

SITUATIONAL EFFECTS ON GENDER ROLE PERCEPTIONS  
IN WOMEN: A LOOK AT THE VALIDITY OF  
THE BEM SEX ROLE INVENTORY

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Validity of the Bem Sex Role Inventory

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SITUATIONAL EFFECTS ON GENDER ROLE PERCEPTIONS  
IN WOMEN: VALIDITY OF THE BEM  
SEX ROLE INVENTORY

ABSTRACT

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Validity of the Bem Sex Role Inventory was examined in a descriptive interaction comparisons design study using volunteers from women attending a large women's health issues conference. Four null hypotheses designed to test variance in selection of the BSRI attributes on the basis of sex and situational needs for each of the BSRI classification groups were tested using three versions of the instrument. Participants were instructed to complete one questionnaire to describe themselves, the second to describe men or women in American society, and the third to describe a man or woman in a vignette situation were placed in random order in a packet along with a personal background information sheet and a letter of explanation. Ninety-one completed questionnaires were returned anonymously by mail to the researcher.

Multiple regression of the feminine and masculine scale scores and the personal characteristics indicated

that employment status, educational level, and religious preference exerted influence on part of the scale scores. Discriminant function analysis performed following significant MANOVA results for an analysis of the impact of the order in which the questionnaires appeared in the packet on scale scores demonstrated that over 50% and as much as 75% of the variance on the three masculine scales in the second packet could be attributed to the questionnaire's placement. MANOVA results for each of the four hypotheses were nonsignificant leading to acceptance of the null hypothesis in each case.

Comparison of the results with previous studies lead to the conclusion that although validity of the BSRI could not be ruled out, failure of feminine and masculine subjects to discriminate in selection of attributes on the basis of sex and of androgynous and undifferentiated subjects to differentiate on the basis of situational needs did not supply evidence of content and construct validity. The changing perception of sex roles and expansion of nursing research methodology to include phenomenology were considered as impetus for nurses to conduct phenomenological studies of femininity and masculinity with incorporation of the results in existing or new sex role

instruments before conducting further nursing research on sex role identification.



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## CHAPTER I

### INTRODUCTION

Today's women lack a clear definition of the feminine role. They are confronted with conflicting opinions about the best means for achieving their potential. The primary views of the feminine role parallel the two perspectives of role theory. Traditional women follow the structural view of role as a specific set of behaviors determined by society and enacted without variance or interpretation. Nontraditional women approach role from the symbolic interactionist perspective with behaviors selected on the basis of situational needs and behavioral cues from the other individuals involved. In an attempt to measure the degree of identification with the two feminine role perspectives, researchers developed a number of instruments in the 1970s. Among the tools was the Bem Sex Role Inventory (BSRI) (Bem, 1974).

The BSRI marked a change in the conceptualization of gender roles. Rather than viewing femininity and masculinity as polar constructs on a single continuum, Bem placed them in an orthogonal relationship and designed the tool to measure each construct separately (Bem, 1974). The instrument allowed a researcher to differentiate between

the traditional, or sex typed, woman and the nontraditional, or androgynous, woman. Bem's instrument quickly became popular with researchers investigating gender roles.

In the years since the publication of the BSRI, a number of theoretical and methodological issues arose (Gaudreau, 1977; Locksley & Colten, 1979; Spence, Helmreich, & Stapp, 1975; Strahan, 1975). Further problems resulted from inconsistent or contradictory findings in research studies using the instrument (Alter, 1984; Andersen & Bem, 1981; Bem, 1977; Brouse, 1985; Deutsch & Gilbert, 1976; Minningerode, 1976; Zeldow, 1976). Such difficulties with an instrument lead to concerns regarding its validity. A closer examination of the content and construct validity seems warranted.

#### Problem of Study

The problem may be stated in two parts:

1. To determine whether women with a structured gender role perspective change the attributes perceived as useful for individuals when situational factors are specified, and
2. To determine whether women with a symbolic interactionist gender role perspective change the

attributes perceived as useful for individuals when the sex of the individual is specified.

