out in the literature review, research has indicated that these factors may not be correlated to fear of success. It may be then, that fear of success is not correlated to any factors or characteristics that differentiate the gifted female from other groups.

The results of this comparative analysis with the FOSC scores could also be interpreted in another manner. The gifted students sampled here were students enrolled in public high schools where they are not identified as a distinct group. Their friends, academics, and social life are shared with a majority of students that are non-gifted. It may be that the sex-role forces and conflicts become a common female experience rather than a gifted female experience, thus reducing the differentiation once again.

Limitations of the Study

Sincere there was one known study empirically investigating the relationship between giftedness and fear of success, there was a limited body of knowledge about this relationship. There was no normative data available for fear of success scores with gifted students using the FOSC thereby limiting predictive ability. The

theoretical and methodological problems with the fear of success construct are not resolved, thereby leading to a difficulty in constructing hypotheses that could be evaluated against a valid theoretical resource base. Further, the construct validity of the dependent variable has been questioned, which may have made fear of success an inappropriate measure for achievement behaviour in this study.

The fear of success measure (FOSC) was an unpublished new scale and has not been subjected to rigorous theoretical and experimental scrutiny. Evidence of this scale's validity and reliability was limited to the authors of the scale. There were no norms for use with gifted subjects.

The sample was not random. Selection of subjects was based on access to school principals, teachers, student and parental cooperation and consent. The lack of randomization may have led to bias in the results of the study through the lack of control over extraneous variables. The small number of subjects and small number of females further increased the risk of biased results. A control group was not selected for use in this study and inclusion of this would have added control and means for comparison. These problems with the experimental design limits this study's findings.

It is recognized that the criterion of achievement, as based on grades, may have contributed to the lack of significant results. Gjesme (1973, p. 133) criticizes the practice of measuring fear of success in academic performance because "neither the very bright nor the very dull pupil has his motive to achieve success or his motive

to avoid failure strongly aroused since the school situation is held to be, respectively, 'too easy' or 'too difficult'." The measure of achievement status in this study was designed arbitrarily using a mean grade cut-off and may not have reflected academic achievement therefore biasing the results. Reis (1987) criticizes the use of grades as subjective, unreliable, and invalid.

The inability of the independent variables to predict a fear of success score may have been a result of the problems with the methodological design of this study, particularly in light of the large body of other empirical and descriptive work supporting the correlation of these variables to a fear of success score. The findings of this study have limited generalizability. Since the sample size was small, it is premature to generalize to any population other than the one studied.

Recommendations for Future Study

The results of this study are not supportive of the theoretical and descriptive literature that states that the gifted female faces fear of success as a unique achievement obstacle. This area of research warrants further investigation as this study raised some important research questions.

The specific behavioural and social factors influencing the achievement pattern of the gifted female need to be determined and empirically reviewed. Longitudinal studies which would examine the difference in motivation through the college years may reveal fear of success differences among the sexes. Specification of the contributing factors which produce the differences would have

tremendous implications for counsellors and educators.

This study indicated that the sex-role identification of the gifted student was largely conducive to a strong achievement orientation. Out of 67 students, nine showed a feminine sex-role orientation, a factor which research has shown to be a factor in producing the sex-role conflicts necessary for a fear of success response. Research is needed to examine the specific link, if any, with sex-role orientation to achievement behaviour. Further, the finding that 30% of this sample described themselves as undifferentiated or potentially androgynous suggests that a consolidation of the sex-role orientation for these students comes with age. The research examining the specifics of this process could lead to interventions which may facilitate the achievement contributions of these students in occupational endeavours.

The fear of success concept focuses on achievement anxiety evoked by the conflict with sex-role standards held both personally and by others. This achievement anxiety has been largely described as a female experience, however this study showed that five males described themselves as feminine sex-typed. Is the social rejection of the feminine male more severe than that of the feminine female? Research is needed to explore this question.

Hollinger and Fleming's (1984) work with the gifted female and interrelated internal barriers warrants further research. Their work suggested a multidimensional approach to examining the gifted female's achievement behaviour, particularly in view of the finding that a work and mastery orientation may simultaneously produce an

enhancement and suppression of a fear of success response. Empirical research into this process may illuminate the question of why the gifted female student appears equally achievement oriented as her gifted male counterpart and yet fails to contribute occupationally as equally later in life. Other variables such as self-concept, locus of control, co-education, sex of teacher and other socio-cultural factors which may be interrelated with fear of success should be determined and examined.

