The Relationship between Women's Levels of Achievement and Self-Reported Characteristics Using the Bem Sex-Role Inventory

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THE RELATIONSHIP BETWEEN WOMEN'S LEVELS OF ACHIEVEMENT AND SELF-REPORTED CHARACTERISTICS USING THE BEM SEX-ROLE INVENTORY

by

Sandra Kay Ragen

A Dissertation
Submitted to the Faculty of The Graduate College in partial fulfillment of the requirements for the Degree of Doctor of Education Department of Counseling and Personnel

Western Michigan University
Kalamazoo, Michigan
August 1984

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THE RELATIONSHIP BETWEEN WOMEN'S LEVELS OF ACHIEVEMENT AND SELF-REPORTED CHARACTERISTICS USING THE BEM SEX-ROLE INVENTORY

Sandra Kay Ragen, Ed.D.
Western Michigan University, 1984

The purpose of the study was to examine the relationship between adult women's perceptions of their sex role and their level of achievement. Sex role was defined by the scores achieved on the Bem Sex-Role Inventory (BSRI), and achievement level was based on an index of education, work role, and salary. It was hypothesized that a significant relationship exists between levels of achievement and self-reported masculine (instrumental) and feminine (expressive) characteristics.

A random sample of 100 females was selected from membership roles (N = 600) in the Kalamazoo Network, Kalamazoo, Michigan, a high-achieving women's group. Seventy-five (75) usable returns provided the data base for the study. Three levels of achievement—high, medium, and low—were established. Chi-square analyses indicated no significant differences between levels of achievement based on education, salary, age, and marital status; significant differences related to years of experience were evident.

An examination of Spearman rho correlations ($r < .05$) indicated a significant relationship between levels of achievement and self-reported masculine/feminine characteristics. Women who
perceived themselves to have more instrumental characteristics were also higher achievers. Women in the lower achievement levels perceived themselves as more expressive.

It was concluded that as women report higher achievement levels they tend to perceive themselves as having more instrumental traits without losing their traditional expressive traits. It appears that lower-achieving females perceive themselves as having a higher expressive orientation than the higher-achieving-level females.
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CHAPTER I

INTRODUCTION AND REVIEW OF LITERATURE

Introduction

Background

Throughout history, society's requirements concerning roles and values ascribed to females have changed dramatically. Unlike present-day Western culture, equality once existed between men and women. Barnett and Baruch (1978), in an anthropological overview, indicated that when society was primarily one of hunter-gatherers, women had short life spans and infant mortality was extremely high. Though much of their adult lives were centered around reproduction and child rearing, women's survival activities of food gathering and temporary homesite construction were also major roles. Caring for children was often the responsibility of older siblings, which made children invaluable. Thus, males and females equally shared importance in society.

As nomadic living changed to more established residence, women added the activities of limited agriculture and maintenance of the home as men left to tend herds. The importance of male and female roles remained, however, until the Industrial Revolution when separation of work and home in society became dominant. Mass-produced items which became available to families diminished the role of women. Women as teachers of their young were no longer necessary as
children were educated by others. With the increased industrialization of society, mortality rates in infants decreased rapidly and, as a result, the survival of the family was less threatened.

Transitions occurred frequently as society progressed; however, one thing did not change. The female remained close to home. She continued caring for the children and maintaining the home. With modern conveniences available, less was required of her in terms of time and ability. The functions which in the past had given status to mothers, as well as respect and satisfaction, now had little reward. Rewards came to be associated with activities and success not in the home but at work, which was not readily accessible to females. Women were not encouraged to participate and were not prepared for participation in outside work activities. Barnett and Baruch concluded their overview by stating:

They [women] were socialized to believe that the very qualities associated with success in those activities were unfeminine. Traits such as competence, assertiveness, and business-like efficiency were for them, they were told, masculine and undesirable, evidence of inadequacy as a woman and of unfitness for motherhood. (p. 74)

This overview asserts that, historically, women have been socialized to remain at home as caretakers. The beginning of the current women's movement in the late 1960s and early 1970s drew attention to some of the disparities in the labor force between working men and working women. One such disparity is the number of women in upper-level positions where status, power, and financial rewards are the greatest. While professions such as elementary and secondary teaching and nursing comprise a majority of women workers,
71% and 97%, respectively, females constitute less than 3% of engineers and less than 11% of all doctors, according to the National Commission on Working Women (1981). According to statistics from "Federally Employed Women" (1980), "1% of women hold top jobs and 2% of all board of directorships are held by women" (p. 1). The National Commission on Working Women (1981) also reported that in 1955 females were earning 63.9% of their male counterparts, whereas in 1979 that figure had dropped to 59.6%. Monetarily, then, women have lost ground relative to compensation for work performed. Thus, even though women are making some headway, recent statistics show that gaps remain in terms of actual achievement for women in the labor force.

Among women workers, the National Commission on Working Women (1981) reported that in 1979, 16.1% were in professional-technical occupational categories, while only 6.4% were in managerial-administrative (except farm) categories. Again, professional-technical includes nursing and teaching—typically female-dominated occupations.

Female achievement, then, is not a new phenomenon, but there is little information about adult women because most studies are centered on elementary-age through college-age students (Barnett & Baruch, 1978). In addition, there is little difficulty locating studies of achievement carried out with male subjects. After researchers began studying female achievement, they found that theories and results from male studies could not necessarily be generalized to include females (Barnett & Baruch, 1978; Stein &
Bailey, 1973). Recently, there are more studies being conducted in the areas of female achievement motivation, fear of success, success attribution, and competency.

Another area which has been studied recently is androgyny to better understand males and females in terms of equality. Bardwick (1979) defined the concept of androgyny as a blend of abilities, interests, and traits in an individual which are both expressive and instrumental. It is hypothesized that blending facilitates psychological health. Heilbrun (1974) referred to androgyny as the lack of rigidly assigned characteristics and impulses expressed by individuals.

Androgyny has been operationally defined as those individuals who score high on both masculine and feminine scales of sex-role inventories (Bardwick, 1971; Bem, 1977; Spence, Helmreich, & Stapp, 1975). There are several inventories available which purport to measure masculine and feminine characteristics. One such instrument is the Bem Sex-Role Inventory (BSRI). Bem (1974), of Stanford University, designed the inventory and addressed the concepts of masculinity and femininity in this way: "In general, masculinity has been associated with an instrumental orientation, a cognitive focus on 'getting the job done'; and femininity has been associated with an expressive orientation, an affective concern for the welfare of others" (p. 156).

Those who aspire to and attain upper-level careers can be labeled high achievers. High achievers must necessarily have available to them education and opportunity. Bardwick (1979) discussed
what is essential relative to women and their attitudes:

To increase the number of women in positions of significant responsibility and power will also require certain psychological changes. Women in leadership positions will have to be certain of their motives to succeed, willing to compete and aggress, certain of their choice of role, and unafraid of their visibility, their accountability, their success.

What personality characteristics are necessary to continuously produce, innovate, and be responsible? What is needed to pursue a life in which one's self-esteem is bound up with success in competitive work? Qualities of confidence, independence, competitiveness, ambitions, assertiveness, and task orientation rather than people orientation more frequently characterize men than women. These are qualities necessary for competitive success in our organizations as they now exist, and therefore these are the qualities that women will have to acquire if they want to be successful. Women who achieve outstanding success in the competitive spheres of work will be very similar to outstandingly successful men. (p. 173)

As Bardwick concluded, women who succeed in a competitive environment will probably, and perhaps necessarily, possess characteristics which are traditionally attributed to males.

Statement of the Problem

There is a need to better understand achieving women through carefully designed research studies. Statistical figures provide information regarding occupational disparities in positions and remunerations, but little has been done to determine how successful high-achieving women differ from other women who are employed. Thus, the purpose of this study was to examine achieving women and their self-reported masculine (instrumental) and feminine (expressive) characteristics.
Limitations of the Study

There are several limitations to the study. The first involves the use of questionnaires. Kerlinger (1973) suggested two major drawbacks in the use of mail questionnaires. One is the lack of responses generally received—commonly 40% to 50% rate of return. In addition, he pointed to not being able to check responses by participants. Kerlinger stated, "experience has shown that the same question frequently has different meanings for different people" (p. 487). Without question, respondents in this study may have interpreted the items on the BSRI differently. In addition, the variance in response tendencies can confound the personality variance being measured. The use of Likert-type scales used in the BSRI was supported by Kerlinger when using questionnaires because respondents can express varying intensities. He contended that subjects have differential tendencies to use particular kinds of responses (extreme, neutral, agree, disagree).