#### Purpose of the Study

The purpose of the study was to examine the content and construct validity of the BSRI by determining whether women attending a large women's health issues conference differentiate gender role behaviors in a manner consistent with the gender role perspective identified by their responses on the BSRI.

#### Rationale for the Study

Validity reflects the degree to which an instrument represents the entity it is purported to measure (Waltz, Strickland, & Lenz, 1984). A clear definition of the construct being measured is basic to all forms of validity. Using the definition of the construct, content validity addresses the adequacy of the construct's representation in the instrument (Shelley, 1984). Although content validity generally is associated with cognitive measures, it also is important for affective measures to insure accurate delineation of all of the dimensions of the construct. In that capacity content validity serves as a base for construct validity. Construct validity assesses the ability of the instrument to actually measure the amount of

the construct possessed by the individual or displayed in that person's behavior (Waltz et al., 1984).

Reliability and validity are required for instruments to insure accuracy in the inferences made in research studies. Changes in social views like those involving women's roles in the 1980s may influence significantly the validity of an instrument developed at an earlier time. A potential for bias also exists with the use of stereotypical views of femininity and masculinity in establishing the behavioral descriptors (Hunter College Women's Studies Collective [HCWSC], 1983). The BSRI's use of stereotypes and its static conceptualization of femininity despite the continued evolution of women's roles during the 1980s places content validity and in turn construct validity in tenuous positions. Further, the inferences drawn from the studies using the instrument must be questioned.

Mental health and maternal-child health researchers have used the BSRI in studies involving women and gender roles (Alter, 1984; Bem, 1977; Brouse, 1985; Feller, 1985; Jordan-Viola, Fossberg, & Viola, 1976; Lenz, Soeken, Rankin, & Fischman, 1985). Future research to examine women's mental and physical health status within the context of the changing social scene was recommended by



McBride (1987) in urging the establishment of a women's mental health research agenda. However, inconsistent or contradictory results arising from some previous studies using the BSRI place its future use in a questionable position. After using the BSRI in a study on abortion outcome, Alter (1984) expressed strong concerns about the instrument's validity.

The BSRI has been challenged on a number of counts, and although the present study has added information about abortion that may be useful to the practitioner, more coherent conclusions of the relationship between sex roles and abortion outcome must await further validation of the currently available measures of sex-role constructs. (p. 232)

McBride (1987) recognized the challenge facing nurses in implementing research involving psychosocial variables because of the "difficulty encountered in finding valid and reliable instruments capable of measuring complex behaviors" (p. 7).

#### Theoretical Framework

Role may be defined as a group of behaviors exhibited by an individual within a social structure. Role theory is characterized by the symbolic interaction and social structural perspectives. The two views differ primarily in the manner in which they focus on the theory's concepts (Hardy, 1985). Position, social system, perception, decision schema, and role behavior are common concepts.

Position identifies the role as it occurs within a structured portion of society, or social system. When an individual incorporates position and social system with perception, a decision schema uses information from all three to determine the role behaviors or outcomes (Bem, 1981b; Hardy, 1985; Hardy & Conway, 1978; King, 1981). A framework continuing the structural and symbolic interactionist perspectives of role theory and gender role theory is used in the study. A description of each is followed by a discussion of the framework.

#### Symbolic Interaction

The initial ideas for symbolic interaction arose from Mead (1934) as he attempted to explain how individuals adapted to a changing environment by examining their interactions. Mead's "self" described the portion of the individual involved in interaction. When interaction occurred within the individual, it was labeled as the "mind." When the individual directed the interaction toward others, "society" was involved (Charon, 1979; Morris, 1952).

