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PSYCHOLOGICAL ANDROGYNY AND ITS RELATIONSHIP TO EFFECTIVE
SCHOOL LEADERSHIP

The University of Arizona

Ph.D. 1986

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PSYCHOLOGICAL ANDROGYNY AND ITS
RELATIONSHIP TO EFFECTIVE SCHOOL LEADERSHIP

by

Martha Janette Haas

A Dissertation Submitted to the Faculty of the
DIVISION OF EDUCATIONAL FOUNDATIONS AND ADMINISTRATION

In Partial Fulfillment of the Requirements
For the Degree of

DOCTOR OF PHILOSOPHY
WITH A MAJOR IN EDUCATIONAL ADMINISTRATION

In the Graduate College
THE UNIVERSITY OF ARIZONA

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THE UNIVERSITY OF ARIZONA
GRADUATE COLLEGE

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Martha J. Haas

TABLE OF CONTENTS

	Page
LIST OF TABLES	v
ABSTRACT	vi
1. INTRODUCTION	1
Purpose of the Study	2
Research Questions	3
Significance of the Study	4
Limitations	5
Definitions	6
2. REVIEW OF THE LITERATURE	8
Situational Leadership	8
Dimensions of Leadership	9
Leadership Styles	11
Theories of Situational Leadership	11
Measurement of Situational Leadership	15
Sex Differences in Leadership Positions.	18
Women in Educational Administration	19
Effectiveness of Women Leaders.	21
Stereotypes of Leaders	23
Psychological Androgyny	26
Development of the Concept of Androgyny	26
Measurement Instruments	28
Scoring Procedures	32
Research Findings	34
Behavioral Flexibility	34
Measures of Personal Adjustment.	35
Relationship to Other Characteristics	37
Androgyny versus Masculinity	38
Career Development	40
Development of the Level of Androgyny	42
Summary	43

TABLE OF CONTENTS--Continued

	Page
3. METHODOLOGY	45
Research Questions	45
Demographic Variables	46
The Research Sample	46
Procedures	47
Instrumentation	48
Analysis of Data	50
4. RESULTS OF THE STUDY	53
The Random Sample	53
Participants in the Study.	54
Summary of Statistical Analysis	56
5. DISCUSSION OF RESULTS	71
Summary of Results and Discussion of Significance	71
Results of Data Analysis	72
Research Question One	73
Research Question Two	74
Research Question Three	75
Research Question Four	76
Research Question Five	76
Research Questions Six and Seven	78
Teacher-related Variables	79
Principal or School Related Variables	79
Conclusions	82
Recommendations for Further Research	83
APPENDIX A: Survey Instruments.	85
SELECTED BIBLIOGRAPHY	89

LIST OF TABLES

	Page
Table	
1. Typologies Based on Consideration (Relationship) and Initiating Structure (Task) Orientations	10
2. Percentage of Subjects in the Sample by Teacher Demographic Variable	57
3. Percentage of Subjects in the Sample by Principal/School Demographic Variable	57
4. Research Question One: Sex of Principal and Sex Role Identity	58
5. Research Question Two: Sex of Principal and Leadership Effectiveness and Adaptability	58
6. Research Question Three: Grade Level of School and Sex Role of Principal	58
7. Research Question Four: Grade Level of School and Leadership Effectiveness and Adaptability	59
8. Research Question Five: Sex Role and Leadership Effectiveness and Adaptability	59
9. Research Questions Six and Seven: Teacher Demographic Variables, Sex Role, and Leadership Effectiveness and Adaptability.	60
10. Research Questions Six and Seven: Principal or School Demographic Variables, Sex Role, and Leadership Effectiveness and Adaptability	65

ABSTRACT

The study investigated the relationship between situational leadership and psychological androgyny. Situational leadership emphasizes that the effective leader can diagnose the environment and choose a style of response based on the task, the people, and the particular situation. The theory of psychological androgyny states that a person can exhibit both masculine and feminine qualities and behaviors. It was hypothesized that the androgynous leader, with a balance of task (masculine) and people (feminine) orientations, would be a more effective leader. The review of literature incorporated situational leadership, sex differences in leadership, and psychological androgyny.

Teacher's perceptions of the principal's sex-role identity, utilizing the Short Bem Sex Role Inventory (Bem, 1981), and the relationship of that sex-role to perceptions of leadership effectiveness and adaptability, measured by the Leader Effectiveness and Adaptability Description (Hersey & Blanchard, 1973) were examined. Selected demographic variables were analyzed to determine their effect.

Subjects included 125 male and 125 female principals randomly selected from public schools in Arizona. Thirty per cent of the teaching staff in each school was randomly selected to complete survey instruments describing the principal. Data was analyzed using chi square, t-test, and ANOVA procedures.

Because of scoring procedures utilized, classification into sex-roles was sample-specific. The population was limited to principals in Arizona. Small numbers of female principals reduced the randomness of the sample. Results are generalizable only to the extent that another population is similar.

Significance at the .001 level was found for sex of principal and perceived sex-role identity, grade level of principal and perceived sex-role identity, and sex-role identity and perceived leadership effectiveness and adaptability. No significance was found for the relationship between sex-role identity or leadership effectiveness and adaptability and the teacher variables of sex, age, ethnicity, years of experience, and administrative certification. Significance was found for the principal variables of age, ethnicity, years of experience, and teacher's years of experience with the principal. Size of school and community were also found to be significant.

Further research into the relationship of these constructs, including observational studies and studies providing for external verification of both effectiveness and androgyny, would be beneficial.

CHAPTER 1

INTRODUCTION

As in most areas of management, educational leadership suffers from sex-role stereotyping (Fishel & Pottker, 1975; Frasher & Frasher, 1979). Until recently, descriptions of competent managers have concentrated on characteristics and attitudes traditionally perceived as masculine, i.e., analytical, decisive, competitive (e.g., Schein, 1973). Most organizations have not rewarded feminine behavior. Women leaders have been assimilated into a predominantly male culture and value system without consideration for what might be lost in the process (Sargent, 1981b). Behaviors exhibiting concern for the person instead of the task, perceived as more feminine behaviors, have not been stressed in promoting quality leadership.

Research in leadership/management theory, however, has shifted from a view of leadership based upon personal traits or behaviors to one in which the dual nature of leadership is recognized. It has come to be generally accepted that the two most important dimensions of leadership, whatever labels may be attached, are a concern for

the task and a concern for the people involved (e.g., Halpin & Winer, 1957). Situational leadership theory emphasizes that the effective leader is one who can diagnose the environment and choose an appropriate style of response based on the task, the people, and the particular situation (e.g., Hersey & Blanchard, 1972).

As situational leadership becomes the standard, effective managers will need to balance responses between those traditionally perceived to be masculine [production oriented] and those perceived to be feminine [people oriented]. The term "androgyny" may be used to describe this balance of management behaviors (Sargent, 1981a). The theory of psychological androgyny states that a person can exhibit both masculine and feminine qualities (Bem, 1974); in varying degrees, such values, attitudes and behaviors are found in every individual. Managers who are able to develop and utilize a variety of behaviors should be able to operate with a full complement of management styles, selecting the style most appropriate for the particular situation (Sargent, 1981a).

Purpose of the Study

The purpose of the study was to examine teachers' perceptions of the sex-role identity of principals and the relationship of that sex-role identity to perceptions of

leadership effectiveness and adaptability. The study investigated possible differences in teachers' perceptions of male and female principals and elementary and secondary principals. Selected demographic variables (community size, school size, sex of teacher, age of teacher, age of principal, years of experience as a principal, years of experience as a teacher, years of experience with the current principal, ethnicity, and teachers with an administrative credential) were analyzed to ascertain their impact on the results.

Research Questions

1. Is there a relationship between male and female principals in regard to teachers' perceptions of the principal's sex-role identity as measured by the Short Bem Sex Role Inventory ("Short BSRI") (Bem, 1981)?

2. Is there a relationship between male and female principals in regard to teachers' perceptions of the principal's leadership effectiveness and adaptability as measured by the Leader Effectiveness and Adaptability Description ("LEAD-Other") (Hersey & Blanchard, 1973)?

3. Is there a relationship between elementary and secondary principals in regard to teachers' perceptions of the principal's sex-role identity as measured by the Short BSRI?

4. Is there a relationship between elementary and secondary principals in regard to teachers' perceptions of the principal's leadership effectiveness and adaptability as measured by the LEAD-Other?

5. Is there a relationship among masculine, feminine, androgynous, and undifferentiated principals in regard to teachers' perceptions of the principal's leadership effectiveness and adaptability as measured by the LEAD-Other?

6. Is there a relationship among demographic variables in regard to teachers' perception of the sex-role of principals as measured by the Short BSRI?

7. Is there a relationship among demographic variables in regard to the teachers' perceptions of the principal's leadership effectiveness and adaptability as measured by the LEAD-Other?

Significance of the Study

Effective schools research has highlighted the role of the principal in developing and maintaining a quality educational program (e.g., Edmonds, 1979). The relationship between androgyny and leadership could become a critical factor in the selection and training of present and potential principals who could provide the kind of

climate and support necessary for effective schools if it could be shown that the androgynous person was, in fact, a more effective leader.

More women might be recruited into educational administration, a male-dominated profession, if it could be demonstrated that androgynous leaders were more effective. Women who do not wish to be perceived as masculine may be more willing to enter a non-traditional field if effective management can be shown to require feminine as well as masculine characteristics. Gulanick and Howard (1979) suggested that promotion of androgyny might lessen some of the negative consequences of sex-role stereotyping in leadership.

Most measures of sex-roles and effective leadership have been based on self-report measures. An examination of the subordinate's perceptions of the leaders for these two concepts may produce results of significance.

Limitations

Because of the scoring procedures utilized, classification into sex-role categories was sample-specific. Results may not, therefore, be generalizable to another population.

The population for the study was limited to principals in public elementary and secondary schools in the state of Arizona. Results will be generalizable only to the extent that another population is similar to the population of Arizona principals.

Because of the relatively small number of women in educational administration, the random sample of female principals included ninety-five per cent of the total population of female principals while the sample of male principals represented thirty-seven per cent of the population. This may have influenced the results of the study.

Definitions

Androgyny, or psychological androgyny, denoted an integration of masculine and feminine characteristics and behaviors within the same person.

Sex-role identity was defined through the use of the Short Bem Sex Role Inventory ("Short BSRI") (Bem, 1981). A masculine sex role was assigned to any individual who scored above the median on the masculine scale and below the median on the feminine scale. A feminine sex role was assigned to any individual who scored above the median on the feminine scale and below the median on the masculine scale. The androgynous sex

role was assigned to any individual who scored above the median on both scales. Those individuals who scored below the median on both scales were categorized as undifferentiated.

Leadership effectiveness was determined by scores of effectiveness and adaptability attained on the Leader Effectiveness and Adaptability Description, ("LEAD-Other") (Hersey & Blanchard, 1973).

An elementary principal was defined as the full-time certificated principal of a public school serving any combination of grades kindergarten through sixth. A secondary principal was defined as the full-time certificated principal of a public school serving any combination of grades nine through twelve.

CHAPTER 2

REVIEW OF LITERATURE

The review of literature incorporated reviews of situational leadership, sex differences in leadership, and psychological androgyny.

Situational Leadership

The study of leadership is by no means a recent phenomena. Discussions on leadership can be found in the works of such ancients as Plato and Caesar (Bass, 1981). The development of leadership theories during the past seventy-five years seems to have been based on three general approaches: (a) the trait approach, (b) the behavioral approach, and (c) the situational approach (Hendrix, 1976).

The trait approach, which maintained that leaders possess a unique combination of specific personality characteristics, has generally been abandoned by researchers (Hendrix, 1976; Jago, 1982). Stogdill (1948) stated, in an early survey of leadership literature, that leadership was more than a mere possession of some combination of traits. While the trait approach defined a leader by

what he was (traits), the behavioral approach explained leadership on the basis of what a leader did (behaviors).

Dimensions of Leadership

Two independent dimensions of effective leadership emerged in early studies (Katz, Maccoby & Morse, 1950; Halpin & Winer, 1957, Stogdill, Wherry & Jaynes, 1953). The first factor, consideration, comprised the extent to which a leader exhibited concern for the welfare of other members of the group. The second factor, initiating structure, referred to the extent to which a leader initiated activity in the group, organized it, and defined the way work was to be done (Bass, 1981). Consideration and initiating structure were not conceptualized as opposite ends of a leader behavior continuum, but rather as two separate dimensions free to vary independently (Jago, 1982).

These two dimensions, although often with different labels, have been echoed throughout leadership research since the 1950's. Researchers have suggested other factors which might interact with or upon consideration and initiating structure; however, these two dimensions have gained acceptance and have served as a structural element on which to base further integrative theories (Reddin, 1977). Table 1, adapted from Bass

(1981, p. 289-290) and Reddin (1977, p. 286), reflects a sampling of the research on task and relationship orientations and the various typologies which have been applied to the concepts.

Table 1. Typologies Based on Consideration (Relationship) and Initiating Structure (Task) Orientations

<u>Source</u>	<u>Task Orientation</u>	<u>Relationship Orientation</u>
Katz, Maccoby, & Morse (1950) Hemphill, Seigel, & Westie (1951) Fleishman (1957)	Production-oriented Initiating Structure Production Emphasis	Employee-oriented Consideration Employee Emphasis
Bales (1958)	Task Leader	Socio-emotional Leader
Kahn (1958)	Path-goal Structuring	Direct need Satisfaction
Halpin (1959)	Goal Achievement	Group Maintenance
Cartwright & Zander (1960)	Goal Achievement	Group Maintenance
Likert (1961)	High Performance	Supportive
Blake & Mouton (1964)	"9,1" (production concerned)	"1,9" (employee concerned)
Mann (1965)	Administrative, Technical	Human Relations
Bowers & Seashore (1966)	Work Facilitative	Interaction Facilitative
Bass (1967)	Task, Self Oriented	Interaction oriented
A. F. Brown (1967)	System Orientation	Person Orientation
Fiedler (1967)	Task-oriented	Interaction-oriented
Hersey & Blanchard (1969)	Task Behavior	Relationship Behavior
Anderson (1974)	Traditional, Prescriptive	People-centered, Supportive
Vroom & Yetton (1973)	Autocratic	Democratic

Leadership Styles

Leadership research attempted to identify an optimal leadership style based on the most effective combination of consideration and initiating structure (Jago, 1982). A number of studies seemed to indicate that the most effective leader was one who exhibited high levels of both dimensions (Hemphill, 1955; Fleishman, 1957; Halpin, 1957; Hills, 1963; Fleishman & Simmons, 1970; House, Filley, & Kerr, 1971). Blake and Mouton (1964) based the development of their Managerial Grid on these results, as well as on their own research. They advocated a high consideration-high structure approach as the one best style of leadership in all situations.

Theories of Situational Leadership

Research has suggested that instead of leader actions determining the outcome of a situation (including the responses of the followers), it may be the followers who, at least in part, determine the leader's behaviors (Hollander, 1958; Pepinsky, Hemphill, & Shevitz, 1958; Lowen & Craig, 1968; Farris & Lim, 1969; Greene, 1975; Hollander & Julian, 1969; Crowe, Bochner, & Clark, 1972; Jago & Vroom, 1975). The context in which the leader operates may be important in establishing what behaviors the leader exhibits (Jago, 1982). This conclusion led

many researchers from the behavioral approach to a contingency, or situational, approach to leadership, in which effective leadership was contingent upon the leader, the follower, and the specific situation (Hollander & Julian, 1969). There was no one best, or universally appropriate, style of leadership for all situations; situational contingencies were influential.

The Ohio State University leadership studies, begun in the late 1950's, were instrumental in shifting the focus from the universal trait or behavior approach to a more situational view (Schriesheim & Bird, 1979). Stogdill identified 124 studies indicating that patterns of leadership traits differ with the situation (Bass, 1981). During the period in which it gained recognition as a valid perspective on leadership, the situational approach also gave rise to research on the conditions under which specific behaviors or traits become effective.

Studies supported the contention that an emphasis on both consideration and structure, as earlier hypothesized, might not always be the ideal (Fleishman, Harris & Burt, 1955; Vroom & Mann, 1960; Katzell, Barrett & Parker, 1961; Fleishman & Harris, 1962; Vroom, 1964; Korman, 1966; House & Dessler, 1974; Kerr & Schriesheim, 1974; Kerr, Schriesheim, Murphy & Stogdill, 1974). A body of literature documented the situational approach

to leadership, emphasizing the importance of the behavior of the followers and the context or situational cues interacting with leader behavior and effectiveness (LeSage, 1974; Saari, 1976; Lord, Benning, Rush & Thomas, 1978; Mitchell, Larson, & Green, 1977; Rush, Thomas, & Lord, 1977; Beck, 1978; Downey, Duffy, Shiflett, 1979).