Another limitation of the study is the generalizability of results. The population sampled is a randomly selected group of high achievers. Therefore, the results may be safely generalized to high-achieving women; however, caution should be used in attempting to draw conclusions regarding women in general.

The demographic questionnaire had limitations. The number of children living in the home was not requested, nor was the age of any children. Rather, respondents were only asked to indicate presence or absence of children in the home. Though the intent of
the study was only to determine characteristics and levels of achievement, age and number of children could have affected the results. It is believed that both age and number of children could determine the presence or absence of some women in the work force as well as the occupational level attained.

Summary

In summary, traditional roles which confine and restrict women in a society preoccupied with work frustrates and angers many women. Women now are demanding opportunities to develop their potential, to earn success, to assume leadership, and to acquire power (Bardwick, 1979). This investigation focused on achieving women to better understand their characteristics.

Review of Related Literature

The literature and research in the areas pertinent to this study concern achievement motivation, fear of success, and attribution theory. These areas pertain to women's achievement in relation to how they perceive themselves.

Achievement Motivation

There are many criticisms (Bardwick, 1971; Farmer, 1976; Stein & Bailey, 1973) relative to the very nature of research on women's achievement. One issue revolves around studying male achievement motivation and generalizing the results to females. Achievement motivation theory research typically concludes that there is a lack
of achievement motivation or the presence of an affiliation motivation in females. Stein and Bailey (1973) contended that this is a misinterpretation of findings. Rather, they believe, the difference is in the area of cultural definitions of activities and interests of females. Specifically, the primary feminine skill is social skill wherein many females would perceive situations of a social nature as achievement situations. Thus, within a feminine role, a female may be striving to achieve standards of excellence. Achievement motivation as it is routinely studied is a traditionally masculine characteristic measuring intellectual or leadership skills.

Another area of achievement motivation that is in question relates to sex differences pertaining to age. Maccoby and Jacklin (1974) reviewed 58 studies on achievement motivation and suggested that differences in self-confidence in academic achievement first appear in college. Alper (1974), in a review of women and achievement motivation, referred to an illusive quality in female achievement. She reported on a study she carried out in this area where she did find that women with nontraditional orientations scored higher on achievement motivation than women with traditional female orientations. Bardwick (1971) suggested that age is not necessarily a factor since females of all ages experience uncertainty in striving to achieve and affiliate with others which creates ambivalence. The views of Alper (1974) and Bardwick (1971) did not support Maccoby and Jacklin's (1974) conclusion that significant achievement motivation differences between sexes are not apparent until college.
Hoffman (1975) discussed early childhood development of achievement motivation. She attributed differences in males and females to task orientation and affiliation orientation, respectively. Hoffman believed that girls' makeup does not include qualities which constitute top performance. Girls want approval and work for good grades to perform well in school, from elementary through college, in order to get it.

Hoffman (1975) cited research studies on child rearing where independence and achievement training are fostered in male children and dependence and a need for protection, rather than achievement training, are fostered by parents in female children. Though females are sturdier at birth than males, and remain developmentally ahead when entering school, females are not encouraged to be independent and to achieve in task-oriented situations. The rewards for females are usually focused on love and approval of parents, teachers, and peers. Females, then, have lower levels of self-confidence academically than males and are less competitive (Maccoby & Jacklin, 1974).

In their review of achievement motivation research, Stein and Bailey (1973) indicated that females were lower risk takers, more anxious about failure, and more inclined to take responsibility for failures. In addition, even when work performance is comparable, women are perceived as less competent and, therefore, they themselves have lower expectancies of success.

In a study intended to examine characteristics and contributions of women doctorates, Simon, Clark, and Galway (1975) found
that the female doctorate publishes as much as her male counterpart (more if she is married), is sought after as a consultant, and is involved in professional organizations in her field. However, even though professionally productive, the female doctorate is not allowed equal prestige among her male colleagues, and often is not taken seriously.

Porter, Geis, and Jennings (1979) studied women as leaders. They hypothesized that females would not be viewed as leaders in mixed-sex situations because of nonconscious discrimination. Stimulus cue slides were presented to 448 female and male subjects which showed women seated in a traditional position of leadership at the head of the table. Women were perceived as contributing less and possessing fewer leadership attributes than males regardless of seating arrangements.

These studies are an indication that, even if women do exhibit achievement motivation and qualities, external inhibitors may not encourage continued growth and opportunity. Maccoby and Jacklin (1974) asserted that a high-level achievement for anyone results from lengthy training, including apprenticeships, and promotional steps. Those orderly steps and many of the required initial opportunities for training have been open primarily to men.

In summary, more research is needed on achievement motivation in women. It is clear, however, that if women are not perceived as leaders, their motivation to achieve is purely academic.
Fear of Success

In a now well-known study by Horner (1975), a concept referred to as "Motive to Avoid Success" was examined. It was hypothesized that women more often than men would experience motive to avoid success—frequently referred to as "Fear of Success" (Macdonald & Hyde, 1980). The motive to avoid success was conceptualized as the individual expecting negative consequences as a result of achieving and, thereby, becoming anxious. The negative consequences expected by the female were either social rejection or feelings of being unfeminine, or both. Horner pointed out that the motive to avoid success was not to approach failure or wanting to fail, but that expressing tendencies which are achievement directed arouses anxiety relative to the expected negative consequences. The study involved a Thematic Apperceptive Test (TAT) with verbal cues rather than pictorial cues. Subjects were 178 undergraduate college students, 90 females and 88 males. Horner found that only 10% of the males but 65% of the females wrote success-avoidant imagery stories, with females writing in response to female cues and males writing in response to male cues. The conclusion drawn by Horner was that achievement behavior was inhibited in able women because of the internalized notion that femininity and individual achievement are mutually exclusive.

Macdonald and Hyde (1980) addressed the controversial nature of Horner's (1975) conclusions because of questions in the literature relative to reliability and validity as well as the failure to
replicate findings. Because the method used by Horner was a projective measure, several objective measures were used. Macdonald and Hyde conducted a factor analytic study of Horner's instrument and several other instruments purporting to measure fear of success to investigate the fear of success construct. Though the various measures did not always appear to be measuring the identical trait, sex differences in all of the fear of success measures revealed that some phenomenon existed. Consistently, females demonstrated more negative attitudes about success than did males.

Williams (1977) indicated that most studies do not directly test the relationship between fear of success and ability and that conclusions cannot be made about highly able women and the avoiding-success motive. Instead, she supported Hoffman's (1975) theory that female children are not encouraged to strive for achievement and independence in the same risk-taking manner as are male children.

In summary, research shows that there are differences in females and males in measuring fear of success whether using objective or projective techniques. The definitive reason for the difference, however, remains unclear. It is hypothesized that socialization may be the single most important variable.

**Attribution Theory**

An attributional model of achievement by Weiner (1972) has been extensively researched. The theory is that one's own or others' performance outcomes in achievement situations are attributable to one or more of four causes—ability, effort, luck, and task
difficulty. Motivational significance results from these attributions and impact subsequent achievement-related behavior. Most research in the area of causal attribution has primarily employed male subjects (Carlson & Latta, 1980).

Deaux and Farris (1977) studied male and female causal attribution and found that generally success by males is attributed more to ability, both self and others, than success by females. Female success, however, is attributed more to effort, luck, or task ease. The reverse was true regarding failure. The cause of failure for males was usually attributed to task difficulty or lack of luck or effort. Failure on the part of females was attributed to lack of ability. This study also showed that males evaluated their performance even higher if the task was sex linked and females were more likely to use luck as an explanation of performance regardless of how the task was defined.

In another study on male and female causal attribution on sex-linked tasks, McHugh, Fisher, and Frieze (1975) found that, in comparing the sexes, females rating an intellectual task perceived it easier following success, slightly more difficult following failure, and more difficult following a neutral outcome. The reverse pattern for the sexes was obtained when the identical task was defined as a measure of social skill.