Charon (1979) extended Mead's (1934) theory and defined other concepts including symbols, perception, roletaking, acts, and interaction. Perception was considered as the definition of reality through sensory

experience involving the meanings attributed to social objects or activities included in symbols. Roletaking required accurate perception as the individual attempted to view the situation from another's role. Acts consisted of the process of impulse (motivation), perception, manipulation, and consummation culminating in interaction when conducted in a social setting (Charon, 1979). The concepts of symbolic interaction were combined in a manner recognizing the dynamic nature of society. The theory focused on "individuals in reciprocal social interaction who actively construct and create their environment through a process of self-reflexive interaction" (Hardy, 1985, p. 38). The theory neglected to identify the character of involvement in the social system as well as the influence of society on the individual's behavior.

#### Structural

Park and Burgess (1921) initially linked roles to the social structure. Linton (1936) followed Park and Burgess by distinguishing between status, the definition of the position, and role, the process of enacting the position (Hardy, 1985). Structural role focused more on society than on the individual and interaction involved in the role. Social structures were seen as influencing and controlling the individual's behavior.

Parsons (1951) incorporated complex conceptual structures into the social systems, and Merton (1968) delineated several other concepts in developing his functional analysis. Cultural goals and institutional norms were viewed as the primary social influences on social behavior. Acceptance or rejection of cultural goals and institutional norms occurred in five possible forms. Conformity signified acceptance of both cultural goals and institutional norms, and retreatism represented rejection of both. Innovation denoted rejection of cultural goals and acceptance of institutional norms, and ritualism described the opposite. Rebellion delineated "rejection of prevailing values and substitution of new values for both" (Merton, 1968, p. 194). Structural role theory linked the concepts in a manner which focused on "the bigger picture" (Hardy, 1985, p. 38), with analysis emphasizing the structure of society rather than the individual in society.

### Gender Role

Current theories of gender role follow the structural and symbolic interactionist perspectives. Butler (1981) described the structural view in noting the continued existence of stereotypic femininity which encourages dependence upon men, nurturing behaviors, attention to physical attributes, a vicarious approach to life, and

avoidance of power and self-reliance. Androgyny, a theory discussed by Bem (1976), encompassed the freedom from the restrictive stereotyped behaviors assigned on the basis of role and the ability to determine behavior based upon situational cues and needs. Thus, androgyny resembled the more flexible, process-oriented symbolic interactionist perspective.

Theories on the development of gender roles also parallel the general role theory perspective. Social learning theory approached gender role development from a structural view. Promotion of stereotypical gender behaviors through reinforcement and modeling was aided by use of positive and negative social rewards (Frieze, Parsons, Johnson, Ruble, & Zellman, 1978; HCWSC, 1983). Cognitive-developmental theory, arising from the work of Piaget and Kohlberg, addressed the symbolic interaction approach to role. As a child's cognitive abilities developed, attitudes and behaviors were categorized into a schema for determining behaviors to use in enacting a gender role. When faced with gender-role situations, the child selected behaviors in the schema allowing the greatest fulfillment of the role in the situation (Frieze et al., 1978; HCWSC, 1983).

A view of feminine role superimposed on general role theory is used in the study. The stereotypic view of femininity is considered a structured view of role while the androgynous perspective is equated with symbolic interaction. The use of social views in defining stereotypes and the rigid interpretation of the role based on external influences related traditional femininity to structural role. The flexibility and freedom in selection of behaviors which best meet situational needs merge androgyny and symbolic interactionism. In the study a person with strong identification with the stereotypic gender role behaviors will be viewed as having a structured gender role perspective, and a person with a flexible approach to gender role, who is unconcerned about the label placed on a particular behavior will, be viewed as having a symbolic interaction perspective.

#### Assumptions

Assumptions drawn from structural, symbolic interaction, traditional feminine role, and androgyny theories pertinent to the study include:

### Structural-Traditional

1. Roles hold static positions in the social system with specific expected behaviors and requirements reinforced by positive and negative rewards.
2. Individuals portray roles without interpreting any underlying meanings.
3. Individuals rely on learned responses when enacting roles.

### Symbolic Interaction-Androgyny

4. Each behavior exhibited by an individual is the result of interpretation of previous communication.
5. Individuals create the reality surrounding roles and select behaviors based upon their perception of that reality.
6. Structure cannot determine which behaviors will be selected in a given situation.