A variety of situational leadership theories and measurements have been developed based upon the inclusion of different combinations of situational variables. More than two hundred studies were conducted between 1964 and 1974 examining the consideration and initiating structure relationships as modified by situational variables. In a comprehensive review of these studies Kerr, Schriesheim, Murphy, and Stogdill (1974) identified variables which were found by researchers to exert significant influence upon the consideration and initiating structure relationships. The situational elements identified included:

Subordinate considerations. Expertise, experience, competence, knowledge of job, hierarchical level of occupied position, expectations concerning leader behavior, perceived organizational independence, and psychological aspects.

Supervisor considerations. Similarity of attitudes and behavior to those of higher management, and upward influence.

Task considerations. Degree of time urgency, amount of physical danger, permissible error rate, presence of external stress, degree of autonomy, degree of job scope, importance and meaningfulness of work, and degree of ambiguity. (p. 73)

Even within this synthesis, it was obvious that several of the variables were interrelated. Although there does not appear to be agreement on a specific theory incorporating all of the situational variables, the literature revealed agreement that leadership is a dynamic process system composed of the leader, the follower, and the situation. These components are interdependent; when any one characteristic is changed, there should be a requisite change in leader behavior (Hendrix, 1976). All of the situational leadership theories require an accurate assessment of the situation followed by leadership action appropriate in that situation (Olmstead, 1967). Fiedler's Contingency Theory (1964) was the first theory of leadership which included both leadership style (task and relationship motivation) and situational factors as variables. Fiedler's model defined the situation in terms of its favorability to the leader. The variables considered within favorability were leader-member relations, task structure, and leader position power. However, diverse definitions of the situational variable led to the development of alternative theories.

For example, House's (1971) path-goal hypothesis, based on expectancy theory, required individual assessment, by both leader and follower, of variables within each situation and the rewards, tangible or intrinsic, which

might be attained contingent upon the path selected to complete the task. Reddin (1967) introduced the concept of effectiveness as a variable within the situation in his 3-D Theory of Leadership Effectiveness. The 3-D Theory required a leader to be sensitive to a situation and flexible enough to adapt the situation to his/her leadership style. Reddin subdivided the situation into five elements which include the organization philosophy, the technology, the superior, the co-workers, and the subordinates. The Hersey-Blanchard Life Cycle Theory (1972), based on Reddin's work, added a third dimension of effectiveness to the task and relationship dimensions of leader behavior and led to the development of the "Tri-dimensional Leader Effectiveness Model". The situation was defined in terms of the maturity of the follower or group as determined by the knowledge of the task to be done and motivation to complete it.

Measurement of Situational Leadership

With the identification of initiating structure and consideration as dimensions of leadership and the rise of situational leadership theories came the development of devices to measure a leader's style of behaviors. Two of the most thoroughly researched and widely used instruments, Fiedler's Least Preferred Coworker ("LPC") scale (Fiedler,

1964) and Ohio State's Leader Behavior Description Questionnaire ("LBDQ") (Halpin, 1957) were both designed to measure the task (initiating structure) and the relationship (consideration) behaviors.

Mitchell, Biglan, Oncken, and Fiedler (1970) indicated that over twenty-five studies were conducted between 1964 and 1970 to test various aspects of Fiedler's model and the LPC scales. Laboratory experiments provided weak support, at best, for many portions of the model and the scale. The reliability and validity of the LPC score and the validity of the contingency model have been questioned (Ashour, 1973; Graen, Alvares, Orris, & Martella, 1970; Hendrix, 1976; Johnson & Ryan, 1976; Kerr & Harlan, 1973; McMahon, 1972; Rice, 1978; Schriesheim & Kerr, 1977; Shiflett, 1973; Stinson & Tracy, 1974; Vecchio, 1977).

The LBDQ has been subjected to experimental validation with successful results (Stogdill, 1969). However, factor analyses have generally yielded more than just the two factors (consideration and initiating structure) found in the original scale development (Bledsoe & Brown, 1977; Markham & Scott, 1983; Rush, Thomas, & Lord, 1977; Schriesheim & Stogdill, 1975; Templer, 1973). Neither the LPC nor the LBDQ attempted to include the measurement of any of the situational variables within the instruments.

The Leadership Adaptability and Style Inventory ("LASI") (Hersey & Blanchard, 1974), re-named the Leader Effectiveness and Adaptability Description ("LEAD"), (Hersey & Blanchard, 1977) was developed to measure the task and relationship orientations of a leader, but also included measurement based on the maturity of the group as a situational variable. In keeping with the tri-dimensional leadership model (Hersey & Blanchard, 1972), maturity was defined as the motivation and task knowledge of the group or individual follower.

The LEAD has yet to be subjected to the rigorous research common to the LPC and the LBDQ; however, initial reports have generally appeared positive. Theoretical concerns have been expressed due to the ambiguity of the maturity concept (Barrow, 1977; Graeff, 1983; Yukl, 1981). Nevertheless, Graeff (1983) stated that it was highly appropriate to recognize the subordinate in a measurement of leadership effectiveness. In a study of corporate managers, Hambleton and Gumpert (1982) found the LEAD to be a valid instrument. High performing managers were rated higher on effectiveness and perceived as showing more flexibility than lower performing managers. Greene (1980) reported that the logical, face, and construct validities of the LEAD were clearly established through

empirical validation studies and that the scores were stable across time. Correlations ranging from .67 to .81 were reported. The results of the studies led Greene (1980) to conclude that the LEAD was an empirically sound instrument.

Sex Differences in Leadership Positions

Women are seriously underrepresented in leadership positions. S. M. Brown (1979) estimated that six per cent of all employed women were in managerial/administrative positions compared to fifteen per cent of employed men. The ratio of male to female corporate chief executive has been as high as 600-to-1 (Meyer, 1975). At one time, one-third of all working women were concentrated in only seven jobs: secretary, retail sales clerk, household worker, elementary school teacher, waitress, and nurse (Bem & Bem, 1975). Of all the administrative jobs held by women, the elementary school principalship seemed to offer the greatest opportunity for autonomy and leadership (Stansbury, Thomas, & Wiggins, 1984). In 1909, Ella Flagg Young, then Superintendent of Schools in Chicago, predicted that women would soon dominate educational administration (cited in Hansot & Tyack, 1981). It proved a profoundly inaccurate prognostication.

Women in Educational Administration

Current statistics for education, still perceived as a feminine profession, present the same pattern of male selection for leadership positions. Lyon and Saario (1973) reported that although eighty-two per cent of all public school elementary teachers in 1970-1971 were women, only nineteen per cent of the principals were women. Hansot and Tyack (1982) reported that the percentage of women in elementary principalship positions had dropped from roughly fifty-five per cent in 1928 to forty-one per cent in 1948, to thirty-eight per cent in 1958 and to twenty-two per cent in 1968. Lyon and Saario (1973) also reported that while fifty-eight per cent of the secondary public school teachers were women, three per cent of the secondary principals were female. Further up the hierarchical ladder, the numbers decrease even more. In 1970-1971, only six-tenths-of-one per cent of local school district superintendents were female. In 1969-1970, nine-tenths-of-one per cent of the educational administration faculty in public institutions of higher education were women (Estler, 1975).

The minimal number of females in leadership positions in education continued to exist in light of data which clearly dispelled the notion that women were

incapable of effective administrative performance (Frasher & Frasher, 1979). Fishel and Pottker (1975) reviewed the findings of over thirty studies spanning a twenty year period to determine if empirical evidence existed to demonstrate that behavioral characteristics of successful principals were sex-linked. Their results, organized in four broad areas (instructional supervision, relations with students, relations with parents and community, and general administration) revealed that women principals were perceived to be at least as effective, and generally more effective, than male principals in each of the categories. Frasher and Frasher (1979) reviewed seven studies conducted between 1956 and 1976 and reached the same conclusion. In nearly every comparison of actual administrative performance, there have either been no sex differences or women have received the higher ratings. Hemphill, Griffiths, and Frederiksen (1962) concluded that women tended to outscore men in ability to work with teachers and outsiders, were more concerned with objectives, possessed greater knowledge of teaching methods and techniques, and were able to gain positive reactions from teachers and superiors.

Because behavioral studies showed that women principals generally performed more capably than male principals, and therefore, abilities could not account

for the discrepancy in selection for leadership positions, Fishel and Pottker (1975) also reviewed attitudinal studies toward women principals. The summary of findings indicated that, while it was true they did not aspire or prepare for administrative positions with the same frequency as male teachers, women teachers were also discouraged from seeking administrative appointments. The discouragement came from fellow teachers, supervisors, and school boards as well as lack of recruitment efforts on the part of colleges and universities. Fishel and Pottker (1975) concluded that some criteria other than characteristics needed for effective performance as a principal were used to recruit and hire principals.

Effectiveness of Women Leaders

The same pattern of equal effectiveness without equal advancement has been found in other occupational categories. Day and Stogdill (1972) documented, with a sample of civilian employees at military bases, that male and female supervisors who occupy parallel positions and perform similar functions exhibit similar patterns of leader behavior and effectiveness. In addition, they found that although similar in effectiveness and behavior, the outcome in regard to advancement differed. Rapid

advancement for males tended to go to those who were more effective; for females, rate of advancement was unrelated to effectiveness.

In a review of thirty-two studies on female leadership, Brown (1979) found that the widely held belief that women make inferior leaders was not supported in actual work situations. Bartol and Wortman (1976) found that few differences existed between male and female leaders in either the way in which they perceived their leader behavior or in their satisfaction with various aspects of their jobs. Osborn and Vicars (1976) demonstrated the lack of difference between male and female leaders in terms of leader behavior and subordinate satisfaction. Powell and Butterfield's (1982) review of attributional research on female and male leaders led to the conclusion that female leaders were not evaluated or perceived differently from male leaders when engaging in the same behavior. Both male and female leaders were evaluated more highly when group performance was high. They also concluded that causal attribution for successful performance and evaluations of performance often differed for male and female leaders.

Stereotypes of Leaders

Several studies have shown a bias against women in leadership positions when equivalent performances with men are judged (Deaux & Taynor, 1973; Goldberg, 1968; Hagen & Kahn, 1975; Spence & Helmreich, 1972.) The concept of bias used in these studies was derived from causal attribution theory. The success of women leaders was more often seen to have resulted from luck or favorable circumstances, while the success of men was seen to have resulted from skill. Attributing success to external sources (luck) in contrast to internal sources (skill) has been interpreted as a subtle form of bias. Galvin, Plake, Powers-Alexander, and Lambert (1984) investigated whether there had been a change in biases since Goldberg's (1968) study. Their findings indicated that bias against competent women still exists although the biases may be attenuated for women described with stereotypically masculine attributes. In addition, they found that describing men with attributes considered feminine resulted in bias against men.

Even in light of the research verifying that women can function as effectively in leadership positions as men, there is a body of research that directly indicated or implied that people generally expect the leader role to be filled by a man (Inderlied & Powell, 1979). Schein (1973),

in a study later replicated by Massengill and DiMarco (1979), found that men and managers were rated similarly on sixty of eighty-six items rating overall characteristics, attitudes, and temperament, while women were rated similar to successful managers on only eight of the items. Megargee (1969) found that a woman was unlikely to become a leader when a man was available. Eskilson and Wiley (1976) showed that male leaders were more likely to choose themselves as the future leader of the group than were women. Lockheed (1977) summarized the research in the area by stating that neither women nor men expect women to occupy the leadership role.

Evidence of the existence of sex-role stereotypes, (that is, highly consensual norms and beliefs about the characteristics of men and women) is abundantly present in the literature (Anastasi & Foley, 1949; Komarovsky, 1946). Broverman, Vogel, Broverman, Clarkson, and Rosenkrantz (1972), in a well-reported study, found the societal stereotype for males loaded on items of competence. Men were viewed as aggressive, independent, objective, dominant, active, logical, ambitious, self-confident, competitive, and able to make decisions. The female stereotype loaded on items of warmth and expressiveness. Women were seen as talkative, tactful, gentle, reliable, neat, quiet, dependent, illogical, emotional, sensitive, and passive.

Bardwick and Douvan (1972) recounted a comparable listing of characteristics, adding assertive, courageous, rational and confident for men and fragile, nonaggressive, yielding, and unable to take risks for women. Similar findings were reported by Larwood and Wood (1977).

Bardwick and Douvan (1972) noted that the qualities seen as masculine were consistent with those generally thought to be leadership qualities. Comparison with listings of stereotyped characteristics reported by others would support the finding that the traits which society views as important to leaders and managers are those traits which are seen as masculine (Hollander, 1964; Homans, 1950; McKee & Sheriffs, 1957; Rosenkrantz, Vogel, Bee, Broverman, & Broverman, 1968). Schein (1975) confirmed that the adjectives used to describe managers (e.g., vigorous, self-reliant, aggressive, emotionally stable) were viewed by both men and women as traits which were more masculine than feminine. Powell and Butterfield (1979) reported in their survey of 694 business students' attitudes toward leadership that the students described good managers in masculine terms. O'Leary (1974) found that women regarded themselves as lacking traits necessary for managerial success. Larwood and Wood (1977) discussed the stereotyping of managerial skills as

masculine and reported that women are socialized to regard themselves as business incompetents.

Psychological Androgyny

Development of the Concept of Androgyny.

Psychological theories and research in the area of masculinity-femininity ("M-F") have undergone a dramatic shift in the past decade (Major, Deaux, & Carnevale, 1981). In general, traditional theories assumed that M-F represented the negatively correlated ends of a uni-dimensional continuum. Early instruments such as the Terman-Miles measure of M-F, the Strong M-F scale, and the Guilford Masculinity Scale, all published in 1936, were developed utilizing a bipolar concept (cited in Myers & Gonda, 1982). When so defined, high masculinity implies low femininity; the absence of masculine characteristics necessarily implies feminine ones (Kelly & Worell, 1977).

In the first comprehensive critique of the traditional M-F instruments, Constantinople (1973) questioned the adequacy of the existing measures for a variety of reasons. The meaning of masculinity and femininity had been defined in terms of the empirical, sex-differentiated frequency of item endorsement without apparent reliance on a theory of sex roles. She concluded that available data clearly pointed to the multidimensionality of the M-F

concept. Freud, as early as 1905, stated that "...pure masculinity or femininity is not to be found in a psychological or biological sense. Every individual...displays a mixture of the characteristic traits belonging to his own and to the opposite sex." (cited in Russell, Antill, & Cunningham, 1978). Constantinople (1973) called for empirical testing of the bipolar hypothesis.

In response to criticism of the traditional concept and measurement of masculinity-femininity, researchers in a number of disciplines began to concern themselves with consideration of these constructs as independent dimensions. Many researchers began investigation of the concept of psychological androgyny, a term that denotes an integration of masculine and feminine characteristics and behaviors within the same person (e.g., Bazin & Freeman, 1974; Bem 1974, 1975, 1977, Bem & Lenney, 1976; Block, 1973; Gelpi, 1974; Harris, 1974; Hefner, Rebecca, & Oleshansky, 1975; A. B. Heilbrun, 1976; C. G. Heilbrun, 1973; Kaplan & Bean, 1976; Pleck, 1975; Spence, Helmreich, & Stapp, 1975). The concept of psychological androgyny implies that an individual has the possibility of being masculine or feminine, instrumental or effective (Parsons & Bales, 1955), agentic or communal (Bakan, 1966) and can modify behavior according to the appropriateness of a particular situation. Bem (1977)

proposed that androgyny also implies that an individual may blend these modalities into a single act if the circumstances warrant both kinds of behaviors simultaneously.

According to Kagan (1964) and Kohlberg (1966), the highly sex-typed person is motivated to exhibit behaviors consistent with the image of an internalized sex-role and to suppress any behavior inconsistent with this sex-role. The sex-typed individual, therefore, can be restricted in the range of behaviors available in a given situation. Bem (1974) hypothesized that perhaps it is not the sex-typed individual who typifies mental health, as traditionally assumed, but rather the androgynous individual. This hypothesis, as well as the basic concept of psychological androgyny, has generated extensive research during the past decade.

Measurement Instruments

Early areas of concern centered on the definition and measurement of psychological androgyny. Androgyny has generally been assessed through responses to a questionnaire. After introduction of the concept, a proliferation of instruments occurred, through the development of new measurements or modifications to existing ones (Bem, 1974; Bergins, Welling, & Wetter, 1978; Comfrey, 1970; Gough, 1957; A. F. Heilbrun, 1976; Jackson, 1967; Spence,

Helmreich, & Stapp, 1975). Correlations among the various instruments have been reported as moderately high, but the overlap of classifications to sex-role categories is lower. Although agreement has been reported as better than chance, it has not been high enough to enable use of the instruments interchangeably (Cunningham & Antill, 1980; Kelly, Furman, & Young, 1978; Myers & Sugar, 1979; Small, Erdwins, & Gross, 1979; Wilson & Cook, 1984). The Bem Sex Role Inventory ("BSRI") (Bem, 1974) has been reported as the most widely used instrument in androgyny research (Bohannon & Mills, 1979; Gayton, Havu, Ozman, & Tavormina, 1977; Kelly & Worell, 1977; Lubinski, Tellegen, & Butcher, 1983; Motowidlo, 1981; Rowland, 1980; Smith, 1977; Spence & Helmreich, 1979; Thomas, 1983; Yarnold, 1984) and has been considered the instrument of choice for studies exploring stereotypical sex-role behaviors as opposed to those exploring sex-role traits and characteristics (Lenney, 1979; Wilson & Cook, 1984).