In a study of female high achievers, which included several doctorates, Clance and Imes (1978) investigated a concept which they called "The Imposter Phenomenon." This concept refers to the individual's internal experience of phoniness and that current success
is almost a fluke. In other words, luck or someone's (a professor, for example) inability to see that they are not as capable as appearance would indicate is the reason for their having achieved success. These individuals continually fear that their inadequacies will eventually be revealed. Clance and Imes concluded that, though these feelings are probably experienced by men, they are much more common and experienced to a greater degree by women.

There are studies (Carlson & Latta, 1980; Miller, 1976) that have failed to support some of the previous research on attributional pattern differences in males and females. Other studies (Feather & Simon, 1973; Levine, Reis, Sue, & Turner, 1976; Nicholls, 1975) found evidence of interactions between sex and other variables such as femininity/masculinity of the task as well as task outcome.

In summary, mixed findings in research data may be the result of differences within individuals. Frieze (1975) believed that high-achieving women are different in numerous ways than traditional women because of their motivation to succeed and hard work toward that end. Frieze also indicated that "achievement itself is not considered feminine by most people in our society" (p. 166).

Following are specific studies which investigated the three areas of achievement motivation, causal attribution of success and failure, and fear of success in relation to sex-role orientation.

In a recent study (Henschen, Edwards, & Mathinos, 1982) on achievement motivation and sex-role orientation, high school female track and field athletes and nonathletes were administered Mehrabian's Scale of Achieving Tendency and the Bem Sex-Role
Inventory to investigate differences between the two groups. Achievement motivation among the female athletes was significantly greater than the female nonathletes. Scores of athletes on the Bem Sex-Role Inventory were higher on the masculine and androgynous scales, while the nonathletes scored higher on the feminine and undifferentiated scales. Henschen et al. (1982) concluded that there may be two reasons for the difference. One may be that the athletes were part of an environment which allowed the high need for achievement to be expressed. In addition, the competitive nature of track and field activities may encourage the expression of achievement motivation which may then be generalized to other areas of the females' development.

As indicated earlier, there have been numerous studies on males and females pertaining to attributions for success and failure. Welch and Huston (1982) hypothesized that androgynous females and feminine females would differ in their experience of success or failure; and consequently, androgynous females would outperform feminine females on subsequent achievement tasks. There was no difference in the two groups (n = 75, feminine group; n = 72, androgynous group) to initially solve the experimental tasks presented. When some of the subjects in the groups were pretrained and experimentally manipulated to succeed or fail, the androgynous females were found not to be affected by failure. Additionally, success induction facilitated problem-solving behavior in the sample. Feminine females, on the other hand, were not affected by success but were retarded by failure. The causal attributions of
the groups also differed. Failures among the androgynous subjects were attributed to an external factor, i.e., task difficulty, whereas success was internalized as ability. In contrast, feminine females attributed success or failure about equally to the two factors for both success and failure. Welch and Huston suggested that these differences may be due to the higher self-esteem found in androgynous women. In addition, they indicated the possibility that research showing feminine women to be more depressed than androgynous women may account for attributional differences.

Gayton, Havu, Barnes, Ozman, and Bassett (1978) hypothesized that androgynous and sex-reversed (high masculine) females would evidence less fear of success than feminine or undifferentiated females. The subjects were 128 female undergraduate students who completed a fear of success instrument and the Bem Sex Role Inventory. Psychologically androgynous and sex-reversed females indicated significantly less fear of success than did feminine or undifferentiated females. The authors concluded that females who are androgynous experience less anxiety related to negative consequences associated with success and would experience greater self-esteem and mental health.

In another study investigating the relationship of fear of success and sex-role orientation, Major (1979) sampled 218 female undergraduates at Purdue University using the Bem Sex Role Inventory and a measure of achievement, fear of success, and performance. Major hypothesized that androgynous individuals would indicate less fear of success than sex-typed (high masculine or high feminine)
individuals. She also hypothesized that androgynous or sex-reversed females (both high masculine) would evidence higher achievement motivation and performance than feminine females (low masculine). As was predicted, the scores on the fear of success measure were higher for the sex-typed female (high masculine or high feminine) than for the androgynous female. However, the highest fear of success scores occurred in the sex-reversed group (high masculine). Major speculated that the high-achieving individual with a high masculine score may reject the characteristics which are feminine but experience negative consequences not encountered by women who are achieving but still embrace feminine characteristics. Analysis of the achievement motivation and performance confirmed the hypothesis that androgynous and sex-reversed females would score higher than females who rejected masculine characteristics (sex-typed and undifferentiated). The results indicated that androgynous and sex-reversed females differed significantly in fear of success but both were high in achievement motivation and performance. Major speculated that there may be a curvilinear relationship between the least and most fearful of success being the ones who are highest in achievement motivation.

Recently, Kearney (1982) pointed to the conflicting results found in the fear of success research in relation to sex role. She administered the Bem Sex-Role Inventory and a fear of success scale to 101 females. The results showed a significant relationship between high masculinity and low fear of success, while femininity when related to fear of success showed no significance. Kearney
suggested that "Apparently, females who recognize masculine characteris­
tics as an integral part of their personality feel more com­
fortable than their sex-role-congruent counterparts in achievement-
oriented situations" (p. 558). Less pressure from societal norms to
conform to a noncompetitive stance is felt by women with masculine
traits, she contended. Success-related goals are acceptable behav­
ior to these females who are, in turn, less likely to fear success.

Differences in background and personality have been cited as
contributing to women's achievement motivation and success in pro­
fessional careers. Hennig (1974) studied 25 top women executives in
the United States. These women were either presidents or vice
presidents of nationally recognized, male-oriented, business organi­
zations of mid to large size. Hennig's study was an in-depth exami­
nation of the women's backgrounds and experiences in their climb for
success. Hennig believed that their persistence and competitiveness
were considerably affected by family dynamics. She found that all
subjects were first born and either an only child or the eldest of
an all-girl family. The parents were educated and middle class,
aspiring upward. Mothers of these women were primarily homemakers
and relationships with their mothers were viewed as typical. The
relationships with their fathers were, for the majority, atypical in
that they were more supportive, closer, warmer, with greater amounts
of sharing between the two. These women were encouraged to partici­
pate in active sports and to explore nontraditional roles. While
their femaleness was valued, so were competition and achievement.
Sex-role orientation was not familially defined for these subjects,
and external pressure did not make them aware of this conflict until they reached adolescence.

A new study on professional women by Metzler-Brennan (cited in Elias, 1984), a psychologist at the University of Kansas, reported that young females who are "tomboys" are more likely to have independent attitudes and become high-powered professionals than are their female playmates who are considered feminine. The findings were the result of the author's study of 63 female professionals' and 62 female homemakers' elementary, high school, and college years. In addition, she assessed career choices and sex-role attitudes of the women. As girls, those who had more traditional goals—homemaker, teacher, or nurse—were more likely to end up in those areas. Conversely, those girls with more nontraditional goals—doctor or politician—were more likely to be employed in those positions in their 30s. The study also showed that the less traditional-oriented women nonetheless, by adulthood, possessed traditionally feminine characteristics such as sensitivity, nurturance, and listening ability, while maintaining their assertive abilities. Metzler-Brennan suggested that social support encouraging females to be feminine while growing up may make it easier to acquire those characteristics at a later time. Bem (1976) also believed that women have been reinforced for having and maintaining femininity. She suggested that the significant issue may be the degree to which masculinity traits have been acquired and developed in females.
Other researchers (Astin, 1969; Block, Von der Lippe, & Block, 1973; Constantini & Craik, 1972; Epstein, 1968; Standley & Soule, 1974) have examined background characteristics of women in nontraditional or male-dominated occupations and have found many of the similarities that Hennig (1974) found in her research on women executives. In addition, however, these other studies have indicated that being foreign born and having mothers who are employed are other commonalities among these women.

In an extensive review of literature pertaining to women in nontraditional occupational areas, Ashburn (1977) addressed their achievement motivation by referring to two major personality factors characterizing these women. One was a high orientation to achieve complicated by variables such as fear of success, need for affiliation, and the individual's internalized stereotyped view of the feminine image. The second related to a high need to achieve, balanced or enhanced by a strong desire for individuality and autonomy.