Two additional theoretical assumptions were used in the construction of the BSRI and impact on the study. Bem (1981a) assumed:

1. Largely as a result of historical accident, contemporary American culture has clustered heterogeneous attributes into two mutually exclusive categories, each category considered both more characteristic of and more desirable for females or males; these cultural expectations and prescriptions are well known by virtually all members of the culture.

2. Individuals vary in the extent to which they use these cultural definitions as idealized standards of femininity and masculinity for evaluating their own personality and behavior. (p. 10)

### Hypotheses

Propositions from the structural and symbolic interactional perspectives serve as the source for the study's hypotheses. Hypotheses for the study are:

- HO<sub>1</sub>: Women classified as feminine on the BSRI will not vary their selection of gender-appropriate attributes for individuals in general and in specific situations.
- HO<sub>2</sub>: Women classified as masculine on the BSRI will not vary their selection of gender-inappropriate attributes for individuals in general and in specific situations.
- HO<sub>3</sub>: Women classified as androgynous on the BSRI will not vary their selection of attributes for individuals in general and in specific situations as the sex of the individual involved changes.
- HO<sub>4</sub>: Women classified as undifferentiated on the BSRI will not vary their selection of attributes for individuals as the sex or situation changes.



### Definition of Terms

1. Symbolic interaction gender role perspective--view of gender role as a flexible group of behaviors to be selected according to shared information and situational needs. Operationally the term refers to an androgynous classification on the BSRI.
2. Structural gender role perspective--view of gender role as gender-appropriate behaviors specifically determined by society regardless of the setting or individuals involved. Operationally, the term refers to a feminine classification for women or masculine classification for men on the BSRI.
3. Feminine role--behaviors perceived as desirable for women. Operationally, feminine role signifies attributes endorsed by the female participant as often, usually, almost always, or always beneficial for women in American society or the woman in the given vignette.
4. Masculine role--behaviors perceived as desirable for men. Operationally, masculine role refers to attributes endorsed by the female participant as often, usually, almost always, or always beneficial for men in American society or the man in the given vignette.
5. Gender-role instrument--measurement tool determining the degree of identification with masculine and

feminine attributes. Operationally, the term refers to the Bem Sex Role Inventory.

6. Gender-typed woman--woman identifying with feminine gender-role attributes. Operationally, a gender-typed woman refers to feminine classification (high feminine, low masculine scores) on the BSRI.

7. Gender cross-typed woman--woman identifying with masculine gender-role attributes. Operationally, the term refers to masculine classification (high masculine, low feminine scores) on the BSRI.

8. Androgynous woman--woman identifying with both masculine and feminine gender-role attributes. Operationally, the term refers to androgynous classification (high masculine and feminine scores) on the BSRI.

9. Undifferentiated woman--woman identifying with neither masculine nor feminine gender-role attributes. Operationally, the term refers to undifferentiated classification (low masculine and feminine scores) on the BSRI.

10. Vignettes--vignettes are "short, compact descriptions which exemplify the concept under consideration." (Flaskerud, 1979, p. 210) Operationally, vignettes represent the home and work situations developed

with the potential for resolution in either a gender-stereotyped manner or an androgynous manner and displaying no obvious bias toward one gender or the other.

#### Limitations

1. The sample consists of volunteer subjects from the designated population group without random selection.

2. The findings can only be generalized to women who meet the same criteria as the sample and reside in a specific area.

3. Since no control is made of the data collection in the home, women may share their ratings of themselves and the general and situational attribute ratings.

#### Summary

In Chapter 1 the need to review the validity of instruments measuring women, the BSRI in particular, was established as an issue in the women's mental health research agenda set for nurses. A synthesis of structural, symbolic interaction, and gender role theories was outlined as the framework for the study. Assumptions from the theoretical perspectives and the development of the BSRI were delineated. Theory propositions were used in identifying four hypotheses. The hypotheses were designed to determine whether women differentiate gender role

behaviors in a manner consistent with their gender role perspective identified by the BSRI. Chapter 1 concluded with the definition of terms and limitations. The theoretical framework, instruments, and research design provided the basis for the definitions and limitations.