The BSRI has also received the most experimental investigation and validation (Lubinski, Tellegen, & Butcher, 1983; Kelly & Worell, 1977). Lussenheide and Vandever (1978) replicated the original standardization study (Bem, 1974) with similar results. Although Edwards and Ashworth (1977) failed to do so, Walkup and Abbott (1978) replicated the original item selection (Bem, 1974)

for eighteen of the twenty items on the masculine scale and nineteen of twenty on the feminine scale. Walkup and Abbott (1978) theorized that Edward and Ashworth's failure occurred because they utilized a different set of directions and a different rating scale than Bem (1974). Wiggins and Holzmuller (1981) stated that the BSRI was based on the best available combination of orthogonal scales for the measurement of sex-role stereotypes.

Kelly and Worell (1977) found the BSRI to be psychometrically sound. A variety of studies verified the construct validity of the scale (Carlsson & Magnusson, 1980; Helmreich, Spence, & Holahan, 1979; La France & Carmen, 1980; Lubinski, Tellegen, & Butcher, 1981; Lussenheide & Vandever, 1978; Olds, 1976; Senneker & Hendrick, 1983; Tunnell, 1981). Convergent validity has also been confirmed (Cunningham & Antill, 1980; Eman & Morse, 1978). The BSRI has been found to be reliable (Bem, 1974; Rowland, 1977; Russell, Antill, & Cunningham, 1978), to have high test-retest reliability (Bem, 1974; Eman & Morse, 1978; Rowland, 1977), and to be internally consistent (Bem, 1974; Eman & Morse, 1978; Rowland, 1977; Russell, Antill, & Cunningham, 1978). Studies have also substantiated the predictive ability of the BSRI for behavioral flexibility (Bem & Lenney, 1976; Drinkwater,

1979; Eman & Morse, 1978; Helmreich, Spence, & Holahan, 1979; Wakefield, Sasek, Friedman, & Bowden, 1976; Wiggins & Holzmuller, 1981). Correlations in the various studies ranged from .59 to .93.

Gaudreau (1977) subjected the BSRI to a factor analysis and found loadings for four factors which she labelled masculine, feminine, gender, and maturity. She also found a group of items on the feminine scale with relatively low social desirability compared to others on the scale. These included "childlike", "flatterable", and "gullible". Similar loadings and undesirable characteristics were found by other researchers conducting factor analyses (Bergins, Welling, & Wetter, 1978; Bohannon & Mills, 1979; Collins, Waters, & Waters, 1979; Feather, 1978; Moreland, Gulanick, Montague, & Harren, 1978; Pedhauzar & Tetenbaum, 1979; Puglisi, 1980; Wakefield, Sasek, Friedman, & Bowden, 1976; Waters, Waters, & Pincus, 1977; Whetton & Swindells, 1977). Gaudreau (1977) and others made suggestions for deletions of items which would increase the scale's homogeneity and interpretability.

Bem (1979) developed a revised version of the scale, the Short Bem Sex Role Inventory ("Short BSRI"), which takes the results of the factor analyses into consideration. The Short BSRI has shown high (.89)

correlation to the BSRI (Bem, 1981). Hoferek (1981) found the revised BSRI to be a stronger instrument than the original. Lubinski, Tellegen, and Butcher (1981) reported that the Short BSRI showed construct validity. In a later study, they stated that the Short BSRI was one of the most refined instruments invented to measure androgyny (Lubinski, Tellegen, & Butcher, 1983).

Scoring Procedures

In her original postulation, Bem (1974) advocated characterizing a person as androgynous as a function of the simple difference between the individual's endorsement of masculine and feminine personality characteristics of a sex-role inventory. Thus, a person was sex-typed to the extent that the difference score was high and androgynous to the extent that the difference score was low. In a later study, Bem (1975) recommended the use of a "t" ratio as an index of androgyny, thereby standardizing the individual's difference scores with respect to the standard deviations of the masculinity and femininity scores. However, the difference or subtractive method of scoring was criticized (Baucom, 1976; Heilbrun, 1976; Spence, Helmreich, & Stapp, 1975; Strahan, 1975; Yonge, 1978) because it obscured a potentially important distinction between the individuals who scored high on both

masculinity and femininity and those individuals who scored low on both.

Spence, Helmreich, and Stapp (1975) advocated a split median scoring method, in which only those scoring above the median on both masculinity and femininity were classified as androgynous. Those scoring low in both were labelled as undifferentiated. Hence a fourfold classification of individuals was derived: masculine (high masculine-low feminine), feminine (high feminine-low masculine), androgynous (high masculine-high feminine) or undifferentiated (low masculine-low feminine). The fourfold categorization of individuals has generally been accepted as the most appropriate scoring and classification system for measurement of androgyny (Bem, 1977; Bem & Watson, 1976; Bernard, 1980; Kelly & Worell, 1977; Pedhazur & Tetenbaum, 1979; Orlofsky, Aslin & Ginsburg, 1977; Spence, Helmreich, & Stapp, 1975; Strahan, 1975). In addition, several researchers have suggested further analysis, when appropriate, through the use of multiple regression techniques, to clarify which dependent variables are a function of the subjects' masculinity alone, which are a function of femininity alone, and which are truly a function of both (Bem, 1977; Feather, 1978; Flaherty &

Dusek, 1980; Kelly, Furman, & Young, 1975; Lubinski, Tellegen, & Butcher, 1981; Strahan, 1975).

Research Findings

Myers and Gonda (1982) reported that since the introduction of the concept of psychological androgyny in the mid-1970's, there have been over one hundred studies relating androgyny to everything and anything. Bem's assertion that psychological androgyny may define a new concept of mental health (Bem, 1974) generated a large quantity of research. Generalizing across studies has been difficult due to the variations in instrumentation and scoring. However, some apparent patterns have emerged from the research.

Behavioral Flexibility. According to Bem (1975), a key feature of the androgynous personality is the behavioral flexibility available to an individual who has both masculine and feminine responses from which to choose. A number of studies have supported the concept of the androgynous person exhibiting flexibility of behaviors across situations (Bem, 1975; Bem & Lenney, 1976; Bem, Martyna, & Watson, 1976; Falbo, 1977; Flaherty & Dusek, 1980; Heilbrun & Pitman, 1979; Helmreich, Spence, & Holahan, 1979; LaFrance & Carmen, 1980; Nevill, 1977). Bem (1975) concluded that the androgynous person not only

manifested a high level of masculine independence while under pressure to conform, but also showed a high level of feminine playfulness when given the opportunity to interact with a kitten. Sex-typed individuals did well only when the expected behavior was congruent with their identified sex-roles. The tendency of sex-typed individuals to prefer an activity because of its stereotype as sex-appropriate was also reported by Bem and Lenney (1976). Androgynous subjects have been found to be capable of both nurturance and independence, while feminine subjects were low in independence and masculine subjects in nurturance (Bem, Martyna, & Watson, 1976). Heilbrun and Pitman (1979) found a greater flexibility across situations for the androgynous sex-role. La France and Carmen (1980) reported that the flexibility exhibited by the androgynous person was the product of adding cross-sex behaviors while deleting sex-consonant ones.

Measures of Personal Adjustment. The androgynous individual has shown a higher level of self-esteem than sex-typed or undifferentiated persons (Bem, 1977; Flaherty & Dusek, 1980; Loxley, 1977; O'Connor, Mann, & Bardwick, 1978; Spence & Helmreich, 1978; Spence, Helmreich, & Stapp, 1975). Spence, Helmreich and Stapp (1975) found that the androgynous individual scored

highest on self-esteem measures, with undifferentiated persons reflecting the lowest levels and sex-typed individuals scoring at intermediate levels. Bem (1977), utilizing a college-age sample, found that androgynous men and women had the highest mean score for self-esteem, followed by masculine sex-typed, feminine sex-typed, and undifferentiated respectively. O'Connor, Mann, and Bardwick (1978) obtained results similar to Bem (1977) using a middle-age, uppermiddle class population.

Hinrichsen, Follansbee, and Ganellan (1981) noted a clear pattern among androgynous subjects of more positive self-concept and mental health outlook than sex-typed individuals. Undifferentiated reflected the lowest levels of self-concept. Nevill (1977) also confirmed the relationship between the androgynous sex-role and a positive self-concept and reported the androgynous showed fewer signs of psychopathology. There have been suggested differences between androgynous and sex-typed persons in the areas of general adjustment and self-confidence (Bernard, 1980; DeGregorio & Carver, 1980; Helmreich, Spence, & Holahan, 1979; Hoffman & Fidell, 1979; Jones, Chernovetz, & Hansson, 1978; Major, Deaux, & Carnevale, 1981; Orlofsky & Windle, 1978; Silvern & Ryan, 1979). Kinsell-Rainey (1976) found androgynous women to be more self-reliant and self-confident than feminine

women. Other researchers found a relationship between androgyny and self-actualization measures. The androgynous person presented a more balanced personal profile and greater freedom from sex-role stereotypes (Cristall & Dean, 1976; Heidemann, 1977; Pettus, 1976).

Kelly, O'Brien, Phillips, Hosford, and Kinsinger (1977) determined the androgynous individuals to be most effective in social skills, while the undifferentiated were highly ineffective. Major, Deaux, and Carnevale (1981) reported that androgynous subjects were the best liked and perceived as the most adjusted. The undifferentiated subjects in the study were the least liked and perceived as the least adjusted. Sex-typed individuals were mid-way between these two extremes. Similar results were found by Kulick and Harachiewicz (1979).

Relationships to Other Characteristics. Other studies have identified a positive relationship between the androgynous sex-role and a variety of diverse characteristics. Ott (1976) presented a correlation between androgyny and the level of inner-directedness of the individual. Lower trait anxiety correlated with an androgynous sex-role in a study conducted by Pettus (1976). Weber (1978) related androgyny to a tendency toward better decision making. Positive relationships have been found

between an androgynous sex-role identity and nurturance (Bem, 1975; Bem, Martyna, & Watson, 1976), independence (Bem, Martyna, & Watson, 1976), nonverbal expression (LaFrance & Carmen, 1980), dominance behavior (Klein & Willerman, 1979), achievement motivation and performance (Olds & Shaver, 1978; Spence & Helmreich, 1978; Worell, 1978) and greater maturity of moral judgment (Block, 1973).

Androgyny versus Masculinity. Not all of the research results have shown a definitive relationship between an androgynous sex-role and positive measures of psychological adjustment. There is literature which indicates that there is no benefit of androgyny over a masculine sex-role. Both sex-role identities showed a higher relationship to mental health and behavioral flexibility than feminine and undifferentiated sex-roles, but neither was clearly more adaptive than the other. Studies reported that persons with androgynous and masculine sex-roles showed higher achievement motivation and greater interest in competitive interaction (Alagna, 1982; Baxter & Shepherd, 1978; Meyers & Lips, 1978; Spence & Helmreich, 1978). Masculine and androgynous women were most dominant in three-person groups (Klein & Willerman, 1979). Falbo (1977) determined that masculine and androgynous subjects received more positive peer

evaluations than feminine subjects. Androgynous and masculine women appeared to have higher levels of self-actualization than feminine women (Harris, 1977). Androgynous and masculine subjects did not differ on measures of self-esteem; they were both significantly higher than feminine and undifferentiated (Bem, 1977; Kelly & Worell, 1977; Lamke, 1982; Schiff & Koopman, 1978). Gayton, Havu, Barnes, Ozman, and Bassett (1978) associated androgyny and masculine sex-roles with less fear of success. One study (Jones, Chernovetz, & Hansson, 1978) maintained that flexibility and adjustment were ascribed to a masculine sex-role. Subjects of both genders defined the masculine role as more flexible and competent, followed by an androgynous role, with a feminine role being viewed as the least competent and flexible.

Studies on sex-related traits have judged stereotypically masculine traits as possessing greater intrinsic value than stereotypically feminine traits (Broverman, Vogel, Broverman, Clarkson, Rosenkrantz, 1972; McKee & Sherrifs, 1957; Rebecca, Hefner, & Oleshansky, 1968; Rosaldo, 1974; Rosenkrantz, Vogel, Bee, Broverman, & Broverman, 1968. Bernard (1980) noted that when a personality inventory is empirically constructed, as were the major androgyny measurements, the results might reflect a masculine bias. Feminine characteristics might appear

less important in personality measures because they are less obviously utilized in a competitive society. Researchers who reported results which equated masculine and androgynous sex-roles in terms of their desirability, universally referred to these studies as indicative of a bias which might have contributed to the results of their own studies.

Career Development. Limited research has been conducted concerning the androgynous sex-role and its influence on career development. Francesco (1981) found that the masculine applicant was preferred over the androgynous or feminine applicant for jobs considered either masculine or feminine. Androgynous candidates were preferred for the jobs which were considered neutral in regard to sex stereotypes. Welch (1979) reported that more working women were found to be androgynous than non-working women. Professional women were rated as androgynous even more than working women in general.

Several studies have found the androgynous subjects were less conventional and less constrained by sex-role in career versus family orientation and in the choice of non-traditional occupations (Allegeier, 1975, 1976; Chernovetz, Hansson, & Jones, 1977; Garza, 1978; Kamens & Liss-Levinson, 1975; Yanico, 1982). For example, Yanico, Hardin, and McLaughlin (1978) noted that women majoring in

engineering were more androgynous than men in engineering or women in home economics. Lester and Chu (1981) found that women in higher education administration were more likely to be androgynous than men in higher education administration and women teachers.

Literature relating androgyny to leadership or administrative positions in employment is unclear. In general, the masculine sex-role has been associated with an instrumental orientation - concern for getting the job done, while the feminine sex-role has been associated with an expressive orientation - concern for the welfare of others (Bakan, 1966; Barry, Bacon, & Child, 1957; Erickson, 1964). Bartol and Butterfield (1976) found that the consideration behaviors were more valued for female leaders and initiating structure behaviors were more valued for males. These findings appeared to reverse direction and then disappeared in later replications (Butterfield & Bartol, 1977; Butterfield & Powell, 1977).

Attempts to reconcile results such as these led Inderlied and Powell (1979) to conclude that the sex difference in leadership occurred not as a result of gender, but as a result of sex-role identity, concepts which were frequently confused. Korabik (1982) also presented correlational evidence to show that leadership style was more closely related to sex-role orientation. She

reported the masculine sex-role as correlated with initiating structure, the feminine sex-role with consideration, and the androgynous sex-role with both.

Development of the Level of Androgyny. A small number of studies have documented the effects of training programs on the level of androgyny exhibited. Adams (1977) reported on an assertiveness training program for women which significantly increased the participants' level of androgyny. The results indicated that the women had not diminished the level of feminine behaviors exhibited, but had significantly increased the level of masculine behaviors. Gulanick (1977) and Gulanick, Howard, and Moreland (1979) found similar results in a training program in assertiveness and consciousness raising. A two month and a one year follow-up showed the women who took part in the training to have maintained superiority in androgyny and assertiveness. A significant change towards androgyny was reported for women participants only from a coeducational course in the psychology of men and women (Bennett & Grosser, 1981). A personal growth class resulted in significant improvement in levels of androgyny, self-actualization and less traditional sex-role attitudes (McKinley, 1978).

Summary

Leadership research has identified two factors which contribute to effective leadership: consideration, or concern for the welfare of the group, and initiating structure, or concern for the organization and definition of the work to be done. Characteristics considered to be feminine have been associated with consideration; masculine characteristics have been associated with initiating structure.

Leadership appears to be situation specific; to be effective, a leader must assess which leadership style or behavior is most appropriate for the particular variables of each situation and react accordingly.

Although they are seriously underrepresented in leadership positions, research has shown women to be as effective as men in leadership roles. However, characteristics associated with leadership are still those most often associated with males.

The androgynous individual, regardless of gender, has been shown to reflect a balance of traditional masculine and feminine traits.

The androgynous individual has exhibited an ability to demonstrate masculine independence or feminine nurturance when a specific situation called for such behavior.

Androgyny has been associated with greater adjustment and mental health, a greater flexibility of occupational choice, and flexible behavior across a variety of situations.

CHAPTER 3

METHODOLOGY

The purpose of the study was to examine the relationship between perceptions of sex-role identity and leadership effectiveness and adaptability.

Research Questions

1. Is there a relationship between male and female principals in regard to teachers' perceptions of the principal's sex-role identity as measured by the Short BSRI?

2. Is there a relationship between male and female principals in regard to teachers' perceptions of the principal's leadership effectiveness and adaptability as measured by the LEAD-Other?

3. Is there a relationship between elementary and secondary principals in regard to teachers' perceptions of the principal's sex-role identity as measured by the Short BSRI?