A study by Tangri (1972) supported this conclusion. She studied 200 female college seniors to determine if there was a relationship between non-sex-typical occupational choices and personality and background of these women. Tangri found that the women choosing male-dominated professions differentiated most strongly from the more traditional women in the personality-motivational variables. The more nontraditional females are more individualistic and autonomous and have high internal demands to achieve.
Rossi (1965a) studied women students who intended to enter nontraditional fields and compared them to homemakers to examine differences. She found that the occupationally nontraditionally oriented women were less nurturant and dependent, had looser family ties, and less intense personal relationships than the homemakers.

In another article by Rossi (1965b), she pointed out that not only were there no studies of a psychological nature relating to women in the field of science which compare to those detailed studies of male scientists, but also there were none in any professions which are male dominated. Ashburn (1977) concurred with this assessment of available data. From the paucity of research available, however, she suggested that the characteristics of nontraditional women include "independence, feelings, intelligence, and ego strength. These women are more independent than norm women. They are not as sociable or 'groupy'; and they are more radical and adventurous" (p. 14). Stein and Bailey (1973) stated that many personality attributes generally defined as feminine—lack of competitiveness, nonassertive behavior, and dependence—are not those constituting characteristics generally ascribed to achievement-oriented individuals.

Women are often viewed as less ambitious and less committed to their jobs than men in similar positions according to Ashburn (1977). She cautioned, however, that studies generally use working hours and psychological orientation of career importance as dependent variables. These variables tend to obscure evidence regarding women's commitment and ambition because of the familial orientations
which are socialized into women, e.g., years spent in child rearing.

Epstein (1974) wrote:

More typically, however, women are encouraged to fail. The "new" woman is a perfectly balanced person who does a little of everything—a little writing and research, a little gourmet cooking, a little loving, a little mothering. But nowhere is she expected to rise to the top of her profession or field of work. (p. 20)

Summary

In summary, there are mixed and confusing results in the areas of achievement motivation, fear of success, and attribution theory as they relate to women. In addition, there are few studies of adult women and even fewer of female professionals. Metzler-Brennan's (cited in Elias, 1984) study did examine professionals in relation to homemakers and their sex-role orientation and found that recollections of early childhood memories indicated differences in the activities and feminine traits of the two groups of women. Many writers (Bem, 1976; Hennig, 1974; Welch, 1979) have agreed that those females who possess traditionally masculine characteristics are not necessarily unfeminine or without traditionally feminine characteristics. Stein and Bailey (1973) cautioned that findings indicating the manifestation of masculine characteristics in high-achieving females should not be interpreted as confirmation of stereotyping the achieving woman as unfeminine. Stein (1971) reported in a study a zero-correlation between the two dimensions of masculinity and femininity.
CHAPTER II

DESIGN AND METHODOLOGY

It is the purpose of this chapter to present a description of the sample population, the procedures used in the acquisition of subjects, the instrumentation used in this study, the details of the procedures used in the collection of data, the hypotheses, and the data analysis techniques used.

Population and Sample

The population for this research study consists of all women who are participants in the Kalamazoo Network, a group of over 600 women who are viewed as high achievers in the Kalamazoo geographic area. Examination of census data provided by the W. E. Upjohn Employment Institute (1983) of Kalamazoo supports their status as high achievers when the numbers of professional women versus service-related and nonprofessional occupations with women are compared:

Professional:

- Executive, administrative, and managerial including management related: 2,887
- Professional specialty (engineers, architects, surveyors): 41
- Math and computer specialists: 190
- Health and diagnosing (physicians, dentists, veterinarians): 61
<table>
<thead>
<tr>
<th>Occupation</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers, post secondary</td>
<td>584</td>
</tr>
<tr>
<td>Health assessment and treating (nurses, pharmacists, occupational and physical therapists)</td>
<td>2,004</td>
</tr>
<tr>
<td>Teachers and counselors, except post secondary</td>
<td>3,192</td>
</tr>
<tr>
<td>Social scientists (economists, psychologists, sociologists)</td>
<td>83</td>
</tr>
<tr>
<td>Social, recreation, and religious workers</td>
<td>524</td>
</tr>
<tr>
<td>Lawyers and judges</td>
<td>25</td>
</tr>
<tr>
<td>Health technologists and technicians</td>
<td>1,219</td>
</tr>
<tr>
<td>Sales representatives, finance and business services (except retail)</td>
<td>806</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11,616</strong></td>
</tr>
</tbody>
</table>

**Service related:**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales workers, retail, and personal services</td>
<td>4,017</td>
</tr>
<tr>
<td>Administrative support (including clerical)</td>
<td>13,911</td>
</tr>
<tr>
<td>Service occupations, public and private</td>
<td>9,722</td>
</tr>
<tr>
<td>Production (except managerial)</td>
<td>4,665</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>32,315</strong></td>
</tr>
</tbody>
</table>

As is shown by the data, nearly three times as many service-type occupations as professional positions are held by women in Kalamazoo County.

Most of the women participating in the Kalamazoo Network are in professional-type positions with considerable education when
compared with service-type positions (few are homemakers). Demographic data results (see Appendix A) indicate that 93% were full-time or self-employed workers, 2% were homemakers, and 5% were part-time workers. Educationally, 48% had a master's degree or above, 37% had at least a bachelor's degree, and 15% had less than a bachelor's degree.

In addition to the statistics which provide support for the statement that this is a high-achieving group, the Kalamazoo Network Directory (1983) states the purpose of the organization in its Bylaws:

The objectives of this educational organization shall be to facilitate the exchange of experiences and ideas in order to promote self-growth for professional women, women in management, and women with career aspirations. Specifically, the Network will aim to:

Promote educational opportunities and attitudes that lead to managerial, professional and career growth.

Aid members in dealing with the unique problems faced by women achieving career goals.

Provide a contact network for women to draw upon the resources of one another. (p. iii)

The study sample consisted of 75 women randomly selected from the Kalamazoo Network; their ages ranged between 23 and 59.

Sampling Procedure

A random sample of 100 names was taken from the Kalamazoo Network Directory, using a table of random numbers. The directory is divided into two segments, the alphabetical listing and the specific occupational area listing. The former was used to assign
numbers, thus, resulting in a cross representation of occupational areas and levels. Addresses and phone numbers for the sample were given either for home or place of employment. The option listed for the individual was used as the address to which to mail the questionnaire materials.

Follow-up telephone calls were made requesting individuals to return questionnaires. Two weeks after the indicated response deadline, another follow-up telephone call request was made to encourage return of the materials. A second mailing of 15 questionnaires was made for those who never received the first mailing or had misplaced the first. Ten individuals could not be reached by telephone or mail.

Three weeks following the initial deadline, any additional returns were omitted because the data had been entered into the computer bank.

**Instruments**

The materials mailed to each subject included a cover letter, a demographic questionnaire, the Bem Sex-Role Inventory (BSRI), and an Informed Consent Form. Copies of these materials are located in Appendix B.

**Demographic Questionnaire**

Participants were asked to indicate age, work role, education, marital status, and if there were any children in the home. The data were used to determine occupational and educational achievement
levels as well as information about the sample in the study. Results of the questionnaire are located in Appendix A.

**Bem Sex-Role Inventory**

This instrument was developed in the mid-1970s to provide separate femininity and masculinity scale scores as a research measure of psychological androgyny.

The BSRI, a 60-item self-report inventory, consists of a 20-item femininity scale, a 20-item masculinity scale, and a 20-item neutral scale. Appendix C shows the 20 items for each scale. Bem (1974) defined the neutral items as neither masculine nor feminine, but socially desirable or undesirable for both. Individuals are instructed to indicate on a 7-point scale how well each of the characteristics best describes herself or himself. The range is from 1 ("Never or almost never true") to 7 ("Always or almost always true").

The BSRI Manual (Bem, 1981) reported that the original pool of 200 characteristics was developed by Bem and several students. Undergraduate female and male judges, with equal n's, were asked to rate them as stereotypically desirable for American society males and females. Subsequently, the number of characteristics was reduced to 20 of the most socially desirable or undesirable for each gender. In addition, 20 "filler items," those designated as neutral, were included as a set because they were judged to be no more or less socially desirable for either sex.
The normative data (Bem, 1981) are based on 476 male and 340 female Stanford University undergraduates in 1978 and 444 males and 279 females, also Stanford undergraduates, in 1973. Reliability data for the two samples reported by Bem show reliability regarding internal consistency of the BSRI ranging from .75 to .87. The BSRI Manual reported test-retest reliability measures from .76 to .94. The relationship between femininity and masculinity scores shows the independence of the two dimensions with correlations as low as -.14 and -.05.