## CHAPTER II

### REVIEW OF THE LITERATURE

Establishment of the validity of a gender role instrument begins with definitions of femininity, masculinity, and androgyny. Once the definitions are in place, previous studies examining the instrument provide further information about validity and identify any problem areas. Finally, studies using the instrument furnish cumulative evidence with regard to validity. Each of these areas will be discussed in relation to the BSRI.

#### Gender Roles

Pyke (1980) outlined six phases in describing the evolution of gender roles. The first phase, labeled as undifferentiated, included the time period of the gradual emerging of awareness of sex differences but the rigors related to survival precluded any significant differentiation. As gender roles moved into the biological phase, attention was focused on the physical sex differences. Women's roles became specialized in relation to the decreased physical strength and childbearing responsibilities. The mystique surrounding women's role in procreation generated fear which was handled by "limited disparagement focused primarily on their biological

distinctions" (p. 29). Rigid gender role separation occurred during the polarity phase with rationalization of women's subjugation extended to include psychological, moral, and intellectual weaknesses. Economically, industrialization and capitalism assisted with the differentiation between men and women. Departure from the polar view arose when technological advances, improved birth control, and employment of women during wartime provided women with other options. Social acceptance of the change characterized the deviation phase. Androgyny was outlined as the next phase, typified by flexibility in gender roles and adoption of attributes from both roles. Transcendence of gender roles completed the evolutionary process with gender roles ceasing to exist.

Movement of gender roles from the deviation phase to androgyny began in the 1970s with the development of gender role instruments which separated masculinity and femininity into distinct dimensions (Bem, 1974; Spence, Helmreich, & Stapp, 1974). Bem's definition of androgyny addressed the possession of both masculine and feminine attributes, stressing the blending of the two. Brown (1986) noted that Bem's definition did not "deny the reality of masculinity and femininity, but only the notion that they must be negatively related" (p. 332).

Bem's (1974) definitions of femininity and masculinity appeared in the form of scales for her instrument. Undergraduate psychology students were asked to rate 200 personality characteristics "that seemed to the author and several students to be both positive in value and either masculine or feminine in tone" (Bem, 1974, p. 156). The characteristics were rated in terms of desirability either for a man or a woman in American society. Each judge rated the characteristics for only one sex, and the ratings were required to be considered significantly desirable for the man or woman by judges of both sexes to be included in the corresponding scale.

Bem (1974) stressed the cultural nature of the definitions for masculinity and femininity which followed traditional values. Each scale eventually contained 20 items. A third scale was developed of 10 socially desirable items and 10 socially undesirable items which had neither feminine or masculine associations. Individuals initially were defined operationally as masculine or feminine if their respective scores were high on the appropriate scale and low on the other scale; all other individuals were classified as androgynous. A change in the scoring method separated the undifferentiated

individuals, scoring low on both scales, from the androgynous individuals, scoring high on both scales.

Following the development of the scales, research on gender roles rapidly mounted, moving androgyny from infancy into childhood. By the end of the 1970s, difficulties in comparing research studies signaled the adolescent identity crisis of androgyny. Lenney (1979), who worked with Bem in developing the BSRI, attributed the problem to differences in the operationalization of androgyny and outlined four significant problems which needed to be overcome in order for the concept to complete its development. Lenney considered value-ossification, the first problem, particularly surprising since the concept of androgyny arose from an attempt to avoid the narrow and limited view of masculinity and femininity as polar concepts. She cautioned about the loss of new research ideas and interpretations of results when a concept was bound by too rigid a definition. Her second concern emanated from questionable assumptions about the definition of androgyny. Differences in operational interpretations of the concept led to inappropriate selection of a particular instrument or generalization of a study's conclusions.