4. Is there a relationship between elementary and secondary principals in regard to teachers' perceptions of the principal's leadership effectiveness and adaptability as measured by the LEAD-Other?

5. Is there a relationship among masculine, feminine, androgynous, and undifferentiated principals in regard to teachers' perception of the principal's leadership effectiveness and adaptability as measured by the LEAD-Other?

6. Is there a relationship among demographic variables in regard to teachers' perception of the sex-role of principals as measured by the Short BSRI?

7. Is there a relationship among demographic variables in regard to teachers' perception of the principal's leadership effectiveness and adaptability as measured by the LEAD-Other?

Demographic Variables

Selected demographic variables (community size, school size, sex of teacher, age of teacher, age of principal, years of experience as a principal, years of experience as a teacher, years of experience with the current principal, ethnicity, and teachers with an administrative credential) were analyzed to ascertain their impact on the results.

The Research Sample

A sample of 250 principals was selected from the 1985 edition of the Arizona Department of Education's Arizona Educational Directory. All full-time certificated

principals of schools offering a general academic curriculum for grades kindergarten through sixth and ninth through twelfth were included in the population.

Principals meeting the initial screening criteria were divided into two categories based on the sex of the principal. A random sample of 125 principals were selected from each group using a table of random numbers. Ninety-five per cent of the population of female principals was included in the study to obtain the required sample size, as compared to thirty-seven per cent of the population of male principals.

For those principals who agreed to participate, a random sample of thirty per cent of all full-time certificated teachers in the school was selected. However, a minimum of six teachers was selected for every principal; this represented more than a thirty per cent sample for six schools.

Procedures

Permission to conduct research was sought from each district from which a principal(s) was selected. Upon obtaining permission and a list of certificated teachers for each school participating, questionnaires and survey instruments were sent to each principal and

each teacher in the random sample. All contacts were made through the school address. Each participant was supplied with a self-addressed, stamped envelope for return of all documents. Instruments were numbered to allow for follow-up requests and to enable all data for individual principals to remain intact throughout the data analysis process. Duplicate requests for participation were sent out after four weeks for any survey not returned within that time.

Instrumentation

Each principal was asked to complete a personal characteristics questionnaire. Questions on community size, school size, age of the principal, and years of experience in administration were selected from a study of the principalship conducted by the National Association for Secondary School Principals.

Each teacher was asked to include information on his/her age, sex, ethnicity, years experience as a teacher, years of experience with the current principal and administrative credentials when submitting the survey forms for the principal.

The Short Bem Sex Role Inventory ("Short BSRI") (Bem, 1981) was used to determine the teachers' perception of the sex-role identity of the principal. The Short

BSRI consists of two ten-item scales - masculine and feminine - and ten filler items. The Short BSRI treats masculinity and femininity as independent dimensions and classifies individuals as androgynous, masculine, feminine, or undifferentiated. Individuals scoring above the median of the sample for both scales were classified as androgynous; those below the sample median on both scales were labelled undifferentiated. Sex-typed individuals were those who were perceived above the median on one scale and below it on the other. The sample median was determined utilizing all of the BSRI's for each principal included in the study.

The Leader Effectiveness and Adaptability

Description-Other ("LEAD-Other") (Hersey & Blanchard, 1973) was utilized to assess the teachers' perceptions of their principal's leadership effectiveness and adaptability. The LEAD-Other is designed to provide subordinate perceptions of a leader's effectiveness and range of leadership styles. The instrument consists of descriptions of twelve situations and requires the subordinate to select from four alternative actions the behavior most likely to be exhibited by the leader in response to such a situation. The four alternatives are designed to represent the four major combinations of leadership style in the situational leadership theory:

high task/low relationship, high task/high relationship, low task/high relationship, and low task/low relationship.

Each teacher's perception of the principal's leadership effectiveness was obtained by multiplying the number of times the most desired response was selected by four, the number of second most desired responses selected by three, the number of third most desired responses selected by two, and the number of least desired responses selected by one and summing the results. The most effective leader would score forty-eight; the least effective leader would score twelve.

Each teacher's perception of the principal's leadership adaptability was obtained by first calculating the number of times a particular style was selected and subtracting the number of times for each style from three. The results of the absolute values for the four styles were summed. The sum was subtracted from twenty-four to obtain the adaptability score. The score for the most adaptable leader would be twenty-four; the least adaptable leader would score six.

Analysis of Data

For data analysis, the participants in the study were divided into categories appropriate to the research question being investigated: male principals, female

principals, secondary principals, and elementary principals. Statistical analyses were conducted on each of the categories for all research questions through the use of the chi-square, t-test, and analysis of variance ("ANOVA") methods.

Chi-square is a measure of squared deviations between observed and theoretical numbers in terms of frequencies in categories or cells in a table, determining whether such deviations are due to sampling error or some interdependence or correlation among frequencies (Isaac, p. 116). The chi-square method is appropriate when the categories are discrete or when the traits or characteristics are actually continuous variables that have been categorized as in Research Questions one, three and six.

The t-test answers the question, Is the difference between two sample means statistically significant? It tests the null hypothesis that two samples come from two populations with the same means and differ only because of sampling error (Isaac, p.116). The t-test was utilized in the analysis of data for Research Questions two and four and the demographic variables with only two categories (sex of teacher and administrative certification of teacher) in Research Question seven.

ANOVA tests one or more hypotheses that the means of all the groups sampled come from populations with equal

means and differ only because of sampling error (Isaac, p. 116). ANOVA was utilized to analyze the data in Research Question five as well as the data from the demographic variables with more than two categories in Research Question seven. The ANOVA procedure provided a single composite test to compare all sample means simultaneously to determine whether or not a statistically significant difference existed somewhere in the data.

When a statistically significant difference was found, the Tukey method (Glass & Hopkins, p.371) of multiple comparisons was used to determine which differences in means were significant.

CHAPTER 4

RESULTS OF THE STUDY

Presentation of the results of the study includes a description of both the original random sample of principals and those participating in the study, and a summary of the statistical analysis for each research question.

The Random Sample

The random sample of 250 principals incorporated schools from eighty-two districts within the state of Arizona. The sample included 125 male principals and 125 female principals. The sample of female principals included ninety-seven per cent of the population of female elementary and secondary principals in the state. The sample of male principals represented thirty-seven per cent of the population of male principals.

Forty-nine of the principals randomly selected were in secondary schools. Eleven of the secondary schools had female principals; thirty-eight had male principals. Of the 201 elementary schools included, 114 were headed by female principals and eighty-seven by

male principals. The random sample included four per cent female secondary principals, fifteen per cent male secondary principals, forty-six per cent female elementary principals and thirty-five per cent male elementary principals.

Participants in the Study

Four districts (twelve schools) did not respond to the request for permission to conduct research. Permission to conduct research was denied by five school districts (eighteen schools). Principals in an additional twenty-one schools denied permission to conduct research within their schools. Permission was received from seventeen schools after data collection was concluded.

The final sample of principals participating in the study included 182 principals, ninety male and ninety-two female, representing seventy-three districts. Thirty-eight of the participants were principals of secondary schools. Nine of these were female; twenty-nine were male. Of the 212 elementary principals participating in the study, 149 were female and sixty-three were male. The final sample, therefore, included four per cent female secondary principals, twelve per cent male secondary, fifty-nine per cent female elementary and twenty-five per cent male elementary.

A list of full-time certificated teachers working with each of the 182 principals was obtained. A random sample of thirty per cent of the teachers on each list was drawn. Because a minimum sample of six teachers was desired for each principal, the random sample of teachers selected for six of the principals included forty per cent of the full-time certificated teachers. The maximum number of teachers selected for an individual principal was thirty-two. The median was ten teachers per principal.

Teachers were asked to participate in a research study of the relationship between selected personality characteristics and effective leadership. Surveys were sent to 2,097 teachers. The initial return rate of fifty-eight per cent resulted in 1,216 surveys. Twenty-two of these were incomplete, resulting in 1,194 (fifty-seven per cent) usable instruments. Incomplete surveys were included in the follow-up request for completion of survey forms. After the follow-up request, an additional 628 usable survey forms were returned. The total of 1,822 completed survey represented eighty-seven per cent of the random sample of teachers. The return rate for individual principals ranged from eighty to 100 per cent.

Because the study is based on the relationships among individual teacher's perceptions of three characteristics, the results of each teacher's perceptions of

sex-role identity, leadership effectiveness, and leadership adaptability for the principal were treated as data on a different principal. Data analysis, therefore, is based on survey instruments for 1,822 principals.

Table 2, on the following page, represents a summary of the demographic variables related to teachers. Table 3 represents a summary of the demographic variables related to principals or to the schools.

Summary of Statistical Analysis

The sex-role identity was determined by the Short BSRI utilizing the split median procedure. The median masculine score of the sample was 5.6; the median feminine score was 4.9. Therefore, subjects with a masculine score greater than 5.6 and a feminine score greater than 4.9 were assigned an androgynous sex role. Subjects with scores less than both medians were labelled undifferentiated. Those with a masculine score greater than 5.6 and a feminine score less than 4.9 were considered to be masculine, while those with a masculine score less than 5.6 and a feminine score greater than 4.9 were categorized as feminine. The sample was comprised of 542 principals (thirty per cent) who were classified androgynous, 397 (twenty-two per cent) who were feminine, 468 (twenty-five per cent) who were masculine, and 415 (twenty-three per cent) who were undifferentiated.

Table 2. Percentage of Subjects in the Sample by Teacher Demographic Variable

Sex of Teacher				
<u>Male</u>	<u>Female</u>			
22	78			
Age of Teacher				
<u>20-23</u>	<u>24-34</u>	<u>35-44</u>	<u>45-55</u>	<u>Over 55</u>
3	29	33	26	9
Ethnicity of Teacher				
<u>Caucasian</u>	<u>Hispanic</u>	<u>Black</u>	<u>Native American</u>	
92	5	2	1	
Teacher's Administrative Certification				
<u>Certified</u>		<u>Not Certified</u>		
2		98		
Teacher's Years of Experience				
<u>1</u>	<u>2-5</u>	<u>6-9</u>	<u>10-14</u>	<u>15 or more</u>
2	24	26	17	31

Table 3. Percentage of Subjects in the Sample by Principal/School Demographic Variable

Size of School				
<u>1-175</u>	<u>176-449</u>	<u>450-999</u>	<u>1000 or more</u>	
3	17	50	30	
Size of Community				
Less than <u>15,000</u>	15,000- <u>74,999</u>	75,000- <u>250,000</u>	More than <u>250,000</u>	
23	15	28	34	
Age of Principal				
<u>24-34</u>	<u>35-44</u>	<u>45-54</u>	<u>55 or more</u>	
5	27	49	19	
Ethnicity of Principal				
<u>Caucasian</u>	<u>Hispanic</u>	<u>Black</u>	<u>Native American</u>	
91	2	6	1	
Principal's Years of Experience				
<u>1</u>	<u>2-5</u>	<u>6-9</u>	<u>10-14</u>	<u>15 or more</u>
2	30	35	25	8
Teacher's Years of Experience with the Principal				
<u>1</u>	<u>2-5</u>	<u>6-9</u>	<u>10-14</u>	
17	61	19	3	

The summary of statistical analysis is presented for Research Questions one through five individually. The data analysis for each of the demographic variables (Research Questions six and seven) is presented together. Tables 4 through 10 summarize the data.

Table 4. Research Question One: Sex of Principal and Sex Role Identity

<u>Statistical Method</u>	<u>.001 Level of Significance</u>	<u>Obtained Value</u>
Chi Square	16.27	142.20

Table 5. Research Question Two: Sex of Principal and Leadership Effectiveness and Adaptability

Effectiveness				
<u>Statistical Method</u>	<u>\bar{X}</u>	<u>SD</u>	<u>.001 Level of Significance</u>	<u>Obtained Value</u>
t-test	28.80	6.53	3.29	0.14
Adaptability				
<u>Statistical Method</u>	<u>\bar{X}</u>	<u>SD</u>	<u>.001 Level of Significance</u>	<u>Obtained Value</u>
t-test	14.02	3.40	3.29	-1.02

Table 6. Research Question Three: Grade Level of School and Sex Role of Principal

<u>Statistical Method</u>	<u>.001 Level of Significance</u>	<u>Obtained Value</u>
Chi Square	16.27	56.59

Table 7. Research Question Four: Grade Level of School and Leadership Effectiveness and Adaptability

Effectiveness				
Statistical Method	\bar{X}	SD	.001 Level of Significance	Obtained Value
t-test	28.40	6.32	3.29	-3.16
Adaptability				
Statistical Method	\bar{X}	SD	.001 Level of Significance	Obtained Value
t-test	14.02	3.78	3.29	-1.34

Table 8. Research Question Five: Sex Role and Leader-Leadership Effectiveness and Adaptability

Effectiveness						
Statistical Method	Source of Variance	df	SS	MS	F	p
ANOVA	Between	3	33,740.17	11,246.72		
	Within	1818	47,419.13	26.08	431.19	*
Adaptability						
Statistical Method	Source of Variance	df	SS	MS	F	p
ANOVA	Between	3	7,716.95	2,572.32		
	Within	1818	16,229.60	8.93	288.14	*

* Significant at the .001 level

Table 9. Research Questions Six and Seven: Teacher Demographic Variables, Sex Role, and Leadership Effectiveness and Adaptability

Sex of Teacher Sex Role				
<u>Statistical Method</u>			<u>.001 Level of Significance</u>	<u>Obtained Value</u>
Chi Square			16.27	5.85

Sex of Teacher Effectiveness				
<u>Statistical Method</u>	<u>\bar{X}</u>	<u>SD</u>	<u>.001 Level of Significance</u>	<u>Obtained Value</u>
t-test	29.11	6.41	3.29	1.10

Sex of Teacher Adaptability				
<u>Statistical Method</u>	<u>\bar{X}</u>	<u>SD</u>	<u>.001 Level of Significance</u>	<u>Obtained Value</u>
t-test	14.18	3.50	3.29	0.47

**Table 9 (cont.). Research Questions Six and Seven:
Teacher Demographic Variables, Sex Role, and
Leadership Effectiveness and Adaptability**

Age of Teacher Sex Role						
Statistical Method			.001 Level of Significance		Obtained Value	
Chi Square			32.91		24.24	

Age of Teacher Effectiveness						
Statistical Method	Source of Variance	df	SS	MS	F	p
ANOVA	Between	5	808.96	161.79		
	Within	1816	80,350.34	44.22	3.66	

Age of Teacher Adaptability						
Statistical Method	Source of Variance	df	SS	MS	F	p
ANOVA	Between	5	261.97	52.39		
	Within	1816	23,966.65	13.19	3.97	

* Significant at the .001 level

**Table 9 (cont.). Research Questions Six and Seven:
Teacher Demographic Variables, Sex Role, and
Leadership Effectiveness and Adaptability**

Ethnicity of Teacher Sex Role						
Statistical Method			.001 Level of Significance		Obtained Value	
Chi Square			27.88		14.88	

Ethnicity of Teacher Effectiveness						
Statistical Method	Source of Variance	df	SS	MS	F	p
ANOVA	Between	3	136.58	45.53		
	Within	1818	81,022.72	44.57	3.66	

Ethnicity of Teacher Adaptability						
Statistical Method	Source of Variance	df	SS	MS	F	p
ANOVA	Between	3	48.54	16.18		
	Within	1818	23,898.02	13.15	3.97	

* Significant at the .001 level

**Table 9 (cont.). Research Questions Six and Seven:
Teacher Demographic Variables, Sex Role, and
Leadership Effectiveness and Adaptability**

**Administrative Certification of Teacher
Sex Role**

<u>Statistical Method</u>	<u>.001 Level of Significance</u>	<u>Obtained Value</u>
Chi Square	16.27	6.33

**Administrative Certification of Teacher
Effectiveness**

<u>Statistical Method</u>	<u>\bar{X}</u>	<u>SD</u>	<u>.001 Level of Significance</u>	<u>Obtained Value</u>
t-test	28.81	6.44	3.29	0.03

**Administrative Certification of Teacher
Adaptability**

<u>Statistical Method</u>	<u>\bar{X}</u>	<u>SD</u>	<u>.001 Level of Significance</u>	<u>Obtained Value</u>
t-test	13.53	2.65	3.29	-1.05

**Table 9 (cont.). Research Questions Six and Seven:
Teacher Demographic Variables, Sex Role, and
Leadership Effectiveness and Adaptability**

**Teacher's Years of Teaching Experience
Sex Role**

<u>Statistical Method</u>	<u>.001 Level of Significance</u>	<u>Obtained Value</u>
Chi Square	32.91	21.03

**Teacher's Years of Teaching Experience
Effectiveness**

<u>Statistical Method</u>	<u>Source of Variance</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
ANOVA	Between	4	121.75	30.44		
	Within	1817	31,037.55	17.08	1.78	

**Teacher's Years of Teaching Experience
Adaptability**

<u>Statistical Method</u>	<u>Source of Variance</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
ANOVA	Between	4	49.13	12.28		
	Within	1818	23,897.43	13.15	0.93	