Construct validity studies cited in the BSRI Manual (Bem, 1981) refer to empirical research in which male and female subjects were chosen, based on their BSRI scores, to perform tasks. Sex-typed individuals were more likely to prefer traditionally sex-linked activities than androgynous or cross-sexed individuals. Other similar construct validity studies, according to the Manual:

provides strong validation for the BSRI by supporting the central hypothesis that nonandrogynous individuals restrict their behavior in accordance with cultural definitions of desirable behavior for women and men significantly more often than do androgynous individuals. The studies demonstrate that, in fact, the BSRI does identify the groups of individuals we set out to study. (p. 16)

Recently the BSRI has been under scrutiny and questions have been raised as to its validity as a measure of androgyny. Gaudreau (1977) did a factor analysis and contended that the instrument does represent independent traits attributable to either males or females:

The BSRI does not appear to suffer from the same weakness as traditional masculinity-femininity scales; that is, (a) the scale successfully differentiated between
masculine males and feminine females, and (b) when items were factor analyzed, they loaded on two common factors. Although more research on the measurement of masculinity and femininity is needed, it appears that the conceptualization of these traits as two separate dimensions rather than a single bipolar dimension is a step in the right direction. (p. 302)

In another factor analysis study, Gruber and Powers (1982) concluded that BSRI items accurately represent masculine and feminine dimensions. Regarding recommendations of other researchers to exclude some items because they fail to load substantially on one primary factor of several, Gruber and Powers maintained that the power of the BSRI to classify individuals would be diminished.

Criticisms regarding the BSRI generally revolve around the validity of the term "androgyny" as measured by such an instrument and the independence of the traits "masculine" and "feminine" rather than as a bipolar dimension. For example, in a factor analytic study, Whetton and Swindells (1977) questioned the concept of the two sex dimensions of masculinity and femininity. Their conclusion was that the terms may be too simplistic and, thus, question the validity of the concept of androgyny.

As to the development of the variables, desirability ratings, Strahan (1975) questioned the format requesting judges to construe by their own definitions the meaning of "desirable." In other words, ambiguity is a significant factor according to Strahan.

In summary, the validity studies are mixed. Though some researchers believe that androgyny has not been adequately defined, others indicate that the instrument does represent separate masculine and feminine dimensions.
Procedures

Initially a pilot study of eight was carried out to determine the effectiveness of the demographic questionnaire and the utility of the BSRI. The only change in the demographic questionnaire before finalization was the format of questions related to employment status. There were no perceived difficulties in the use of the BSRI.

Once the random sampling was completed, the materials were mailed to the 100 subjects. These materials included a cover letter, the demographic questionnaire, the Bem Sex-Role Inventory, an Informed Consent Form, and a stamped, self-addressed return envelope. Because of the confidential nature of the demographic questionnaire data requested of individuals, each was asked to sign the Informed Consent Form indicating their willingness to divulge information to be used for grouped analysis of data. Seventy-five of the 100 individuals responded, and all responses were sufficiently completed for use in this study. The data were coded by the investigator, keytaped by a trained keytaper, and entered into the Dec-System 10 computer by a trained computer operator for analysis.

Data obtained from the demographic questionnaire and scores on the BSRI represent the variables used for analyses. The demographic data provided level of education completed, current occupational position title, times promoted, and salary level which were all used to determine the level of achievement of each subject. The data results are located in Appendix A.
The following criteria were used to determine the level of achievement for subjects using the demographic questionnaire data:

1. Initially subjects were classified into level of education completed:

   "2 yrs. + college" or less = Level 1
   "Bachelor's" or "Master's" = Level 2
   "Post Master's" or "Doctorate" = Level 3

2. Some subjects were placed in a different category level depending on position title, salary range, and times promoted. If, for example, an individual had 2 years of college, was vice president of a bank, making $30,000, and promoted several times in 5 years, a Level 3 was assigned.

3. If self-employed ("Owner/Manager" or "Owner/President," for example), subject may have placed in a higher category level than educational level would have indicated.

The BSRI scores are mean scores for each subject. Since determining androgyny, per se, was not the intent of this study, the median-split for determining the four categories of androgynous, masculine, feminine, or undifferentiated, as suggested by the BSRI Manual (Bem, 1981), was not used. The Manual does indicate medians and means. Because this study examined correlations between achievement and traditionally "masculine" and traditionally "feminine" characteristics, only means of each scale were used.

Statistical Hypotheses

Two research hypotheses were formulated to test the significant questions raised in the review of the literature. They are stated
here in research form and will be stated in null form in Chapter III.

Research Hypothesis 1

There is a relationship between levels of achievement in women and self-reported masculine characteristics.

Research Hypothesis 2

There is a relationship between levels of achievement in women and self-reported feminine characteristics.

Statistical Analysis

The chi-square nonparametric test (Hinkle, Wiersma, & Jurs, 1979) was used to determine the possible influence on achievement levels of three variables from the demographic data. Crosstabulations included achievement level and length of service, achievement level and marital status, and achievement level and children in the home.

Correlations between achievement and masculinity/femininity were obtained using the Spearman rho formula (Hinkle et al., 1979). Hypothesis 1 was tested by calculating the correlations between the ordinal level of achievement and the mean masculine scores of the BSRI. Hypothesis 2 was tested by calculating the correlations between level of achievement and the mean of feminine scores on the BSRI. A probability of .05 for committing a Type I error was used.
The statistical package for the Social Sciences Version M was used in the computer analysis of data.
CHAPTER III

ANALYSIS AND INTERPRETATION OF DATA

The purpose of this study was to determine a possible relationship between levels of achievement and masculine (instrumental orientation) or feminine (expressive orientation) self-reported characteristics in women. The results of data analysis and a discussion of the results are presented in this chapter.

Description of Sample and Comparison Group

The sample results are based on a return rate of 75% of the 100 mailed questionnaires. Summarized in Table 1 are the data from the demographic questionnaire. (See Appendix A for more comprehensive statistics.) The results indicate only 2 of the 75 subjects were homemakers and 4 were employed part time. More than half of those who were paid, full-time employees or self-employed were earning at least $20,000 annually. Educationally, only 15% had less than a bachelor's degree, while nearly half (48%) had completed a master's degree or more. More women indicated having no children in the home than did those indicating the presence of children. Approximately half (50.7%) of the subjects were married. The levels of achievement breakdown of the 75 women were:

- Low = 10
- Medium = 46
- High = 19

34
<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age:</strong> Mean = 38.4</td>
<td></td>
</tr>
<tr>
<td><strong>Level of education:</strong></td>
<td></td>
</tr>
<tr>
<td>High school diploma</td>
<td>2</td>
</tr>
<tr>
<td>2 yrs. + college</td>
<td>9</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>28</td>
</tr>
<tr>
<td>Master's degree</td>
<td>24</td>
</tr>
<tr>
<td>Post master's degree</td>
<td>6</td>
</tr>
<tr>
<td>Doctorate</td>
<td>6</td>
</tr>
<tr>
<td><strong>Work role:</strong></td>
<td></td>
</tr>
<tr>
<td>Full time</td>
<td>56</td>
</tr>
<tr>
<td>Self-employed</td>
<td>13</td>
</tr>
<tr>
<td>Part time</td>
<td>4</td>
</tr>
<tr>
<td>Homemaker</td>
<td>2</td>
</tr>
<tr>
<td><strong>Marital status:</strong></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>38</td>
</tr>
<tr>
<td>Never married</td>
<td>14</td>
</tr>
<tr>
<td>Divorced</td>
<td>21</td>
</tr>
<tr>
<td>Separated</td>
<td>2</td>
</tr>
<tr>
<td><strong>Children in the home:</strong></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>43</td>
</tr>
<tr>
<td>Yes</td>
<td>30</td>
</tr>
<tr>
<td><strong>Income level:</strong></td>
<td></td>
</tr>
<tr>
<td>0 to 5,000</td>
<td>4</td>
</tr>
<tr>
<td>5,001 to 10,000</td>
<td>4</td>
</tr>
<tr>
<td>10,001 to 15,000</td>
<td>8</td>
</tr>
<tr>
<td>15,001 to 20,000</td>
<td>16</td>
</tr>
<tr>
<td>20,001 to 25,000</td>
<td>18</td>
</tr>
<tr>
<td>25,001 to 30,000</td>
<td>8</td>
</tr>
<tr>
<td>30,001 to 35,000</td>
<td>8</td>
</tr>
<tr>
<td>35,001 to 40,000</td>
<td>2</td>
</tr>
<tr>
<td>40,001 +</td>
<td>7</td>
</tr>
</tbody>
</table>
Bem's 1978 normative data (Bem, 1981) was used as a comparison group. Bem's sample was 340 female undergraduate students at Stanford University. This group, then, was much younger and not yet involved in careers as was the sample group.