The absence of a clear theoretical framework in research studies resulted in Lenney's (1979) third problem



with androgyny's identity. Ambiguity in description of a theoretical framework or omission of the framework entirely fostered "tremendous confusion in the literature and makes the task of sorting out the important from the trivial, the relevant from the irrelevant, all but impossible" (p. 710). Her final concern encompassed the isolation of gender role research from development in related areas. Viewing androgyny and gender roles as a segment of personality research in general, Lenney warned against generalizations which overlooked new ideas about personality.

The 1980s brought questions about femininity, masculinity, and androgyny which confirmed some of Lenney's (1979) concerns. Lubinski, Tellegan, and Butcher (1983) unsuccessfully attempted to demonstrate that androgyny existed as a distinct construct. Factor analyses, discussed in the next section, consistently identified masculinity and femininity as multidimensional constructs (Gaudreau, 1977; Moreland, Gulanick, Montague, & Harren, 1978; Pedhazur & Tetenbaum, 1979; Ruch, 1984; Waters, Waters, & Pincus, 1977). Brown (1986) asserted that although the masculinity and femininity scales could be shown to have some link to sex, the dimensions represented might not adequately represent a complete view of the constructs. Greater social awareness of gender roles moved

toward a redefinition of those roles (Levine-Shneidman & Levine, 1985). Cowan and Kinder (1985) illustrated the changes in women's gender roles, stating,

What does femininity mean? The traditional definition connoted passivity, weakness, delicacy, and girlishness. It placed fundamental importance upon appearance and presentation and implied coyness, coquettishness, disguises, games, and strategies. To day, femininity is being redefined simply as the quality of being uniquely female or womanly. Specifically, it refers not only to those qualities one traditionally associates more with women than men--tenderness, sensitivity, and nurturance--but also includes behaviors that tradition links more with men--strength, power, and aggressiveness. In fact, this broadened definition of womanliness is already being embraced by increasing numbers of women. (pp. 226-227)

#### Studies Examining the BSRI

##### Item Selection Replications

Two groups of researchers attempted to replicate Bem's initial item selection with differing results. Edwards and Ashworth (1977) conducted two studies in which male and female subjects were asked to use a 9-point rating scale and rate the social desirability of the 60 items on the BSRI for either an American female or an American male. Four experimenters, two male and two female, obtained volunteer judges from four different settings on the college campus. Their methodology differed from Bem's (1974) in that the judges were not undergraduate students in introductory psychology classes, the rating scale used

by Bem had only seven points, and a one-sided t-test was used in analyzing the data instead of the two-sided t-test used by Bem.

"Masculine" was the only masculine item which achieved significance for both male and female judges although "dominant" was significant for the male judges. Similarly, the only item achieving significance among feminine items for both groups of judges was "feminine." Male judges also attained significance for seven other items. Female judges' ratings were significant in terms of desirability for males for five of the feminine items. None of the neutral items differed significantly for either group of judges. A test of the difference in the scale means was significant only in the rating of feminine items as more desirable for women by male judges. A repeat of the study 1 year later" yielded the same results. In addition to hypothesizing that a change in social views for femininity and masculinity led to differences between their study and the study conducted by Bem (1974), six other explanations were discussed. Lack of power, type I errors, standard deviation response bias, and differential sampling were examined and rejected, but differences in rating scales and differences in methods of data collection were acknowledged as possible contributing factors.

Walkup and Abbott (1978), concerned by the methodological differences and conflicting results of Bem's (1974) and Edwards and Ashworth's (1977) studies, attempted a purer replication of Bem's BSRI item selection. The judges came from educational psychology courses. Both male and female judges rated the masculine items as significantly more desirable overall for a man and the feminine items as significantly more desirable for a woman. Among the individual items male judges did not rate the feminine item "loyal" and the masculine items "willing to take risks" and "individualistic" as significantly more desirable for the respective genders, but the ratings were in the predicted directions. The neutral items of "helpful," "theatrical," "happy," "sincere," and "friendly" were viewed as more desirable for a woman than for a man by both groups of judges. Although the results obtained by Walkup and Abbott essentially supported Bem's item selection, they recommended deletion of "masculine" from the masculine scale and "gullible," "childlike," and "feminine" from the feminine scale. The rationale for the deletion of these items arose from the low ratings in their study and the undesirable ratings in the Edwards and Ashworth study.