* Significant at the .001 level

Table 10. Research Questions Six and Seven: Principal or School Demographic Variables, Sex Role, and Leadership Effectiveness and Adaptability

Size of School Sex Role						
Statistical Method			.001 Level of Significance			Obtained Value
Chi Square			27.88			68.05

Size of School Effectiveness						
Statistical Method	Source of Variance	df	SS	MS	F	p
ANOVA	Between	3	2,431.66	810.55		
	Within	1818	78,727.65	43.30	18.72	*

Size of School Adaptability						
Statistical Method	Source of Variance	df	SS	MS	F	p
ANOVA	Between	3	212.20	70.73		
	Within	1818	23,734.35	13.06	5.42	*

* Significant at the .001 level

**Table 10 (cont.). Research Questions Six and Seven:
Principal or School Demographic Variables,
Sex Role, and Leadership Effectiveness and
Adaptability**

Size of Community Sex Role						
Statistical Method			.001 Level of Significance		Obtained Value	
Chi Square			27.88		83.57	

Size of Community Effectiveness						
Statistical Method	Source of Variance	df	SS	MS	F	p
ANOVA	Between	3	1,670.12	556.71		
	Within	1818	79,489.18	43.72	12.73	*

Size of Community Adaptability						
Statistical Method	Source of Variance	df	SS	MS	F	p
ANOVA	Between	3	148.09	49.36		
	Within	1818	23,798.46	13.09	3.77	

* Significant at the .001 level

**Table 10 (cont.). Research Questions Six and Seven:
Principal or School Demographic Variables,
Sex Role, and Leadership Effectiveness and
Adaptability**

Ethnicity of Principal
Sex Role

Statistical Method	.001 Level of Significance	Obtained Value
Chi Square	27.88	31.72

Ethnicity of Principal
Effectiveness

Statistical Method	Source of Variance	df	SS	MS	F	p
ANOVA	Between	3	1,432.62	477.54		
	Within	1818	79,726.69	43.85	10.89	*

Ethnicity of Principal
Adaptability

Statistical Method	Source of Variance	df	SS	MS	F	p
ANOVA	Between	3	279.74	93.25		
	Within	1818	23,666.81	13.02	7.16	*

* Significant at the .001 level

**Table 10 (cont.). Research Questions Six and Seven:
Principal or School Demographic Variables,
Sex Role, and Leadership Effectiveness and
Adaptability**

**Principal's Years of Experience
Sex Role**

<u>Statistical Method</u>	<u>.001 Level of Significance</u>	<u>Obtained Value</u>
Chi Square	32.91	254.71

**Principal's Years of Experience
Effectiveness**

<u>Statistical Method</u>	<u>Source of Variance</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
ANOVA	Between	4	5,140.31	1,285.08		
	Within	1817	76,018.99	41.84	30.72	*

**Principal's Years of Experience
Adaptability**

<u>Statistical Method</u>	<u>Source of Variance</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
ANOVA	Between	4	1,318.34	329.59		
	Within	1817	22,628.21	12.45	26.47	*

* Significant at the .001 level

**Table 10 (cont.). Research Questions Six and Seven:
Principal or School Demographic Variables,
Sex Role, and Leadership Effectiveness and
Adaptability**

Age of Principal Sex Role							
Statistical Method			.001 Level of Significance				Obtained Value
Chi Square			27.88				86.66

Age of Principal Effectiveness						
Statistical Method	Source of Variance	df	SS	MS	F	p
ANOVA	Between	3	1,568.51	522.84		
	Within	1818	79,590.79	43.78	11.94	*

Age of Principal Adaptability						
Statistical Method	Source of Variance	df	SS	MS	F	p
ANOVA	Between	3	463.39	154.46		
	Within	1818	23,483.17	12.92	11.96	*

* Significant at the .001 level

**Table 10 (cont.). Research Questions Six and Seven:
Principal or School Demographic Variables,
Sex Role, and Leadership Effectiveness and
Adaptability**

**Teacher's Years of Experience with Principal
Sex Role**

<u>Statistical Method</u>	<u>.001 Level of Significance</u>	<u>Obtained Value</u>
Chi Square	27.88	50.79

**Teacher's Years of Experience with Principal
Effectiveness**

<u>Statistical Method</u>	<u>Source of Variance</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
ANOVA	Between	3	1,186.31	395.44		
	Within	1818	79,883.00	43.94	9.00	*

**Teacher's Years of Experience with Principal
Adaptability**

<u>Statistical Method</u>	<u>Source of Variance</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
ANOVA	Between	3	549.40	183.13		
	Within	1818	23,397.16	12.87	14.23	*

* Significant at the .001 level

CHAPTER 5

DISCUSSION OF RESULTS

The discussion of the results includes a summary of results, discussion of significance found in the analysis of data, conclusions, and recommendations for further research and investigation.

Summary of Results and Discussion of Significance

The percentage of subjects in the sample classified in specific sex-roles is consistent with percentages found in the original validation study of the BSRI (Bem, 1974; Bem 1977) and confirmed by researchers in other studies. The consistency of the results in assigning persons to sex-roles lends support to the concept of utilizing the BSRI not only as a self-report instrument, but also to determine perceptions of sex-roles by others.

Median masculine and feminine scores for this sample, however, appear to deviate from those in prior research. In the original validation study for the BSRI, Bem (1977) reported a median masculine score of 4.89 and a median feminine score of 4.76. Other studies (e.g., Hoffman & Fidell, 1979) have reported median scores

similar to those in Bem's study. While the median feminine (4.9) score falls within the range which might be expected from previous research, the median masculine score for the study (5.6) appears to be higher than that found in other studies. In addition, there is a greater difference between the masculine and feminine median scores for the sample. A difference of less than .20 between median scores has been reported in many studies. The difference between the masculine and feminine medians of .70 may be significant.

The subjects of the study have chosen, through advanced training in administration, to prepare for leadership and management positions. They have also been recognized by others as capable of serving in a leadership role. In light of the research which relates masculine characteristics with characteristics of managers (e.g., Schein, 1973), it might be expected that a sample consisting entirely of managers would have a higher median score on the masculine scale, as found in the study.

Results of Data Analysis

Results of the data analysis are summarized for Research Questions one through five individually. The results for each demographic variable in Research Questions six and seven are presented together.

Research Question One. Research Question one investigated the relationship between male and female principals in regard to teachers' perceptions of the principal's sex-role identity as measured by the Short BSRI. Significance at the .001 level of confidence was found utilizing the Chi square procedure. No difference was found in the probability of a principal of either sex to be androgynous or undifferentiated. Male and female principals were as likely to be perceived in these sex-roles.

The sample included fifty-three per cent male principals and forty-seven per cent female principals. Fifty-two per cent of the principals perceived as androgynous were male; forty-eight per cent were female. The principals perceived as undifferentiated were fifty-three per cent male and forty-seven per cent female.

The significant difference occurred for those principals perceived to be sex-typed. It was more probable that these principals would be perceived to be same-sex-typed than it was for them to be perceived as cross-sex-typed. Sex-typed principals were almost two times more likely to be perceived as same-sex-typed, i.e., female principals as feminine and male principals as masculine.

These results are consistent with findings of previous research in the area of androgyny. Prior studies have confirmed the likelihood for sex-typed individuals to be same-sex-typed as opposed to cross-sexed typed, while androgynous and undifferentiated categories show a balance of males and females (e.g., Chernovetz, Hansson, & Jones, 1977).

Research Question Two. Research Question two examined the relationship between male and female principals in regard to teachers' perceptions of the principal's leadership effectiveness and adaptability as measured by the LEAD-Other. No significant differences were found at the .001 level using the t-test of means. Male and female principals were perceived to be equally effective and adaptable.

The mean of the effectiveness score for male principals was 28.80; the effectiveness score mean for female principals was 28.76. For male principals, the mean of the adaptability score was 14.02, while the mean for female principals was 14.19. Results support research which indicated that, in spite of the stereotypes of effective leaders as male, female principals are perceived to be as effective as male principals (Fishel & Pottker, 1975; Frasher & Frasher, 1979).

Research Question Three. Research Question three investigated the relationship between elementary and secondary principals in regard to teachers' perceptions of the principal's sex-role as measured by the Short BSRI. Significance at the .001 level was found using the Chi square procedure. No difference was found in the probability of either elementary or secondary principals to be perceived as either androgynous or undifferentiated. The sample consisted of sixty-two per cent elementary principals and thirty-eight secondary principals. Sixty-three per cent of the principals perceived to be androgynous were elementary principals and thirty-six per cent were secondary principals. Of those principals perceived as undifferentiated, sixty-one per cent were elementary and thirty-nine per cent secondary.

A significant difference occurred for those principals perceived as sex-typed. Elementary principals were perceived as feminine, and secondary principals perceived as masculine, one-and-one-half times more than would be expected.

In light of the results of Research Question one, which indicated that sex-typed individuals were more likely to be same-sex-typed than cross-sex-typed, the data was examined not only by grade level, but also gender of principal within the grade level divisions.

Analysis indicated that the perception of sex-typed elementary principals as feminine and secondary principals as masculine crossed gender lines.

Research Question Four. Research Question four investigated the relationship between grade level of school and the perception of the principal's leadership and effectiveness. No significant differences were found at the .001 level using the t-test of means. Elementary and secondary principals were perceived as equally effective and adaptable. The mean score of leadership effectiveness was 28.39 for elementary principals and 29.14 for secondary. Mean adaptability scores were 14.02 and 14.25 respectively.

Research Question Five. Research Question five examined the relationship among androgynous, feminine, masculine, and undifferentiated principals in regard to teachers' perceptions of the principal's leadership effectiveness and adaptability as measured by the LEAD-Other. Significance was found at the .001 level of confidence utilizing the ANOVA procedure. The Tukey multiple comparison method revealed that the androgynous sex-role was found to be perceived as significantly more effective and adaptable than any of the other three sex-role identities. No significance was found between

any of the other sex-roles and leadership effectiveness and adaptability.

The results provide support for previous research which has indicated that the androgynous sex role was more adaptive and provided for more flexible behavior and a wider range of responses (e.g., Bem, Martyna, & Watson, 1976). The androgynous principals had a mean leadership adaptability score of 17.23, while the mean for feminine principals was 13.16, masculine principals 12.57, and undifferentiated principals 12.48. The androgynous principals were viewed as exhibiting a wider range of leadership styles than principals perceived as any other sex-role type.

Not only were the androgynous principals viewed as showing a broader range of responses, they were also viewed as significantly more effective, indicating that the style of response chosen was appropriate to the situation. The mean effectiveness score for the androgynous principal was 35.18, feminine 26.98, masculine 25.12, and undifferentiated 25.32.

The strength of the relationship between the androgynous principal and the selection of a range of appropriate leadership responses provided support for the situational leadership theories which considered task orientation (masculine characteristics), initiating

structure (feminine characteristics) and the situation to be the major aspects of effective leadership.

Research Questions Six and Seven. Research Questions six and seven examined the relationship between selected variables and the teachers' perception of the principal's sex-role as measured by the BSRI and the teachers' perception of the principal's effectiveness and adaptability as measured by the LEAD-Other. Results will be summarized according to variables. Analysis of sex-role identity was done using the Chi square procedure; leadership effectiveness and adaptability was analyzed through use of either the t-test or ANOVA. Significance was evaluated for all variables at the .001 level of confidence.

The data provided by the analysis of the variables must be viewed cautiously. The variables are certainly not discrete. Community size and school size are obviously related in many cases. School size may also be related to level of school as secondary schools tend to be larger than elementary. Age of principal, the principal's years of experience and teacher's years of experience with the principal are interrelated. Therefore, significance within one variable may have influenced the significance across another variable.

Teacher-related Variables. Teacher-related variables included the sex of the teacher, the age of the teacher, the ethnicity of the teacher, the years of teaching experience, and the possession of an administrative certificate. No significant relationship was found between any of these variables and the teachers' perception of the sex-role identity of principals or the teachers' perception of the principal's leadership effectiveness and adaptability.

Principal or School Related Variables. Significance was found between each of the principal/school variables and the teachers' perceptions of sex-role identity and perceptions of leadership effectiveness. Significance was found between each of the principal/school variables and teachers' perceptions of leadership adaptability except size of the community. The Tukey multiple comparison method was utilized to determine the area of significance for each significant relationship found for leadership effectiveness and adaptability.

Principals in schools with 176-449 students were more probably perceived as androgynous, while principals in schools with 450-999 students were more probably perceived to be masculine and less probably perceived as feminine. Principals in schools with 176-449 students were also perceived to be more effective and more

adaptable than schools with 1-175 students, 450-999 students, and schools with over 1000 students. No significance was found between leadership effectiveness and adaptability for any other size school.

Principals from schools in communities with less than 15,000 people were significantly more likely to be perceived as masculine. Principals from schools in communities with 15,000-74,999 people were significantly more probable to be perceived as androgynous. Principals from schools in communities with 15,000-74,999 were perceived as more effective than principals from communities of less than 15,000, 75,000 to 250,000 and over 250,000. No significant differences were found for size of community and leadership adaptability.

Caution should be used in the examination or use of the data on principal ethnicity due to the small numbers of Hispanic and Native American principals included in the sample. They may or may not be representative of the larger population. No differences were found in the probability of Caucasian or black principals to be perceived as androgynous, feminine, masculine, or undifferentiated. Hispanic principals were more probable to be perceived as sex-typed, either masculine or feminine. Native American principals were more probable to be perceived as feminine or undifferentiated. Black

principals were perceived to be more effective than Hispanic and Native American principals. Caucasian principals were perceived to be more adaptable than Hispanic and Native American principals.

Principals twenty-four to thirty-four years of age were less probable, and those forty-five to fifty-four years of age more probable, to be perceived as androgynous. Principals thirty-five to forty-four years of age were more probable to be perceived as undifferentiated. Principals over fifty-five years of age were more probable to be perceived as feminine. The results provide support for a study by Hyde and Phillis (1979) which indicated that the development of androgyny might be a function of age, with the level of androgyny low in youth, rising up to the age of sixty, and low in those over sixty.

Principals forty-five to fifty-four years of age were perceived as more effective than those twenty-four to thirty-four, those thirty-five to fifty-four, and those over fifty-five. Principals forty-five to fifty-four were perceived as more adaptable than principals twenty-four to thirty-four and those over fifty-five.

Principals with two to five years of experience were more probable to be perceived as androgynous. Those with six to nine years of experience were more probable

to be perceived as undifferentiated and those with fifteen or more years were more probable to be perceived as feminine. Principals with two to five years of experience were perceived as more effective and adaptable than those with one year, six to nine years, ten to fourteen years, and fifteen or more years.

Teachers who had worked with a principal for two to five years were significantly more liable to perceive the principal as androgynous while those who had worked with a principal six to nine years were significantly less likely to perceive the principal as androgynous. Teachers who had worked with a principal ten or more years were more apt to perceive the principal as feminine. Teachers who had worked with a principal for two to five years perceived the principal as significantly more effective and more adaptable than those who had worked with the principal six to nine years or more than ten years.

Conclusions

Analysis of the data supported previous research which has shown no significant differences in the perceptions of the effectiveness of male and female leaders. The data in the study showed a very strong relationship, however, between perceived sex-roles and perceptions of leadership effectiveness and adaptability.

Androgynous leaders were perceived as more effective than either sex-typed or undifferentiated individuals. They were also perceived as more adaptable, exhibiting a wider range of leadership styles, than either sex-typed or undifferentiated individuals. These findings support research which indicated that androgynous persons not only exhibit a balance of personality characteristics which are masculine and feminine, but also appear to exhibit a range of behavior which would reflect the masculine/feminine balance.

The perception of greater leadership effectiveness and adaptability of the androgynous principal was generally reflected in the analysis of the principal/school variables. When a category within the variable was found to be more probable to be androgynous, there was also a significance in the perception of greater effectiveness and adaptability of that category, with the exception of leadership adaptability and community size.

Recommendations for Further Research

The strong relationship between perceptions of androgyny and effective leadership is one which should be pursued. Studies providing for external verification of effectiveness and androgyny, as opposed to perceptions of the characteristics, would be beneficial.

Observational studies to verify a leader's actual behaviors as opposed to projections of probable responses should be conducted.

Yarnold (1984) suggested that the fields of inquiry of androgyny, leadership, and conflict resolution research appeared to employ similar constructs, although there had been little cross-referencing between them. The results of the study would certainly provide support for at least a portion of this theory and further investigation would appear beneficial, possibly leading to the integration of these three theories into a more meaningful one.

APPENDIX A

SURVEY INSTRUMENTS

Dear Teacher:

Your district has agreed to participate in a research study designed to look at selected personality traits and their relationship to leadership characteristics.

You were randomly selected to complete two very short questionnaires describing your building principal. All responses will be kept confidential; the surveys are numbered only to ensure that all information on the same principal can be collated and to allow for follow-up contact in the event that the surveys are not returned.

Please return the questionnaires in the attached envelope. Your participation is greatly appreciated.