Illustrated in Tables 2 and 3 are means and standard deviations of the BSRI norm group of females (Bem, 1981) and the means and standard deviations of the study sample group.

Table 2
Means and Standard Deviations for Comparison Group and Sample Group

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Norm group</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feminine</td>
<td>340</td>
<td>5.05</td>
<td>.53</td>
</tr>
<tr>
<td>Masculine</td>
<td></td>
<td>4.79</td>
<td>.66</td>
</tr>
<tr>
<td><strong>Sample group</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feminine</td>
<td>75</td>
<td>4.83</td>
<td>.52</td>
</tr>
<tr>
<td>Masculine</td>
<td></td>
<td>5.17</td>
<td>.68</td>
</tr>
</tbody>
</table>

The sample group had a higher mean score on the masculine scale and a lower mean on the feminine scale than did Bem's norm group of college-age females (Bem, 1981). This may be attributed to an overall high-achieving sample population for this study. However, in a breakdown of levels of achievement in the sample group, the lowest level (which includes "2 years + college" or less) had a higher mean
on the feminine characteristics and a lower masculine mean. Conversely, both the medium level and the high level had lower feminine and higher masculine mean scores than did the comparison group.

Table 3
Means and Standard Deviations for Comparison Group and Sample Group Achievement Levels

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norm group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feminine</td>
<td>340</td>
<td>5.05</td>
<td>.53</td>
</tr>
<tr>
<td>Masculine</td>
<td></td>
<td>4.79</td>
<td>.66</td>
</tr>
<tr>
<td>Sample group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low level:</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feminine</td>
<td></td>
<td>5.29</td>
<td>.31</td>
</tr>
<tr>
<td>Masculine</td>
<td></td>
<td>4.71</td>
<td>.59</td>
</tr>
<tr>
<td>Medium level:</td>
<td>46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feminine</td>
<td></td>
<td>4.82</td>
<td>.49</td>
</tr>
<tr>
<td>Masculine</td>
<td></td>
<td>5.18</td>
<td>.66</td>
</tr>
<tr>
<td>High level:</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feminine</td>
<td></td>
<td>4.62</td>
<td>.53</td>
</tr>
<tr>
<td>Masculine</td>
<td></td>
<td>5.44</td>
<td>.62</td>
</tr>
</tbody>
</table>

The chi-square nonparametric test was used for the demographic questionnaire data to determine if some factors may influence the achievement levels attained by the subjects. Crosstabulations were
run on: achievement level and length of service, achievement level and marital status, and achievement level and children in the home. Achievement level and length of service was the only test indicating significance at the .05 level. Summarized in Tables 4, 5, and 6 are the data for this analysis.

In summary, the results of the chi-square tests do not indicate a significant influence of marital status or the presence of children in the home on achievement level. The only significant influence appears to be length of service, which could be expected to be a factor.

Table 4
Comparison of Level of Achievement and Length of Service of Female Achievers Sample

<table>
<thead>
<tr>
<th>Length of service</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>1 yr. or less</td>
<td>5</td>
</tr>
<tr>
<td>1 yr. but less than 2</td>
<td>0</td>
</tr>
<tr>
<td>2 yrs. but less than 5</td>
<td>2</td>
</tr>
<tr>
<td>5 yrs. but less than 10</td>
<td>0</td>
</tr>
<tr>
<td>10 yrs. plus</td>
<td>2</td>
</tr>
</tbody>
</table>

Note. Chi square = 17.39063 with 8 df. Significance = .0263.*

*p < .05.
### Table 5
Comparison of Level of Achievement and Marital Status of Female Achievers Sample

<table>
<thead>
<tr>
<th>Marital status</th>
<th>Achievement level</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>6</td>
<td>21</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>1</td>
<td>9</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Separated</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Divorced</td>
<td>3</td>
<td>14</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Chi square = 2.77643 with 6 df. Significance = .8363.*

*p < .05.

### Table 6
Comparison of Level of Achievement and Children in Home of Female Achievers Sample

<table>
<thead>
<tr>
<th>Children in home</th>
<th>Achievement level</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>5</td>
<td>19</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>25</td>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Chi square = 1.11750 with 2 df. Significance = .5719.*

*p < .05.
Subsequent to the computerized analysis of data, a follow-up telephone call was made to six randomly selected subjects of the 25% who did not respond to the mailing. The purpose of the follow-up was to establish whether those who did not respond to the mailed questionnaire could be determined to differ from those who did. Subjects were asked the questions from the demographic questionnaire and the results of the follow-up calls are illustrated in Appendix D. This group of six subjects gave similar responses to the study sample. The levels of achievement breakdown for the follow-up group were:

- Low = 0
- Medium = 4
- High = 2

The average age, educational level, marital status, income level, and work role statistics were nearly equal to those of the original sample group.

In summary, a comparison of the results from those subjects who responded to the mailed questionnaires (Table 1) and those who responded to the telephone follow-up (Appendix D) indicates that there is no evidence that the results of this study cannot be generalized to the population sampled.

Hypotheses

Two null hypotheses were tested to determine if the research hypotheses stated in Chapter II of a relationship between achievement levels and characteristics could be accepted.
Null Hypothesis 1

There is no relationship between level of achievement in women and self-reported masculine characteristics.

To test this null hypothesis, a Spearman rho correlation coefficient comparing levels of achievement and mean masculine scores from the Bem Sex-Role Inventory was used. The comparison resulted in a rho of +.230, significant at \( p < .05 \), which resulted in rejection of the null and acceptance of the research hypothesis.

Null Hypothesis 2

There is no relationship between level of achievement in women and self-reported feminine characteristics.

To test this null hypothesis, a Spearman rho correlation coefficient comparing levels of achievement and mean feminine scores from the Bem Sex-Role Inventory was calculated. The comparison resulted in a rho of -.402, significant at \( p < .05 \), which resulted in rejection of the null and acceptance of the research hypothesis.

In summary, both null hypotheses were rejected. There is evidence to suggest a relationship exists between the three levels of achievement and instrumental and expressive orientations.

Discussion

Both Research Hypotheses 1 and 2 were accepted because a significant relationship was found between levels of achievement and mean scores on the BSRI masculine and feminine scales for the sample.
group. Subjects perceived themselves as having more feminine characteristics in the lower levels of achievement and having more masculine characteristics in the higher levels of achievement.

Examination of the data results suggests that this high-achieving group perceives itself as possessing or maintaining feminine characteristics even as individuals achieve in the marketplace. These feminine characteristics are defined by Bem (1974) as the "expressive orientation." In addition, the data suggest that these same individuals perceive themselves as having more masculine characteristics which Bem defined as the "instrumental orientation."

It appears that levels of achievement in this group of high-achieving women constitute differences with a reversal in the feminine and masculine characteristics. The lower level of achievers see themselves as more feminine and less masculine than either the mid-level achiever or the highest-level achiever. The mid-level achievers see themselves as less feminine and more masculine than the lowest-level achiever, but more feminine and less masculine than the highest-level achiever. Finally, the highest-level achievers perceive themselves as more masculine than either the mid-level or lowest-level achievers, but less feminine than the two other levels.