A different aspect of question about the validity of Bem's (1974) item selection surfaced in Heerboth and Ramanaiah's (1985) study. The authors questioned the use of a social desirability rating method rather than a stereotype rating method and designed a study which compared the two methods using introductory psychology students and the BSRI. One group of 60 students equally divided between the sexes was asked to rate each BSRI on desirability in a counterbalanced manner for both a man and a woman using a 7-point scale. Desirability was assessed further by placing it on a single 5-point continuum with polar and opposing assignments for the sexes. The other group was asked to complete the task in an identical manner, but based upon stereotype ratings. Data were analyzed with responses grouped according to sex of the target, sex of judge, and type of rating and comparisons made among like variables. Bem's item selection criteria requiring two-thirds endorsement for only one sex by both male and female judges served as the basis for determining an item's suitability for its assigned scale.

Examination of desirability responses demonstrated 8 masculine items and 13 feminine items unable to qualify for the instrument. The masculine items "makes decisions easily," "ambitious," "individualistic," "strong

personality," "analytical," and "defends own beliefs" were not endorsed as more desirable for a man by either male or female judges while "assertive" failed only with male judges and "self-sufficient" failed only with female judges. Both groups of judges rejected the feminine items "loves children," "flatterable," "sensitive to other's needs," "warm," "cheerful," "understanding," and "loyal," but only male judges rejected "gentle," "gullible," "childlike," "compassionate," "does not use harsh language," and "affectionate."

Stereotype ratings resulted in acceptance of only six masculine items and nine feminine items. All eight of the masculine items rejected by the desirability judges were rejected by both groups of stereotype judges. Female stereotype judges also deemed as unacceptable the masculine items "willing to take a stand," "acts as a leader," "competitive," "independent," "has leadership ability," and "self-reliant." The feminine items "understanding," "loyal," and "cheerful," rejected by both male and female desirability judges and "compassionate" and "childlike," rejected by male judges only, were rejected by both male and female stereotype judges. Female stereotype judges also found as unacceptable the feminine items "loves children," "flatterable," and "warm" rejected by both

groups of desirability judges and "gentle" and "warm" rejected by male desirability judges, while male stereotype judges rated "shy" unacceptable. Heerboth and Ramanaiah (1985) concluded that Bem's (1974) failure to compare the desirability ratings for both sexes placed the BSRI's validity in a questionable position. The authors recommended that a comparison of desirability and stereotyping be included in any further revisions of the instrument.

#### Factor Analyses

Gaudreau (1977) conducted one of the earliest factor analyses of the BSRI. Industrial clerks and managers, police officers, and housewives were selected to participate with the latter two groups viewed as traditional in their perception of gender roles. Factor analysis based upon principal-axis and varimax rotation was performed on variables consisting of the 60 BSRI items, femininity score, masculinity score, androgyny score, and respondent's sex. Four factors were discerned. The masculine factor contained all masculine scale items except "masculine," "athletic," and "self-reliant." The feminine factor included six neutral items and all of the feminine items except "feminine," "childlike," "does not use harsh language," "flatterable," "gullible," "shy," and

"soft-spoken." The actual sex factor loaded the respondent's sex, "masculine," "feminine," and "athletic." The neutral maturity factor included "reliable," "self-sufficient," "self-reliant," "sincere," "flatterable," "gullible," "childlike," and "inefficient." Gaudreau (1977) recommended revision of the BSRI to exclude "masculine," "athletic," "self-reliant," "self-sufficient," and "analytical" from the masculine scale and "feminine," "childlike," "shy," "gullible," "soft-spoken," "flatterable," "loyal," and "does not use harsh language" from the feminine scale. "Helpful," "friendly," and "tactful" were suggested as replacements for the feminine adjectives. Gaudreau noted that the study supported the conceptualization of masculinity and femininity as distinct entities rather than bipolar dimensions.