Please complete the following information about yourself:

Sex _____ Ethnicity _____ Years of Teaching Experience _____
 Age _____ Years of Experience with Current Principal _____
 Do you hold any administrative certificate(s)? _____

On the opposite side of this sheet, you will find listed a number of personality characteristics. Please use those characteristics to describe your building principal. That is, on a scale of 1 to 7, how true of him/her is each of these characteristics? Please do not leave any characteristic unmarked.

Example: sly

Write a 1 if it is never or almost never true that he/she is sly.
 Write a 2 if it is usually not true that he/she is sly.
 Write a 3 if it is sometimes but infrequently true that he/she is sly.
 Write a 4 if it is occasionally true that he/she is sly.
 Write a 5 if it is often true that he/she is sly.
 Write a 6 if it is usually true that he/she is sly.
 Write a 7 if it is always or almost always true that he/she is sly.

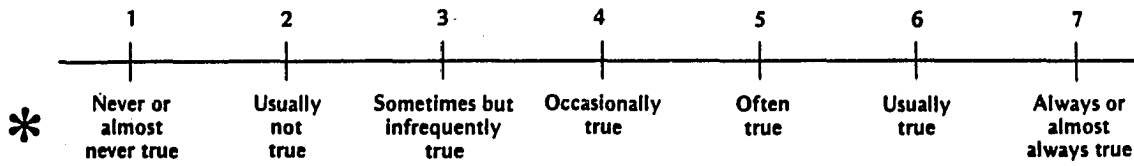
Thus, if you feel it is sometimes but infrequently true that he/she is "sly", never or almost never true that he/she is "malicious", always or almost always true the he/she is "irresponsible", and often true that he/she is "carefree", then you would rate these characteristics as follows:

Sly	3	Irresponsible	7
Malicious	1	Carefree	5

On the following page is a short description of twelve situations. Assume that your principal is involved in each of these situations. Each situation has four alternative actions your principal might initiate. READ each item carefully. THINK about what he/she would do in each circumstance. Then CIRCLE the letter of the alternative choice which you think would most closely describe the behavior of your principal in the situation presented, based upon your experience with him/her. Circle only one choice. Please do not leave any situation unmarked.

Thank you for your participation in this study.

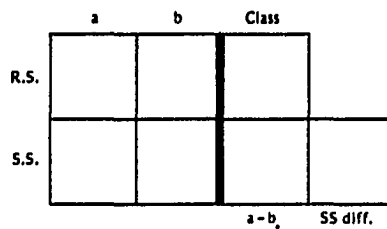
Bem Sex Role Inventory



Defends own beliefs	
Affectionate	
Conscientious	
Independent	
Sympathetic	
Moody	
Assertive	
Sensitive to needs of others	
Reliable	
Strong personality	
Understanding	
Jealous	
Forceful	
Compassionate	
Truthful	
Has leadership abilities	
Eager to soothe hurt feelings	
Secretive	
Willing to take risks	
Warm	

Adaptable	
Dominant	
Tender	
Conceited	
Willing to take a stand	
Loves children	
Tactful	
Aggressive	
Gentle	
Conventional	
Self-reliant	
Yielding	
Helpful	
Athletic	
Cheerful	
Unsystematic	
Analytical	
Shy	
Inefficient	
Makes decisions easily	

Flatterable	
Theatrical	
Self-sufficient	
Loyal	
Happy	
Individualistic	
Soft-spoken	
Unpredictable	
Masculine	
Gullible	
Solemn	
Competitive	
Childlike	
Likable	
Ambitious	
Doesn't use harsh language	
Sincere	
Acts as a leader	
Feminine	
Friendly	



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Leader Effectiveness & Adaptability Description

<p style="text-align: center;">SITUATION</p> <p>1 Subordinates are not responding lately to this leader's friendly conversation and obvious concern for their welfare. Their performance is declining rapidly.</p>	<p style="text-align: center;">ALTERNATIVE ACTIONS</p> <p><i>This leader would . . .</i></p> <p>A. emphasize the use of uniform procedures and the necessity for task accomplishment.</p> <p>B. be available for discussion but would not push his involvement.</p> <p>C. talk with subordinates and then set goals.</p> <p>D. intentionally not intervene.</p>
<p style="text-align: center;">SITUATION</p> <p>2 The observable performance of this leader's group is increasing. The leader has been making sure that all members were aware of their responsibilities and expected standards of performance.</p>	<p style="text-align: center;">ALTERNATIVE ACTIONS</p> <p><i>This leader would . . .</i></p> <p>A. engage in friendly interaction, but continue to make sure all members are aware of their responsibilities and expected standards of performance.</p> <p>B. take no definite action.</p> <p>C. do what could be done to make the group feel important and involved.</p> <p>D. emphasize the importance of deadlines and tasks.</p>
<p style="text-align: center;">SITUATION</p> <p>3 This leader's group is unable to solve a problem. The leader has normally left the group alone. Group performance and interpersonal relations have been good.</p>	<p style="text-align: center;">ALTERNATIVE ACTIONS</p> <p><i>This leader would . . .</i></p> <p>A. work with the group and together engage in problem-solving.</p> <p>B. let the group work it out.</p> <p>C. act quickly and firmly to correct and redirect.</p> <p>D. encourage group to work on problem and be supportive of their efforts.</p>
<p style="text-align: center;">SITUATION</p> <p>4 This leader is considering a change. The leader's subordinates have a fine record of accomplishment. They respect the need for change.</p>	<p style="text-align: center;">ALTERNATIVE ACTIONS</p> <p><i>This leader would . . .</i></p> <p>A. allow group involvement in developing the change, but would not be too directive.</p> <p>B. announce changes and then implement with close supervision.</p> <p>C. allow group to formulate its own direction.</p> <p>D. incorporate group recommendations but direct the change.</p>
<p style="text-align: center;">SITUATION</p> <p>5 The performance of this leader's group has been dropping during the last few months. Members have been unconcerned with meeting objectives. Redefining roles and responsibilities has helped in the past. They have continually needed reminding to have their tasks done on time.</p>	<p style="text-align: center;">ALTERNATIVE ACTIONS</p> <p><i>This leader would . . .</i></p> <p>A. allow group to formulate its own direction.</p> <p>B. incorporate group recommendations, but see that objectives are met.</p> <p>C. redefine roles and responsibilities and supervise carefully.</p> <p>D. allow group involvement in determining roles and responsibilities, but would not be too directive.</p>
<p style="text-align: center;">SITUATION</p> <p>6 This leader stepped into an efficiently run organization. The previous administrator tightly controlled the situation. The leader wants to maintain a productive situation, but would like to begin humanizing the environment.</p>	<p style="text-align: center;">ALTERNATIVE ACTIONS</p> <p><i>This leader would . . .</i></p> <p>A. do what could be done to make group feel important and involved.</p> <p>B. emphasize the importance of deadlines and tasks.</p> <p>C. intentionally not intervene.</p> <p>D. get group involved in decision-making, but see that objectives are met.</p>

<p>7</p> <p>SITUATION</p> <p>This leader is considering changing to a structure that will be new to the group. Members of the group have made suggestions about needed change. The group has been productive and demonstrated flexibility in its operations.</p>	<p>ALTERNATIVE ACTIONS</p> <p><i>This leader would . . .</i></p> <p>A. define the change and supervise carefully. B. participate with the group in developing the change but allow members to organize the implementation. C. be willing to make changes as recommended, but maintain control of implementation. D. avoid confrontation; leave things alone.</p>
<p>8</p> <p>SITUATION</p> <p>Group performance and interpersonal relations are good. This leader feels somewhat unsure about his lack of direction of the group.</p>	<p>ALTERNATIVE ACTIONS</p> <p><i>This leader would . . .</i></p> <p>A. leave the group alone. B. discuss the situation with the group and then he would initiate necessary changes. C. take steps to direct subordinates toward working in a well-defined manner. D. be supportive in discussing the situation with the group but not too directive.</p>
<p>9</p> <p>SITUATION</p> <p>This leader has been appointed by a superior to head a task force that is far overdue in making requested recommendations for change. The group is not clear on its goals. Attendance at sessions has been poor. Their meetings have turned into social gatherings. Potentially they have the talent necessary to help.</p>	<p>ALTERNATIVE ACTIONS</p> <p><i>This leader would . . .</i></p> <p>A. let the group work out its problems. B. incorporate group recommendations, but see that objectives are met. C. redefine goals and supervise carefully. D. allow group involvement in setting goals, but would not push.</p>
<p>10</p> <p>SITUATION</p> <p>Subordinates, usually able to take responsibility, are not responding to the leader's recent redefining of standards.</p>	<p>ALTERNATIVE ACTIONS</p> <p><i>This leader would . . .</i></p> <p>A. allow group involvement in redefining standards, but would not take control. B. redefine standards and supervise carefully. C. avoid confrontation by not applying pressure; leave situation alone. D. incorporate group recommendations, but see that new standards are met.</p>
<p>11</p> <p>SITUATION</p> <p>This leader has been promoted to a new position. The previous manager was uninvolved in the affairs of the group. The group has adequately handled its tasks and direction. Group interrelations are good.</p>	<p>ALTERNATIVE ACTIONS</p> <p><i>This leader would . . .</i></p> <p>A. take steps to direct subordinates toward working in a well-defined manner. B. involve subordinates in decision-making and reinforce good contributions. C. discuss past performance with group and then examine the need for new practices. D. continue to leave the group alone.</p>
<p>12</p> <p>SITUATION</p> <p>Recent information indicates some internal difficulties among subordinates. The group has a remarkable record of accomplishment. Members have effectively maintained long-range goals. They have worked in harmony for the past year. All are well qualified for the task.</p>	<p>ALTERNATIVE ACTIONS</p> <p><i>This leader would . . .</i></p> <p>A. try out his solution with subordinates and examine the need for new practices. B. allow group members to work it out themselves. C. act quickly and firmly to correct and redirect. D. participate in problem discussion while providing support for subordinates.</p>

SELECTED BIBLIOGRAPHY

- Adams, K. (1977). Assertiveness training, androgyny, and professional women. (Doctoral dissertation, The University of Texas at Austin, 1976). Dissertation Abstracts International, 37, 6311B.
- Alagna, S. (1982). Sex role identity, peer evaluation of competition, and the responses of women and men in a competitive situation. Journal of Personality and Social Psychology, 43, 546-554.
- Allegeier, E. R. (1975). Beyond sowing and growing: The relationship of sex typing to socialization, family plans and future orientation. Journal of Applied Social Psychology, 55, 217-226.
- Allegeier, E. R. (1976, May). Heterosexuality and sex typing. Paper presented at the meeting of the Midwestern Psychological Association, Chicago.
- Anastasi, A., & Foley, J. P., Jr. (1949). Differential psychology. New York: Macmillan.
- Anderson, D. R. (1974). Leadership effectiveness in education as related to congruence between human behavior types and leadership styles. (Doctoral dissertation, Western Michigan University, 1973). Dissertation Abstracts International, 34, 6887A.
- Ashour, A. S. (1973). The contingency model of leadership effectiveness: An evaluation. Organizational Behavior and Human Performance, 9, 339-355.
- Bakan, D. (1966). The duality of human existence. Chicago: Rand McNally.
- Bales, R. F. (1958). Task roles and social roles in problem-solving groups. In E. E. Maccoby, T. M. Newcomb, & E. L. Hartley (Eds.), Readings in social psychology. New York: Holt, Rinehart & Winston.

- Bardwick, J. M., & Douvan, E. (1972). Ambivalence: The socialization of women. In J. M. Bardwick (Ed.), Readings on the psychology of women. New York: Harper & Row.
- Barrow, J. C. (1977). The variables of leadership: A review and conceptual framework. Academy of Management Review, 2, 231-251.
- Barry, H., Bacon, M. K., & Child, I. L. (1957). A cross-cultural survey of some sex differences in socialization. Journal of Abnormal and Social Psychology, 55, 327-332.
- Bartol, K., & Butterfield, D. (1976). Sex effects in evaluating leaders. Journal of Applied Psychology, 61, 446-454.
- Bartol, K., & Wortman, M. (1976). Sex effects in leader behavior self-descriptions and job satisfaction. Journal of Psychology, 94, 177-183.
- Bass, B. M. (1967). Social behavior and the orientation inventory: A review. Psychological Bulletin, 68, 260-292.
- Bass, B. M. (1981). Stogdill's handbook of leadership: Revised and expanded edition. New York: The Free Press, MacMillan Publishing.
- Baucom, D. H. (1976). Independent masculine and feminine scales on the California Psychological Inventory. Journal of Consulting and Clinical Psychology, 44, 876.
- Baxter, L. A., & Shepherd, T. L. (1978). Sex-role identity, sex of other, and affective relationship as determinants of interpersonal conflict-management styles. Sex Roles, 4, 813-825.
- Bazin, N. T., & Freeman, A. (1974). The androgynous vision. Women's Studies, 2, 185-215.
- Beck, J. D. W. (1978). Leadership in education: A field test of Hersey-Blanchard's situational leadership theory. (Doctoral dissertation, University of Massachusetts, 1978). Dissertation Abstracts International, 38, 1202-1203A.

- Bem, S. (1981). Bem Sex Role Inventory: Professional manual. Palo Alto, California: Consulting Psychologists Press.
- Bem, S. (1974). The measurement of psychological androgyny. Journal of Consulting and Clinical Psychology, 42, 155-162.
- Bem, S. (1977). On the utility of alternative procedures for assessing psychological androgyny. Journal of Consulting and Clinical Psychology, 45, 196-205.
- Bem, S. (1975). Sex role adaptability: One consequence of psychological androgyny. Journal of Personality and Social Psychology, 31, 634-643.
- Bem, S. (1979). The theory and measurement of androgyny: A reply to the Pedhazur-Tetenbaum and Locksley Colten critiques. Journal of Personality and Social Psychology, 37, 1047-1054.
- Bem, S., & Bem, D. (1975). Training the woman to know her place: The social antecedents of women in the world of work. Palo Alto, California: Stanford University Department of Psychology.
- Bem, S., & Lenney, E. (1976). Sex typing and the avoidance of cross-sex behavior. Journal of Personality and Social Psychology, 31, 48-54.
- Bem, S., Martyna, W., & Watson, C. (1976). Sex-typing and androgyny: Further explorations of the expressive domain. Journal of Personality and Social Psychology, 34, 1016-1023.
- Bem, S., & Watson, C. (1976). Scoring packet: Bem Sex Role Inventory. Unpublished manuscript, Stanford University, Palo Alto, California.
- Bennett, B., & Grosser, G. (1981). Movement toward androgyny in college females through experiential education. Journal of Psychology, 107, 177-183.
- Bergins, J., Welling, M., & Wetter, R. (1978). A new measure of psychological androgyny based on the personality research form. Journal of Consulting and Clinical Psychology, 46, 126-138.

- Bernard, L. (1980). Multivariate analysis of new sex role formulations and personality. Journal of Personality and Social Psychology, 38, 323-336.
- Blake, R. R., & Mouton, J. S. (1964). The managerial grid. Houston: Gulf.
- Bledsoe, J. C., & Brown, S. E. (1977). On the independence of consideration and initiating structure: A factor analysis of the Leader Behavior Description Questionnaire. Psychological Reports, 41, 431-434.
- Block, J. H. (1973). Conceptions of sex role: Some cross-cultural and longitudinal perspectives. American Psychologist, 28, 512-526.
- Bohannon, W., & Mills, C. (1979). Psychometric properties and underlying assumptions of two measures of masculinity/femininity. Psychological Reports, 44, 431-450.
- Bowers, D. G., & Seashore, S. E. (1966). Predicting organizational effectiveness with a four-factor theory of leadership. Administrative Science Quarterly, 11, 238-263.
- Broverman, I. K., Vogel, S. R., Broverman, D. M., Clarkson, F. E., & Rosenkrantz, P. S. (1972). Sex-role stereotypes: A current reappraisal. Journal of Social Issues, 28, 59-78.
- Brown, A. F. (1967). Reactions to leadership. Educational Administration Quarterly, 3, 62-73.
- Brown, S. M. (1979). Male versus female leaders: A comparison of empirical studies. Sex Roles, 5, 595-611.
- Butterfield, D., & Bartol, K. (1977). Evaluation of leader behavior: A missing element in leadership theory. In J. G. Hunt & L. L. Larson (Eds.), Leadership: The cutting edge. Carbondale: Southern Illinois University Press.
- Butterfield, D., & Powell, G. (1977, August). Evaluations of leadership behavior: Do sex or androgyny matter? Paper presented at the Annual Meeting of the American Psychological Association, San Francisco.