In summary, the overall BSRI mean scores for the sample suggest a high instrumental orientation and the maintenance of an expressive orientation. This, compared to many research results which are generally carried out with college-age populations (Barnett & Baruch, 1978), suggests that women have found that the two orientations complement each other in the world of work in high achievers.
There is no indication from this study that high-achieving females relinquish the expressive orientation (feminine characteristics) to develop the more instrumental orientation (masculine characteristics). In other words, participants did not express perceiving themselves as having lost their femininity. This confirms what other investigators (Bem, 1976; Hennig, 1974; Stein & Bailey, 1973; Welch, 1979) have found using primarily college students.
CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study was intended to determine a possible relationship between levels of achievement in women and self-reported characteristics. After a review of the literature, it was hypothesized that those who were the higher achievers would report higher masculine (instrumental orientation) characteristics, and those who were lower achievers would report higher feminine (expressive orientation) characteristics.

Two instruments were mailed to participants. The Bem Sex-Role Inventory (BSRI), a 60-item self-report questionnaire with masculine, feminine, and neutral scales, was used to determine instrumental and expressive orientations. A demographic questionnaire was designed to establish levels of achievement.

Seventy-five women participated in the study. The population sampled was an organization of over 600 high-achieving women in the Kalamazoo area. Subjects were mailed the BSRI, the demographic questionnaire, a cover letter, and an Informed Consent Form. The null hypotheses were as follows:

1. There is no relationship between level of achievement in women and self-reported masculine characteristics.
2. There is no relationship between level of achievement in women and self-reported feminine characteristics.

Both null hypotheses were rejected. The evidence suggests there is a relationship between level of achievement and instrumental and expressive orientations in women. The high and medium level of achievement subjects had higher mean masculine scores and lower mean feminine scores than the low level subjects. The high level achievers had higher mean scores on the masculine scale and lower mean scores on the feminine scale than the medium level subjects. The lowest level achievers had lower masculine scores and higher feminine scores than the medium level achievers.

Conclusions

Bardwick (1979) believed that females, in order to become successful and be competitive, must acquire or develop qualities which are similar to males. Hoffman (1975) indicated that many studies show that female development centers on an affiliation orientation rather than a task orientation. Horner (1975) examined the concept referred to as fear of success which pertains to females experiencing anxiety due to the expectation of being perceived as or feeling less feminine as a result of achieving. Though Horner's conclusions have been questioned, other findings do show that women have more negative attitudes about success. Kearney (1982) suggested that women who possess more masculine traits feel less pressure to conform to traditional norms and, therefore, experience less fear of success.
It is with this background and the need for more research in the area of women and achievement that the present study concerning the relationship between women's perceptions of self and level of achievement is meaningful. There is evidence to suggest that there is a relationship between achievement level and feminine and masculine characteristics. The results of this study indicate that, the higher the level of achievement, the more masculine (instrumental) the women perceive themselves to be. Conversely, the lower the level of achievement, the more feminine (expressive) the women perceive themselves to be.

Stein and Bailey (1973) have indicated that findings showing the possession or manifestation of masculine characteristics in high-achieving women should not be interpreted as the lack of femininity in these women. This was confirmed in the present study. The feminine characteristics of the highest achievers reported in this study, though a lower mean score than the lowest achievers, were nonetheless maintained. Similar to Metzler-Brennaan's (cited in Elias, 1984) recent study, the women in this study show that the highest achievers have more independent attitudes but maintain some of the traditionally feminine characteristics, i.e., sensitivity, nurturance, and listening ability. It is believed that these women have developed characteristics which are complementary. This suggests that individuals with a high instrumental orientation (task oriented) can simultaneously possess an expressive orientation which is more people oriented. Since this group represents high achievers, many of which are extremely successful, it is apparent
that these women may represent the ideal. Work-related environments could improve with increasing numbers of individuals having or developing characteristics which include a balance of both orientations.

Recommendations

The need for further research in the area of women and achievement has been addressed in the literature. This study is only a small step in that direction. The value of this kind of research, however, is the fact that the results represent women who are already at the occupational development stage of life rather than at the occupational preparation stage, e.g., college level. Following are some suggestions to expand and integrate further studies.

One method to gain a better understanding of women and achievement is longitudinal studies. Researchers who could, on a continuing basis, study the influence of familial, educational, peer, and occupational factors, as well as the individual's response to those factors, would have a broader picture of achieving women. Some in-depth studies have examined successful women, but this has been primarily through their recollections of the past.

The population of the present study is an organization of high achievers. Similar research involving the general population is needed to determine whether there are differences among levels of achievement. More specifically, there needs to be an understanding of differences in those who have chosen nontraditional occupations and the more traditional ones.
Additional studies using an instrument such as the Bem Sex-Role Inventory in relation to achieving women are needed. It is recommended, however, that brief operational definitions for the items be developed to encourage consistency in responses. Also, the Bem Sex-Role Inventory is a self-report instrument. Perhaps it would be useful to study a population and couple the subjects' BSRI scores with others' perceptions of the subject, i.e., spouse/partner and a co-worker, also using the BSRI as a comparison.

Finally, there needs to be more research in the areas of the instrumental and expressive orientations in women as they relate to attribution theory, achievement motivation, and the fear of success concepts. This study suggests that higher achievement levels are accompanied by higher instrumental orientations. But this raises other questions. Do these women begin their occupational endeavors with the more instrumental orientation, or is much of it developed as they begin succeeding in their chosen careers? To what do these high achievers attribute their success? These and other questions should be the focus of further research on women and achievement.
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Major, B. Sex-role orientation and fear of success: Clarifying an unclear relationship. Sex Roles, 1979, 5, 63-70.

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APPENDICES
Appendix A

Demographic Data
### Demographic Data

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Range</th>
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<td>23-59</td>
</tr>
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<tr>
<td>High school</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2 yrs. + college</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>28</td>
<td>37</td>
</tr>
<tr>
<td>Master's degree</td>
<td>24</td>
<td>32</td>
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<tr>
<td>Post master's degree</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Doctorate</td>
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<td>8</td>
</tr>
<tr>
<td>Work role:</td>
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<td></td>
</tr>
<tr>
<td>Full time</td>
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<td>75</td>
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<td>Income level:</td>
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</tr>
<tr>
<td>$ 0 to 5,000</td>
<td>4</td>
<td>5</td>
</tr>
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<td>5,001 to 10,000</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10,001 to 15,000</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>15,001 to 20,000</td>
<td>16</td>
<td>21</td>
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<td>20,001 to 25,000</td>
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<td>25,001 to 30,000</td>
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<td>8</td>
<td>11</td>
</tr>
<tr>
<td>35,001 to 40,000</td>
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<td>3</td>
</tr>
<tr>
<td>40,001 and above</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Length of service:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 yr. or less</td>
<td>14</td>
<td>19</td>
</tr>
<tr>
<td>1 yr. but less than 2</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>2 yrs. but less than 5</td>
<td>25</td>
<td>33</td>
</tr>
<tr>
<td>5 yrs. but less than 10</td>
<td>12</td>
<td>16</td>
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<tr>
<td>10 yrs. plus</td>
<td>17</td>
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<td>Marital status:</td>
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<td>Married</td>
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<td>51</td>
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<tr>
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<td>14</td>
<td>18</td>
</tr>
<tr>
<td>Separated</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Divorced</td>
<td>21</td>
<td>28</td>
</tr>
<tr>
<td>Children in the home:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>30</td>
<td>41</td>
</tr>
<tr>
<td>No</td>
<td>43</td>
<td>59</td>
</tr>
</tbody>
</table>
Appendix B

Materials Mailed to Subjects
November 1, 1983

Dear Network Member:

I am writing to you to enlist your help in some research on women with career aspirations. This is for the purpose of completing a dissertation for a Doctorate in Counseling at Western Michigan University.

Because you are part of Kalamazoo Network and most likely have career aspirations of your own, your name was randomly selected from the Network Directory to participate in this study; and I very much need your assistance. I have worked extensively with women and find most would agree with the necessity and importance of more research regarding women. I am interested in looking at women's perceptions of themselves and am, therefore, using a self-report inventory. I hope you, too, see the need for further research and will contribute by completing and returning these materials to me.

Enclosed you will find 3 items. The first is the self-report inventory which is self-explanatory. Secondly, there is a Demographic Questionnaire. I realize that it may seem to delve into some personal areas. Please understand that the data will not be available to anyone other than myself. The results of data shown will be grouped in such a way that you could not be identified individually. The only way these instruments can be utilized is if no part is left blank. In addition, I am including a Consent Form which I need to have signed indicating your agreement to participate.