Finally, research should focus on the particular achievement planning of the gifted female as a separate process from that of the gifted male. Although the fear of success research is a female achievement concept, the results and interpretations of the implications remain largely viewed against and with a male standard of excellence and occupational success. Achievement for the gifted female must be perceived as any area where she excels and succeeds.

Implications for Counsellors

Although the results of this research are not sufficiently clear to provide specific direction to the counselling practice, some general implications can be brought forth.

Counsellors need to be aware of the enormous impact social rejection issues have on achievement behaviour and take note of the sex-role attitudes held by the educators and parents of gifted students. The number of potentially androgynous gifted students found in this study suggests a need for preventative and enhancement work around sex-role attitudes and values. Co-educational interventions which look at how motivation patterns in both sexes

are tied to changing attitudes, values and experiences has been suggested by Farmer (1976).

Both male and female gifted students need to be encouraged to adopt flexible attitudes towards college choices and multiple role-planning. Gifted females and males need education and information about possible career obstacles, including the fear of success process. Finally, the lack of empirical work in this area suggests that counsellors must apply experimental validity to the descriptive assumptions made about the underachievement of the gifted female.

Summary and Conclusions

The major purpose of this study was to explore the nature and extent of the empirical relationship between fear of success and the gifted female and to provide some empirical insight to the theoretical and descriptive assumptions made in the area.

The independent variables of age, gender, achievement status, sex-role identification and grade were selected to determine their usefulness in predicting a fear of success score. Some research had identified these variables as significant correlates of fear of success. Analysis of a multiple regression with these variables showed that they accounted for only 16% of the variance in the criterion. The five independent variables were not significant predictors of a fear of success score. When the Fear of Success Consequence Scale scores, obtained from the gifted subjects, were compared with those normative FOSC scores obtained by non-gifted subjects, there was no difference.

Several tentative explanations were offered for the non-significant correlations. As fear of success scores did not vary with age or grade, it was concluded that the setting of the samples may have been responsible for this effect. The gifted student in a public high school socializes and participates academically with students of different ages and ability, due in part to the unstructured, merit-based high school system. This setting facilitates more general, common socialization experiences, obscuring distinct age and grade boundaries. The finding that the gender of the gifted subject did not affect a fear of success score was contradictory to the main tenet of Horner's theory and the large body of descriptive literature which identifies the gifted female as more likely to encounter fear of success as a career obstacle. Explanations for the non-significant correlation were based in the question of whether the gifted females in this study felt sufficiently anxious about the negative consequences of success to elicit a fear of success response. It was questioned as to whether academic competition in the relatively safe atmosphere of a high school is tantamount to Horner's condition for arousal in successful competitive achievement. It was also noted that in light of these gifted females' sex-role identification, performance with males in competition may not arouse uncomfortable feelings.

The non-significant correlation of achievement status with fear of success is largely contradictory to the descriptive literature which places the underachievement of the gifted female in the context of a fear of success response. Difficulties with the

definition and measurement of this variable were discussed. The possibility that this study did not measure true underachievement was brought forth. The inherent difficulty with the fear of success concept and its relationship to underachievement was conceptualized. That is, in terms of the underachiever not scoring high on a fear of success measure by virtue of his or her underachievement and lack of work and mastery, and the achiever not scoring high on fear of success because of his or her orientation toward work and mastery, fear of success scores would be difficult to gauge.

Finally, the finding that sex-role identification is not useful in predicting fear of success score is supported by other research with non-gifted subjects showing similar results. It was suggested that cultural definitions of appropriate sex-role behaviour may vary for the gifted student. In light of this, the gifted student may vary or regulate his or her behaviour according to the cultural values of a gifted group which advocates the traits of competence and excellence. This, in turn, negates the anxiety necessary for a fear of success response.

The FOSC scores of the gifted subjects in this study did not differ significantly with those of the normative scores obtained from non-gifted subjects. This general result is consistent with the conclusions reached in discussing the other tests of the hypotheses in this study. These hypotheses generally suggested that the gifted female is not experiencing fear of success as a unique career or achievement concern.