- Carlsson, M., & Magnusson, E. (1980). Construct validation of the Bem Sex Role Inventory. Scandinavian Journal of Psychology, 21, 27-31.
- Cartwright, D., & Zander, A. (1960). Group dynamics-research and theory. Evanston, Illinois: Row, Peterson.
- Chernovetz, M. S., Hansson, R. O., & Jones, W. H. (1977, May). Sex typing and sex-related inhibition. Paper presented at the meeting of the Midwestern Psychological Association, Chicago.
- Collins, M., Waters, C., & Waters, L. (1979). Factor analysis of sex-typed items from the Bem Sex Role Inventory: A replication. Psychological Reports, 44, 517-518.
- Comfrey, A. L. (1970). Comfrey Personality Scales manual. San Diego: Educational and Industrial Testing Service.
- Constantinople, A. (1973). Masculinity-femininity: An exception to a famous dictum? Psychological Bulletin, 80, 389-407.
- Cristall, L., & Dean, R. S. (1976). Relationship of sex-role stereotypes and self-actualization. Psychological Report, 39, 842.
- Crowe, B. J., Bochner, S., & Clark, A. W. (1972). The effects of subordinates behavior on managerial style. Human Relations, 25, 215-237.
- Cunningham, J., & Antill, J. (1980). A comparison among five masculinity-femininity-androgyny instruments and two methods of scoring androgyny. Australian Psychologist, 15, 437-448.
- Day, D., & Stogdill, R. (1972). Leader behavior of male and female supervisors: A comparative study. Personnel Psychology, 25, 353-360.
- Deaux, K., & Taynor, J. (1973). Evaluation of male and female ability: Bias works two ways. Psychological Reports, 32, 261-262.

- De Gregorio, E., & Carver, C. S. (1980). Type A behavior pattern, sex-role orientation, and psychological adjustment. Journal of Personality and Social Psychology, 39, 286-293.
- Downey, R., Duffy, P., & Shiflett, S. (1979). Construct validity of leader effectiveness criteria (Report No. 368). Alexandria, Virginia: U. S. Army Research Institute for the Behavioral and Social Sciences.
- Drinkwater, B. (1979). Social desirability of characteristics of the Bem Sex Role Inventory. Australian Psychologist, 14, 311-317.
- Edmonds, R. (1979). Effective schooling for the urban poor. Educational Leadership, 37, 15-24.
- Edwards, A., & Ashworth, C. (1977). A replication study of item selection for the Bem Sex Role Inventory. Applied Psychological Measurement, 1, 501-507.
- Eman, V., & Morse, B. (1978, May). The construct of androgyny: An overview and implications for research. Paper presented at the Conference on Communication, Language, and Sex, Bowling Green, Ohio.
- Eriksen, E. H. (1964). Inner and outer space: Reflections on womanhood. In R. J. Lifton (Ed.), The woman in America, Boston: Houghton Mifflin.
- Eskilson, A., & Wiley, M. G. (1976). Sex composition and leadership in small groups. Sociometry, 39, 183-194.
- Estler, S. E. (1975). Women as leaders in public education. Signs, 1, 363-386.
- Falbo, T. (1977). Relationships between sex, sex role, and social influence. Psychology of Women Quarterly, 2, 62-72.
- Farris, G. F., & Lim, F. G. (1969). Effects of performance on leadership cohesiveness, influence, satisfaction, and subsequent performance. Journal of Applied Psychology, 53, 490-497.

- Feather, N. (1978). Factor structure of the Bem Sex Role Inventory: Implications for the study of masculinity, femininity, and androgyny. Australian Journal of Psychology, 30, 241-254.
- Fiedler, F. E. (1964). A contingency model of leadership effectiveness. In L. Berkowitz (Ed.), Advances in experimental social psychology, New York: Academic Press.
- Fiedler, F. E. (1967). A theory of leadership effectiveness. New York: McGraw-Hill.
- Fishel, A., & Pottker, J. (1975). Performance of women principals: A review of behavioral and attitudinal studies. Journal of NAWDAC, 38, 110-117.
- Flaherty, J., & Dusek, J. (1980). An investigation of the relationship between psychological androgyny and components of self-concept. Journal of Personality and Social Psychology, 38, 984-992.
- Fleishman, E. A. (1957). A leader behavior description for industry. In R. M. Stogdill & A. E. Coons (Eds.), Leader behavior: Its description and measurement, Columbus: Ohio State University, Bureau of Business Research.
- Fleishman, E. A., & Harris, E. F. (1962). Patterns of leadership behaviors related to employee grievances and turnover. Personnel Psychology, 15, 43-56.
- Fleishman, E. A., Harris, E. F., & Burt, H. E. (1955). Leadership and supervision in industry. Columbus: Ohio State University, Bureau of Educational Research.
- Fleishman, E. A., & Simmons, J. (1970). Relationship between leader patterns and effectiveness ratings among Israeli foremen. Personnel Psychology, 23, 169-172.
- Francesco, A. (1981). Gender and sex as determinants of hireability of applicants for gender-typed jobs. Psychology of Women Quarterly, 5, 747-757.

- Frasher, J., & Frasher, R. (1979). Educational administration: A feminine profession. Educational Administration Quarterly, 15, 1-13.
- Galvin, G. A., Plake, B. S., Powers-Alexander, S., & Lambert, D. J. (1984). Causal attributions for success: Lucky women, skillful men? Journal of Educational Equity and Leadership, 4, 203-218.
- Garza, L. (1978). The relationship between innovative career choice and androgyny in a selected group of women. (Doctoral dissertation, East Texas State University, 1978). Dissertation Abstracts International, 39, 3371-3372A.
- Gaudreau, P. (1977). Factor analysis of the Bem Sex Role Inventory. Journal of Consulting and Clinical Psychology, 45, 299-302.
- Gayton, W., Havu, G., Barnes, S., Ozman, K., & Bassett, J. (1978). Psychological androgyny and fear of success. Psychological Reports, 42, 757-758.
- Gayton, W., Havu, G., Ozman, K., & Tavormina, J. (1977). A comparison of the Bem Sex Role Inventory and the PRF ANDRO Scale. Journal of Personality Assessment, 41, 619-621.
- Gelpi, B. C. (1974). The politics of androgyny. Women's Studies, 2, 151-160.
- Glass, G. V., & Hopkins, K. D. (1984). Statistical methods in education and psychology. 2nd ed. Englewood Cliffs, New Jersey: Prentice Hall.
- Goldberg, P. (1968). Are women prejudiced against women? Trans-Action, 5, 28-30.
- Gough, H. G. (1957). Manual for the California Psychological Inventory. Palo Alto, California: Consulting Psychologists Press.
- Graeff, C. L. (1983). The situational leadership theory: A critical view. Academy of Management Review, 8, 285-291.
- Graen, G., Alvarez, K., Orris, J. B., & Martella, J. A. (1970). Contingency model of leadership effectiveness: Antecedent and evidential results. Psychological Bulletin, 74, 285-296.

- Greene, C. N. (1975). The reciprocal nature of influence between leader and subordinate. Journal of Applied Psychology, 60, 187-193.
- Greene, J. F. (1980). A summary of technical information about LEAD. San Diego: Learning Resources Corporation.
- Gulanick, N. (1977). A group program for highly feminine women aimed at increasing androgyny. (Doctoral dissertation, Southern Illinois University, 1976). Dissertation Abstracts International, 38, 898B.
- Gulanick, N., Howard, G. S., & Moreland, J. (1979). Evaluation of a group program designed to increase androgyny in feminine women. Sex Roles, 6, 811-827.
- Hagen, R. L., & Kahn, A. (1975). Discrimination against competent women. Journal of Applied Social Psychology, 5, 362-376.
- Halpin, A. W. (1957). The leader behavior and effectiveness of aircraft commanders. In R. M. Stogdill & A. E. Coons (Eds.), Leader behavior: Its description and measurement. Columbus: Ohio State University, Bureau of Business Research.
- Halpin, A. W. (1959). The leadership behavior of school superintendents. Columbus: Ohio State University Research Foundation.
- Halpin, A. W. (1957). Manual for the Leader Behavior Description Questionnaire. Columbus: Ohio State University, Bureau of Business Research.
- Halpin, A. W., & Winer, B. J. (1957). A factorial study of the leader behavior descriptions. In R. M. Stogdill & A. E. Coons (Eds.), Leader behavior: Its description and measurement. Columbus: Ohio State University, Bureau of Business Research.
- Hambleton, R. K., & Gumpert, R. (1982). The validity of Hersey & Blanchard's theory of leadership effectiveness. Group and Organizational Studies, 7, 225-242.

- Hansot, E., & Tyack, D. (1981). The dream deferred: A golden age for women school administrators (Policy paper No. 81-C2). Palo Alto, California: Stanford University School of Education, Institute for Research on Educational Finance and Governance.
- Hansot, E., & Tyack, D. (1982). The golden age for school administrators. The Stanford Educator, Fall, 1-3.
- Harris, D. A. (1974). Androgyny: The sexist myth in disguise. Women's Studies, 2, 171-184.
- Harris, L. (1977). The relation of androgyny to self-actualization, locus of control, and differential regard for the sexes. (Doctoral dissertation, The Catholic University of America, 1977). Dissertation Abstracts International, 38, 899-900B.
- Hefner, R., Rebecca, M., & Oleshansky, B. (1975). Development of sex role transcendence. Human Development, 18, 143-158.
- Heidemann, G. (1977). Effects of traditional versus non-traditional sex-role orientation on personality androgyny and self-actualization. (Doctoral dissertation, United States International University, 1976). Dissertation Abstracts International, 38, 1468B.
- Heilbrun, A. B. (1976). Measurement of masculine and feminine sex role identities as independent dimensions. Journal of Consulting and Clinical Psychology, 44, 183-190.
- Heilbrun, A. B., & Pitman, D. (1979). Testing some basic assumptions about psychological androgyny. Journal of Genetic Psychology, 135, 175-188.
- Heilbrun, C. G. (1973). Toward a recognition of androgyny. New York: Harper.
- Helmreich, R., Spence, J., & Holahan, C. (1979). Psychological androgyny and sex role flexibility: A test of two hypotheses. Journal of Personality and Social Psychology, 37, 1631-1644.

- Hemphill, J. K. (1955). Leader behavior associated with the administrative reputations of college departments. Journal of Educational Psychology, 46, 385-401.
- Hemphill, J. K., Griffiths, D. E., & Frederiksen, H. (1962). Administrative performance and personality. New York: Teachers College Press.
- Hemphill, J. K., Seigel, A., & Westie, C. W. (1951). An exploratory study of relations between perceptions of leader behavior, group characteristics, and expectations concerning the behavior of ideal leaders. Columbus: Ohio State University, Personnel Research Board.
- Hendrix, W. (1976). Contingency approaches to leadership: A review and synthesis (Report No. TR-76-17). Lackland, Texas: Air Force Human Resources Lab.
- Hersey, P., & Blanchard, K. (1973). Leader Effectiveness and Adaptability Description. San Diego: Center for Leadership Studies.
- Hersey, P., & Blanchard, K. (1969). Management of organizational behavior. Englewood Cliffs: Prentice Hall.
- Hersey, P., & Blanchard, K. (1972). Management of organizational behavior: Utilizing human resources. 2nd ed. Englewood Cliffs: Prentice Hall.
- Hersey, P., & Blanchard, K. (1977). Management of organizational behavior: Utilizing human resources, 3rd ed. Englewood Cliffs, New Jersey: Prentice Hall.
- Hersey, P., & Blanchard, K. (1974). So you want to know your leadership style? Training and Development Journal, 28, 1-15.
- Hills, R. J. (1963). The administrative function: Neglected dimension of leadership behavior. Administrative Science Quarterly, 8, 83-101.

- Hinrichsen, J., Follansbee, D., & Ganellen, R. (1981). Sex-role-related differences in self-concept and mental health. Journal of Personality Assessment, 45, 584-592.
- Hoferek, M. J. (1981). Factor analysis of the Bem Sex Role Inventory using data from physical educators (ERIC Document Reproduction Service No. ED 221 603)
- Hoffman, D., & Fidell, L. (1979). Characteristics of androgynous, undifferentiated, masculine, and feminine middle-class women. Sex Roles, 5, 765-781.
- Hollander, E. P. (1958). Conformity, status, and idiosyncrasy credit. Psychological Review, 65, 117-127.
- Hollander, E. P. (1964). Leadership, innovation, and influence. New York: Oxford University Press.
- Hollander, E. P., & Julian, J. W. (1969). Contemporary trends in the analysis of leadership processes. Psychological Bulletin, 71, 387-397.
- Homans, G. C. (1950). The human group. New York: Harcourt.
- House, R. J. (1971). A path goal theory of leadership effectiveness. Administrative Science Quarterly, 16, 321-338.
- House, R. J., & Dessler, G. (1974). The path goal theory of leadership: Some post hoc and a priori tests. In J. G. Hunt & L. L. Larson (Eds.), Contingency approaches to leadership. Carbondale: Southern Illinois University Press.
- House, R. J., Filley, A. C., & Kerr, S. (1971). Relation of leader consideration and initiating structure to R and D subordinates' satisfaction. Administrative Science Quarterly, 16, 19-30.
- Inderlied, S. D., & Powell, G. (1979). Sex-role identity and leadership style: Different labels for the same concept? Sex Roles, 5, 613-625.

- Isaac, S. (1971). Handbook in research and evaluation. San Diego, California: EdITS Publishers.
- Jackson, D. N. (1967). Personality Research Form manual. Goshen, New York: Research Psychologists Press.
- Jago, A. G. (1982). Leadership: perspectives in theory and practice. Management Science, 28, 315-336.
- Jago, A. G., & Vroom, V. H. (1975). Perceptions of leadership style: Superior and subordinate descriptions of decision making behavior. In J. G. Hunt & L. L. Larson (Eds.), Leadership frontiers. Kent, Ohio: Kent State University.
- Johnson, R. W., & Ryan, B. J. (1976). A test of the contingency model of leadership effectiveness. Journal of Applied Social Psychology, 6, 177-185.
- Jones, W., Chernovetz, M., & Hansson, R. (1978). The enigma of androgyny: Differential implications for males and females? Journal of Consulting and Clinical Psychology, 46, 298-313.
- Kagan, J. (1964). Acquisition and significance of sex-typing and sex-role identity. In M. L. Hoffman & L. W. Hoffman (Eds.), Review of child development research (Vol. 1). New York: Russell Sage Foundation.
- Kahn, R. L. (1958). Human relations of the shop floor. In E. M. Hugh-Jones (Ed.), Human relations and modern management. Amsterdam: North-Holland Publishing Co.
- Kamens, L., & Liss-Levinson, N. (1975, August-September). Effect of sex role on career development and aspirations. Paper presented at the meeting of the American Psychological Association, Chicago.
- Kaplan, A., & Bean, J. (Eds.). (1976). Beyond sex-role stereotypes: Readings towards a psychology of androgyny. Boston: Little, Brown.

- Katz, D., Maccoby, N., & Morse, N. C. (1950). Productivity, supervision, and morale in an office situation. Ann Arbor: University of Michigan, Institute for Social Research.
- Katzell, R. A., Barrett, R. S., & Parker, T. C. (1961). Job satisfaction, job performance, and situational characteristics. Journal of Applied Psychology, 45, 65-72.
- Kelly, J., Furman, W., & Young, V. (1978). Problems associated with the typological measurement of sex roles and androgyny. Journal of Consulting and Clinical Psychology, 46, 1574-1576.
- Kelly, J., O'Brien, G., Phillips, J., Hosford, R., & Kinsinger, R. (1977, May). Interpersonal consequences of sex-typing and androgyny: A behavioral analysis. Paper presented at the Annual Meeting of the Southeastern Psychological Association, Hollywood, Florida.
- Kelly, J., & Worell, J. (1977). New formulations of sex roles and androgyny: A critical review. Journal of Consulting and Clinical Psychology, 45, 1101-1115.
- Kerr, S., & Harlan, A. (1973). Predicting the effects of leadership training and experience from the contingency model: Some remaining problems. Journal of Applied Psychology, 57, 114-117.
- Kerr, S., & Schriesheim, C. (1974). Consideration, initiating structure, and organizational climate: An update of Forman's 1966 review. Personnel Psychology, 27, 555-568.
- Kerr, S., Schriesheim, C., Murphy, C. J., & Stogdill, R. M. (1974). Toward a contingency theory of leadership based upon the consideration and initiating structure literature. Organizational Behavior and Human Performance, 12, 62-82.
- Kinsell-Rainey, L. (1976). Achievement and attribution patterns as a function of sex-role interpretations: A comparison of androgynous and stereotyped college students. (Doctoral dissertation, Southern Illinois University, 1976). Dissertation Abstracts International, 37, 3521A.