Completing these items won't take very long, and I think you might enjoy the self-report inventory. I know the tendency to put this aside "for now". I am asking, however, that if you don't have the time to do it immediately, that you do it as soon as possible.

I would like to have the items returned to me in the enclosed self-addressed, stamped envelope by November 1, 1983.

In advance, I very much appreciate your taking the time to assist me in this endeavor. If you have any questions or wish to discuss participation with me, please feel free to call me at 344-9457 (Home) or 383-0955 (W.M.U. Testing Services).

Sincerely,

Sandra K. Ragan

Enc. 4
INFORMED CONSENT FORM

I hereby agree to participate in a self-report study of women by Sandy Ragen, a Doctoral Candidate at Western Michigan University. I understand that any information will be used confidentially. I agree to fill out the questionnaire and authorize Sandy to analyze the data and report grouped analyses of data that preserves my right to privacy. Should I have any questions, I understand that they will be answered by the Candidate upon request.

(Signature)
DEMOGRAPHIC QUESTIONNAIRE

1. Age: _____

2. Educational level completed: (Circle one)
   - Less than high school 1
   - High school diploma 2
   - 2 yrs. + college 3
   - Bachelor's Degree 4
   - Master's Degree 5
   - Post Master's Degree 6
   - Doctorate 7

3. Present primary work role:

   Nonpaid (check one)         Paid (check one)
   a. Homemaker____          c. Self-employed____
   b. Volunteer____          d. Full time ______
                             e. Part time _____

   If paid employment, how long with current employer or self-employed?
   a. 1 yr. or less
   b. 1 yr. but less than 2________
   c. 2 yrs. but less than 3________
   d. 5 yrs. but less than 10________
   e. 10 yrs. +________
   f. Not applicable________

   How many times have you been promoted with this employer?
   a. 0____
   b. 1____
   c. 2____
   d. 3____
   e. 4 or more____
   f. Not applicable____

   If paid employment, what is your position title?

4. Current Income (Yours only):

   $ 0 to 5,000________          $20,001 to 25,000________
   5,001 to 10,000________       25,001 to 30,000________
   10,001 to 15,000________      30,001 to 35,000________
   15,001 to 20,000________      35,001 to 40,000________
   20,001 and above________

5. Life-style information:

   1. Married____
   2. Never Married____
   3. Separated____
   4. Divorced____
   5. Widowed____

   Are there any children living with you?
   Yes____ No____

6. Occupation of your Mother: ________________________________

7. Occupation of your Father: ________________________________
**SELF-REPORT INVENTORY**

**Directions:** Using the following characteristics, please describe yourself on a scale from 1 to 7. How true is each of these characteristics of you? Place your number in the box to the right of each item. Please do not leave any characteristics unmarked.

**Scale:**

1 = Never or almost never true  
2 = Usually not true  
3 = Sometimes but infrequently true  
4 = Occasionally true  
5 = Often true  
6 = Usually true  
7 = Always or almost always true

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Affectionate</td>
<td>22. Dominant</td>
<td>42. Theatrical</td>
</tr>
<tr>
<td>3. Conscientious</td>
<td>23. Tender</td>
<td>43. Self-sufficient</td>
</tr>
<tr>
<td>4. Independent</td>
<td>24. Conceited</td>
<td>44. Loyal</td>
</tr>
<tr>
<td>5. Sympathetic</td>
<td>25. Willing to take a stand</td>
<td>45. Happy</td>
</tr>
<tr>
<td>7. Assertive</td>
<td>27. Tactful</td>
<td>47. Soft-spoken</td>
</tr>
<tr>
<td>9. Reliable</td>
<td>29. Gentle</td>
<td>49. Masculine</td>
</tr>
<tr>
<td>14. Compassionate</td>
<td>34. Athletic</td>
<td>54. Likeable</td>
</tr>
<tr>
<td>15. Truthful</td>
<td>35. Cheerful</td>
<td>55. Ambitious</td>
</tr>
<tr>
<td>16. Have leadership abilities</td>
<td>36. Unsystematic</td>
<td>56. Do not use harsh language</td>
</tr>
<tr>
<td>17. Eager to soothe hurt feelings</td>
<td>37. Analytical</td>
<td>57. Sincere</td>
</tr>
<tr>
<td>20. Warm</td>
<td>40. Make decisions easily</td>
<td>60. Friendly</td>
</tr>
</tbody>
</table>
Appendix C

BSRI Scale Items
<table>
<thead>
<tr>
<th>Masculine</th>
<th>Feminine</th>
<th>Neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defend my own beliefs</td>
<td>Affectionate</td>
<td>Conscientious</td>
</tr>
<tr>
<td>Independent</td>
<td>Sympathetic</td>
<td>Moody</td>
</tr>
<tr>
<td>Assertive</td>
<td>Sensitive to needs of others</td>
<td>Reliable</td>
</tr>
<tr>
<td>Strong personality</td>
<td>Understanding</td>
<td>Jealous</td>
</tr>
<tr>
<td>Forceful</td>
<td>Compassionate</td>
<td>Truthful</td>
</tr>
<tr>
<td>Have leadership abilities</td>
<td>Eager to soothe hurt feelings</td>
<td>Secretive</td>
</tr>
<tr>
<td>Willing to take risks</td>
<td>Warm</td>
<td>Adaptable</td>
</tr>
<tr>
<td>Dominant</td>
<td>Tender</td>
<td>Conceited</td>
</tr>
<tr>
<td>Willing to take a stand</td>
<td>Love children</td>
<td>Tactful</td>
</tr>
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<td>Aggressive</td>
<td>Gentle</td>
<td>Conventional</td>
</tr>
<tr>
<td>Self-reliant</td>
<td>Yielding</td>
<td>Helpful</td>
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<td>Unsystematic</td>
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<tr>
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<td>Shy</td>
<td>Inefficient</td>
</tr>
<tr>
<td>Make decisions easily</td>
<td>Flatterable</td>
<td>Theatrical</td>
</tr>
<tr>
<td>Self-sufficient</td>
<td>Loyal</td>
<td>Happy</td>
</tr>
<tr>
<td>Individualistic</td>
<td>Soft-spoken</td>
<td>Unpredictable</td>
</tr>
<tr>
<td>Masculine</td>
<td>Gullible</td>
<td>Solemn</td>
</tr>
<tr>
<td>Competitive</td>
<td>Childlike</td>
<td>Likeable</td>
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<tr>
<td>Ambitious</td>
<td>Do not use harsh language</td>
<td>Sincere</td>
</tr>
<tr>
<td>Act as a leader</td>
<td>Feminine</td>
<td>Friendly</td>
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Appendix D

Summary of Follow-Up Data Results
## Summary of Follow-Up Data Results

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### Educational level completed:

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<th>Degree</th>
<th>Frequency</th>
<th>%</th>
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<td>Bachelor's degree</td>
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<td>33</td>
</tr>
<tr>
<td>Master's degree</td>
<td>2</td>
<td>33</td>
</tr>
<tr>
<td>Post master's degree</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>Doctorate</td>
<td>1</td>
<td>17</td>
</tr>
</tbody>
</table>

### Work role:

<table>
<thead>
<tr>
<th>Role</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full time</td>
<td>5</td>
<td>83</td>
</tr>
<tr>
<td>Self-employed</td>
<td>1</td>
<td>17</td>
</tr>
</tbody>
</table>

### Marital status:

<table>
<thead>
<tr>
<th>Status</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>3</td>
<td>50</td>
</tr>
<tr>
<td>Never married</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>Divorced</td>
<td>2</td>
<td>33</td>
</tr>
</tbody>
</table>

### Children in the home:

<table>
<thead>
<tr>
<th>Presence</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>3</td>
<td>50</td>
</tr>
<tr>
<td>Yes</td>
<td>3</td>
<td>50</td>
</tr>
</tbody>
</table>

### Income level:

<table>
<thead>
<tr>
<th>Income</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>$15,001 to 20,000</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>20,001 to 25,000</td>
<td>2</td>
<td>33</td>
</tr>
<tr>
<td>25,001 to 30,000</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>30,001 to 35,000</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>35,001 to 40,000</td>
<td>1</td>
<td>17</td>
</tr>
</tbody>
</table>

**Note.** N = 6.
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