It is clear that this study raises more questions than it

answered. What is also clear is that this study does not support Horner's theory of fear of success as being a different achievement consequence for the bright, achieving, and talented female. The failure of this study to support descriptive assumptions made about the relative underachievement of the gifted female and fear of success suggests that this study reflects a confirmation of more recent empirical work criticizing the fear of success theory and measures. While not negating Horner's contribution, this study suggests that a gifted female's achievement behaviour is linked to more specific situational variables such as a female's perception of success, and the social and cultural values held both personally and by her peer group which influence these perceptions. In this view, this study also reflects that the relative underachievement of the gifted female is one that does not fit into traditional models of achievement or underachievement developed for her gifted male counterpart or the non-gifted female.

Since this was an exploratory study, designed to examine descriptive assumptions made in the literature, further research is necessary. Empirical investigation of the specific behavioural and social factors influencing the achievement behaviour of the gifted female is needed. This study raised the need for research into the behavioural and social consequences of a gifted student's sex-role orientation. Longitudinal examination of the changes that may occur in the sex-role perceptions and attitudes of gifted students would lend insight into identifiable and preventable predictors to underachievement.

The achievement pattern of the gifted female needs to be qualitatively examined and defined as research distinct from that of her gifted male counterpart and non-gifted peers. This distinctive research approach would lend clarity into norms for achievement, direction for educators and counsellors working with the gifted female, and a solid resource base upon which to base interventions and future empirical research.

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APPENDIX A

703-3500 Varsity Dr. N.W.
Calgary, AB.
January 19, 1988

Dear _____,

I am a graduate student at the University of Calgary, (Educational Psychology) currently conducting thesis research on gifted high school students and achievement behavior. This proposed thesis research has been approved by the Research Ethics Committee at the University of Calgary and the Calgary Board of Education.

In consulting with Mrs. Georgina Adamson, I was referred to your high school as a possible source of subjects for my research. In brief, I am examining the relationship between fear of success and the underachievement of the gifted females. Student, teacher, and school anonymity is guaranteed and both student and parental consent is required.

I would appreciate the opportunity to discuss this research with you more thoroughly and will be contacting you by phone in order to possibly arrange such a time. If you have any questions or concerns regarding this, please do not hesitate to contact me at home 289-3050 or work 282-1815.

Sincerely,

Barbara Howe

APPENDIX B

Date

Dear Parent:

You are being asked to consider the participation of your child in a study examining the achievement behavior of gifted students in a public school setting. The purpose of this study is to determine the significance of fear of success in the achievement of gifted adolescents.

Your child's participation would involve approximately forty-five minutes of class time. During this time he/she would be asked to complete a demographic data sheet (age, sex, grade level) and two inventories. The Bem Sex Role Inventory measures psychological androgyny on the extent to which an individual separates himself or herself from characteristics commonly ascribed to the opposite sex. The Fear of Success Consequence Scale measures an adolescent's fear of potential social consequences of academic success. Your child may stop participating at any time. Her/His name will only be known to this researcher. A designated school official will then access your child's cumulative file in order to determine achievement status. This will be determined from the grades your child has received in Mathematics and English this semester. Her/His name will not be used by the researchers in the reporting of the results of the study. All data will be destroyed after the scoring and analyses are complete. Student's participation/nonparticipation in this study will in no way affect his/her grades.

This study is of significance in that there is a lack of empirical knowledge in terms of the gifted student and those factors that may enhance or inhibit the academic achievement of high ability students. Examination of the fear of success construct and its relationship to psychological androgyny and giftedness will prove to be a useful means toward understanding the complex achievement behavior of the gifted adolescent.

Please do not hesitate to contact me if you have any questions or concerns regarding this study. Please complete the attached form and return it to the school by _____.

Sincerely,

Barbara Howe
(Graduate Student, University of Calgary)
Ph. 289-3050

APPENDIX C

Parental Consent Form

I/We the undersigned, hereby give my/our consent for _____ to participate in Barbara Howe's research study. I/We understand that such consent means _____ will complete a data demographic sheet, a Bem Sex Role Inventory and a Fear of Success Consequence Scale. Completion will take forty-five minutes of class time. A designated school official will then access _____ cumulative file to determine grades in Mathematics and English courses.

I/We are satisfied that the confidentiality and anonymity of my child will be protected. It is clear that these results will be strictly used for research purposes: to gain a better understanding of achievement behavior among gifted students.

I/We are satisfied that _____ participation/nonparticipation in this study will not affect his/her grades.

I/We also understand that participation in this study may be terminated at any time by my/our request, or at the request of my/our child.

Signature of Parent/Guardian

Date