- Klein, H., & Willerman, L. (1979). Psychological masculinity and femininity, and typical maximal dominance expression in women. Journal of Personality and Social Psychology, 37, 2059-2070.
- Kohlberg, L. (1966). A cognitive developmental analysis of children's sex-role concepts and attitudes. In E. E. Maccoby (Ed.), The development of sex differences. Stanford, California: Stanford University Press.
- Komarovsky, M. (1946). Cultural contradictions and sex roles. American Journal of Sociology, 52, 184-189.
- Korabik, K. (1982). Sex-role orientation and leadership style. International Journal of Women's Studies, 5, 329-337.
- Korman, A. (1966). "Consideration", "Initiating Structure", and organizational criteria - A review. Personnel Psychology, 19, 349-361.
- Kulick, J. A., & Harachiewicz, J. (1979). Opposite-sex interpersonal attraction as a function of the sex roles of the perceiver and the perceived. Sex Roles, 5, 443-452.
- LaFrance, M., & Carmen, B. (1980). The nonverbal display of psychological androgyny. Journal of Personality and Social Psychology, 38, 36-49.
- Lamke, L. (1982). The impact of sex-role orientation on self-esteem in early adolescence. Child Development, 53, 1530-1535.
- Larwood, L., & Wood, M. M. (1977). Women in management. Lexington, Massachusetts: D. C. Heath
- Lenney, E. (1979). Androgyny: Some audacious assertions toward its coming of age. Sex Roles, 5, 703-719.
- LeSage, P. (1974). Measuring leadership attitude: A construct validation study. (Doctoral dissertation, The University of Michigan, 1973). Dissertation Abstracts International, 34, 4107B.

- Lester, P., & Chu, L. (1981). Women administrators: Feminine, masculine or androgynous? Journal of Educational Equity and Leadership, 1, 171-179.
- Likert, R. (1961). An emerging theory of organization, leadership, and management. In L. Petruccio & B. M. Bass (Eds.), Leadership and interpersonal behavior. New York: Holt.
- Lockheed, M. E. (1977). Cognitive style effects on sex status in student work groups. Journal of Educational Psychology, 69, 158-165.
- Lord, R. G., Binning, J., Rush, M. C., & Thomas, J. C. (1978). Effect of performance and leader behavior on questionnaire ratings of leader behavior. Organizational Behavior and Human Performance, 21, 27-39.
- Lowen, A., & Craig, J. R. (1968). The influence of level of performance on managerial style: An object lesson in the ambiguity of correlational data. Organizational Behavior and Human Performance, 3, 440-458.
- Loxley, J. (1977). Sex-role androgyny and its effect in self-esteem, adjustment and performance on sex-appropriate and sex-inappropriate tasks. (Doctoral dissertation, Southern Illinois University, 1976). Dissertation Abstracts International, 38, 2374B.
- Lubinski, D., Tellegen, A., & Butcher, J. (1981). The relationship between androgyny and subjective indicators of emotional well-being. Journal of Personality and Social Psychology, 40, 722-730.
- Lubinski, D., Tellegen, A., & Butcher, J. (1983). Masculinity, femininity, and androgyny viewed and assessed as distinct concepts. Journal of Personality and Social Psychology, 44, 427-439.
- Luessenheide, D., & Vandever, J. (1978). Independence of sex-role and gender identity. Psychological Reports, 42, 821-822.

- Lyon, C. D., & Saario, T. N. (1973). Women in public education: Sexual discrimination in promotions. Phi Delta Kappan, 55, 120-123.
- Major, B., Carnevale, P., & Deaux, K. (1981). A different perspective on androgyny: Evaluations of masculine and feminine personality characteristics. Journal of Personality and Social Psychology, 41, 988-1001.
- Mann, F. C. (1965). Toward an understanding of the leadership role in formal organizations. In R. Durbin (Ed.), Leaders and productivity. San Francisco: Chandler.
- Markham, S. E., & Scott, K. D. (1983). A component factor analysis of the initiating structure scale of the Leader Behavior Description Questionnaire, Form XII. Psychological Reports, 52, 71-77.
- Massengill, D., & DiMarco, N. (1979). Sex-role stereotypes and requisite management characteristics: A current replication. Sex Roles, 5, 561-570.
- McKee, J. P., & Sheriffs, A. C. (1957). The differential evaluation of males and females. Journal of Personality, 25, 346-371.
- McKinley, M. (1978). The effect of a psychology of personal growth course on levels of self-actualization and psychological androgyny in mature women students. (Doctoral dissertation, Loyola University, 1978). Dissertation Abstracts International, 39, 1346-1347A.
- McMahon, J. T. (1972). The contingency theory: Logic and methodology revisited. Personnel Psychology, 25, 697-711.
- Megargee, E. (1969). Influence of sex roles on the manifestation of leadership. Journal of Applied Psychology, 53, 377-382.
- Meyer, P. (1975). Women executives are different. Dun's Review, 105, 47-48.
- Mitchell, T. R., Biglan, A., Oncken, G. R., & Fielder, F. E. (1970). The contingency model: Criticism and suggestions. Academy of Management Journal, 13, 253-267.

- Mitchell, T. R., Larson, J. R., & Green, S. G. (1977). Leader behavior, situational moderators, and group performance: An attributional analysis. Organizational Behavior and Human Performance, 18, 254-268.
- Moreland, J., Gulanick, N., Montague, E., & Harren, V. (1978). Some psychometric properties of the Bem Sex Role Inventory. Applied Psychological Measurement, 2, 249-256.
- Motowidlo, S. (1981). A scoring procedure for sex-role orientation based on profile similarities indices. Educational and Psychological Measurement, 41, 735-745.
- Myers, A., & Gonda, G. (1982). Utility of masculinity-femininity construct: Comparisons of traditional and androgyny approaches. Journal of Personality and Social Psychology, 43, 514-522.
- Myers, A., & Lips, H. (1978). Participation in competitive amateur sports as a function of psychological androgyny. Sex Roles, 4, 571-578.
- Myers, A., & Sugar, J. (1979). A critical analysis of scoring the BSRI: Implications for conceptualization. JSAS Catalog of Selected Documents in Psychology, 9, 24. (Ms. No. 1833).
- Nevill, D. (1977). Sex roles and personality correlates. Human Relations, 30, 751-759.
- O'Connor, K., Mann, D., & Bardwick, J. (1978). Androgyny and self-esteem in the upper-middle class: A replication of Spence. Journal of Consulting and Clinical Psychology, 46, 1168-1169.
- Olds, L. (1976). An exploratory study of androgyny: A sex role construct that integrates male and female polarities. (Doctoral dissertation, University of Cincinnati, 1976). Dissertation Abstracts International, 37, 2519-2520B.
- Olds, D. E., & Shaver, P. (1978). Masculinity, femininity, academic performance, and health: Further evidence concerning the androgyny controversy. Journal of Personality, 48, 323-341.

- O'Leary, V. (1974). Some attitudinal barriers to occupational aspirations in women. Psychological Bulletin, 81, 809-826.
- Olmstead, J. A. (1967). The skill of leadership. Military Review, 47 (3), 62-70.
- Orlofsky, J., Aslin, A., & Ginsburg, S. (1977). Differential effectiveness of two classification procedures on the Bem Sex Role Inventory. Journal of Personality Assessment, 41, 414-416.
- Orlofsky, J., & Windle, M. T. (1978). Sex-role orientation, behavioral adaptability and personal adjustment. Sex Roles, 4, 801-812.
- Osborn, R. N., & Vicars, W. M. (1976). Sex stereotypes: An artifact in leader behavior and subordinate satisfaction analysis? Academy of Management Journal, 19, 439-449.
- Ott, T. (1976). Androgyny, sex role attitudes and self-actualization among college women. (Doctoral dissertation, University of Notre Dame, 1976). Dissertation Abstracts International, 37, 3527A.
- Parsons, T., & Bales, R. F. (1955). Family socialization and interaction process. New York: Free Press of Glencoe.
- Pedhazur, E., & Tetenbaum, T. (1979). Bem Sex Role Inventory: A theoretical and methodological critique. Journal of Personality and Social Psychology, 37, 996-1016.
- Pepinsky, P. N., Hemphill, J. K., & Shevitz, R. N. (1958). Attempts to lead, group productivity and morale under conditions of acceptance and rejection. Journal of Abnormal Social Psychology, 57, 47-54.
- Pettus, J. (1976). Psychological androgyny: Construct validation and relationship to mental health and sex stereotypes. (Doctoral dissertation, University of Montana, 1976). Dissertation Abstracts International, 37, 2575B.
- Pleck, J. (1975). Masculinity-femininity: Current and alternative paradigms. Sex Roles, 1, 161-178.

- Powell, G. N., & Butterfield, D. A. (1979). The female leader: Attributional effects of group performance. Psychological Reports, 47, 891-897.
- Powell, G. N., & Butterfield, D. A. (1982). Sex, attributions, and leadership: A brief review. Psychological Reports, 51, 1171-1174.
- Puglisi, J. (1980) Equating the social desirability of Bem Sex Role Inventory masculinity and femininity subscales. Journal of Personality Assessment, 44, 272-276.
- Rebecca, M., Hefner, R., & Oleshansky, B. (1976). A model for sex-role transcendence. Journal of Social Issues, 32, 197-206.
- Reddin, W. J. (1977). An integration of leader-behavior typologies. Group and Organization Studies, 2, 282-295.
- Reddin, W. J. (1967). The 3-D management theory: A typology based on task and relation orientations. Training and Development Journal, 21, 8-17.
- Rice, R. W. (1978). Psychometric properties of the Esteem for the Least Preferred Coworker (LPC) scale. Academy of Management Review, 3, 106-118.
- Rosaldo, M. Z. (1974). Woman, culture, and society: A theoretical overview. In M. Z. Rosaldo & L. Lamphere (Eds.), Women, culture, and society. Stanford, California: Stanford University Press.
- Rosenkrantz, P. Vogel, S., Bee, H., Broverman, I., & Broverman, D. (1968). Sex-role stereotypes and self concept in college students. Journal of Consulting and Clinical Psychology, 32, 287-295.
- Rowland, R. (1977). The Bem Sex Role Inventory. Australian Psychologist, 12, 83-88.
- Rowland, R. (1980). The Bem Sex Role Inventory and its measurement of androgyny. Australian Psychologist, 15, 449-457.

- Rush, M. C., Thomas, J. C., & Lord, R. G. (1977). Implicit leadership theory: A potential threat to the internal validity of leader behavior questionnaires. Organizational Behavior and Human Performance, 20, 93-110.
- Russell, G., Antill, J., & Cunningham, J. (1978). The measurement of masculinity, femininity and androgyny: A reply to Rowland (1977). Australian Psychologist, 13, 41-50.
- Saari, B. B. (1976). Contingency theories of leadership: Are they meaningful? (Doctoral dissertation, Michigan State University, 1976). Dissertation Abstracts International, 36, 6390-6391B.
- Sargent, A. (1981a). The androgynous manager. New York: American Management Associations.
- Sargent, A. (1981b). Training men and women for androgynous behaviors in organizations. Group and Organization Studies, 6, 302-311.
- Schein, V. (1973). The relationship between sex-role stereotypes and requisite management characteristics. Journal of Applied Psychology, 57, 95-100.
- Schein, V. (1975). Relationships between sex role stereotypes and requisite management characteristics among female managers. Journal of Applied Psychology, 60, 340-344.
- Schiff, E., & Koopman, E. (1978). The relationship of women's sex-role identity to self-esteem and ego development. Journal of Psychology, 98, 299-305.
- Schriesheim, C. A., & Bird, B. J. (1979). Contributions of the Ohio State studies to the field of leadership. Journal of Management, 5, 135-145.
- Schriesheim, C. A., & Kerr, S. (1977). R.I.P. LPC: A response to Fiedler. In J. G. Hunt & L. L. Larson (Eds.), Leadership: The cutting edge. Carbondale: Southern Illinois University Press.

- Schriesheim, C. A., & Stogdill, R. M. (1975). Differences in factor structure across three versions of the Ohio State leadership scales. Personnel Psychology, 28, 189-206.
- Senneker, P., & Hendrick, C. (1983). Androgyny and helping behavior. Journal of Personality and Social Psychology, 45, 916-925.
- Shiflett, S. C. (1973). The contingency model of leadership effectiveness: Some implications of its statistical and methodological properties. Behavioral Set, 18, 429-440.
- Silvern, L. E., & Ryan, V. (1979). Self-rated adjustment and sex-typing on the Bem Sex Role Inventory: Is masculinity the primary predictor of adjustment? Sex Roles, 5, 739-763.
- Small, A., Erdwins, C., & Gross, R. (1979). A comparison of the Bem Sex Role Inventory and the Heilbrun Masculinity and Femininity Scales. Journal of Personality Assessment, 43, 393-394.
- Smith, P. (1977, July). Talking about androgyny: Getting there is half the fun. Paper presented at the Welsh Branch of the British Psychological Association Conference on Sex-role Stereotyping, Cardiff, Wales.
- Spence, J., & Helmreich, R. (1978). Masculinity & femininity: Their psychological dimensions, correlates & antecedents. Austin: University of Texas Press.
- Spence, J., & Helmreich, R. (1979). On assessing "androgyny". Sex Roles, 5, 721-738.
- Spence, J., & Helmreich, R. (1972). Who likes competent women? Competence, sex-role congruence of interests and subjects' attitudes toward women as determinants of interpersonal attraction. Journal of Applied Social Psychology, 2, 197-213.
- Spence, J., Helmreich, R., & Stapp, J. (1975). Ratings of self and peers on sex role attributes and their relation to self-esteem and conceptions of masculinity and femininity. Journal of Personality and Social Psychology, 32, 29-29.

- Stansbury, K., Thomas, L., & Wiggins, T. (1984). Women in leadership and implications for affirmative action. Journal of Educational Equity and Leadership, 2, 99-113.
- Stinson, J. E., & Tracy, L. (1974). Some disturbing characteristics of the LPC score. Personnel Psychology, 27, 471-485.
- Stodgill, R. M. (1948). Personal factors associated with leadership: A survey of the literature. Journal of Psychology, 25, 35-71.
- Stogdill, R. M. (1969). Validity of leader behavior descriptions. Personnel Psychology, 22, 153-158.
- Stogdill, R. M., Wherry, R. J., & Jaynes, W. E. (1953). Patterns of leader behavior: A factorial study of navy officers. Columbus: Ohio State University.
- Strahan, R. (1975). Remarks on Bem's measurement of psychological androgyny: Alternative methods and a supplementary analysis. Journal of Consulting and Clinical Psychology, 43, 568-571.
- Templer, A. J. (1973). Self-perceived and others-perceived leadership style using the Leader Behavior Description Questionnaire. Personnel Psychology, 26, 359-367.
- Thomas, S. (1983). Is self-esteem a masculine characteristic? Journal of Educational Equity and Leadership, 3, 29-37.
- Tunnell, G. (1981). Sex role and cognitive schemata: Person perception in feminine and androgynous women. Journal of Personality and Social Psychology, 40, 1126-1136.
- Vecchio, R. P. (1977). An empirical examination of the validity of Fiedler's model of leadership effectiveness. Organizational Behavior and Human Performance, 19, 180-206.
- Vroom, V. H. (1964). Work and motivation. New York: McGraw-hill.

- Vroom, V. H., & Mann, F. C. (1960). Leader authoritarianism and employee attitude. Personnel Psychology, 13, 125-140.
- Wakefield, J., Sasek, J., Friedman, A., & Bowden, J. (1976). Androgyny and other measures of masculinity-femininity. Journal of Consulting and Clinical Psychology, 44, 766-770.
- Walkup, H., & Abbott, R. (1978). Cross-validation of item selection on the Bem Sex Role Inventory. Applied Psychological Measurement, 2, 63-71.
- Waters, C., Waters, L., & Pincus, S. (1977). Factor analysis of masculine and feminine sex-typed items from the Bem Sex Role Inventory. Psychological Reports, 40, 567-570.
- Weber, R. (1978). Masculine, feminine, and androgynous personalities in group decision-making: An analysis of performance and process. (Doctoral dissertation, California School of Professional Psychology, 1976). Dissertation Abstracts International, 38, 4546-4547B.
- Welch, R. (1979). Androgyny and derived identity in married women with varying degrees of non-traditional role involvement. Psychology of Women Quarterly, 3, 308-315.
- Whetton, J. S., & Swindells, A. (1977). Psychological androgyny and interpersonal behavior. Journal of Consulting and Clinical Psychology, 46, 40-52.
- Wilson, F. R., & Cook, E. (1984). Concurrent validity of four androgyny instruments. Sex Roles, 11, 813-837.
- Wiggins, J., & Holzmuller, A. (1981). Further evidence on androgyny and interpersonal behavior. Journal of Research in Personality, 15, 67-80.
- Worrel, J. (1978). Sex roles and psychological well-being: Perspectives on methodology. Journal of Consulting and Clinical Psychology, 46, 777-791.
- Yanico, B. (1982). Androgyny and occupational sex-stereotyping of college students. Psychological Reports, 50, 875-878.

- Yanico, B., Hardin, S., & McLaughlin, K. (1978). Androgyny and traditional versus nontraditional major choice among college freshmen. Journal of Vocational Behavior, 12, 261-269.
- Yarnold, P. R. (1984). Note on the multidisciplinary scope of the psychological androgyny theory. Psychological Reports, 54, 936-938.
- Yonge, G. (1978). The Bem Sex Role Inventory: use with caution if at all. Psychological Reports, 43, 1245-1246.
- Yukl, G. A. (1981). Leadership in organizations. Englewood Cliffs, New Jersey: Prentice Hall.