Waters et al. (1977) factor analyzed the BSRI responses of lower division undergraduates and obtained results very similar to those of Gaudreau. Like Gaudreau they recommended deletion of "masculine," "athletic," and "analytical" from the masculine scale, and "childlike," "does not use harsh language," "gullible," "shy," "soft-spoken," and "feminine" from the feminine scale. Waters et al. found that "self-sufficient" and "self-reliant" did load on one of the masculine factors, but "competitive" did



not. Since the two studies disagreed on the items, their retention and further study were advocated.

Students again were used in the factor analysis conducted by Whetton and Swindells (1977) using the same principal axis and Varimax methods as Gaudreau (1977) but performing separate analyses for male and female subjects. Seventeen factors were obtained in each analysis, accounting for 72.5% of the variance in males and 72.4% of the variance in females. The five major factors reported in the study were Empathy, Power, Honesty, Autonomy, and Neuroticism. Empathy encompassed the feminine scale items "sensitive to needs of others," "understanding," "sympathetic," "tender," "warm," "eager to soothe hurt feelings," and "gentle." Factor II, Power, included the masculine scale items "forceful," "assertive," "acts as a leader," "dominant," "has leadership abilities," "aggressive," "strong personality," and "makes decisions easily." The third factor, Honesty, contained one feminine item, "loyal," and three social desirability items, "truthful," "reliable," and "sincere." Autonomy included four masculine items, "independent," "self-sufficient," "self-reliant," and "individualistic" while the fifth factor, Neuroticism, contained one feminine item, "cheerful," and three socially desirable items, "happy,"

"solemn," and "moody." "Happy" and "cheerful" each loaded negatively on Neuroticism for both sexes. Whetton and Swindells concluded that although conceptualization of masculinity and femininity as distinct entities received support from the factor analysis, the presence of 5 primary factors and 17 total factors indicated that the BSRI represented a multidimensional instrument not limited to the feminine, masculine, and social dimensions established by Bem.

A two-part study was conducted by Moreland, Gulanick, Montague, and Harren (1978) extended earlier factor analyses of BSRI responses of undergraduate students by comparing the three BSRI scales to the factor scales obtained in the factor analysis. The first study revealed four factors which closely paralleled the factors identified by Gaudreau (1977) and Waters et al. (1977). The first factor, Emotional Expressiveness, included 11 of the feminine items. "Yielding" and "loyal" were added to the feminine items omitted by Gaudreau. Of the six neutral items included by this factor in the Gaudreau study, "friendly" did not appear in the Moreland et al. analysis. Sixteen masculine items loaded on the second factor, Instrumental Activity. "Self-sufficient" joined the three items omitted in Gaudreau's study. The masculine and

feminine items and the subject's biologic sex composed Sex Items, the third factor. Unlike Gaudreau's findings, "athletic" was not a part of Sex Items. "Gullible" and "childlike" were the only two factors appearing in the fourth factor, Social Immaturity, that appeared in both the Gaudreau and Waters et al. studies. "Reliable" and "jealous" also appeared in the Gaudreau study, but not in the study performed by Waters et al. (1977). No masculine characteristics were included in the fourth factor of Moreland et al., a deviation from the patterns of Gaudreau and Waters et al.

Moreland et al. (1978) then examined the correlation between the individual item responses and the three original BSRI scale scores and that between the individual item responses and four factor scales determined in the first study. Coefficient alpha values also were obtained. Fifteen of the feminine items were found to be correlated most highly with the feminine scale. "Cheerful," "loyal," and "childlike" demonstrated greater correlation with the social desirability scale while "shy" and "feminine" were negatively correlated with the masculine scale. Eleven of the social desirability items correlated with the social desirability scale. "Theatrical," "adaptable," and "tactful" showed a strong relationship with the masculine

scale, and "helpful," "conscientious," "truthful," "sincere," "friendly," and "conventional" correlated to the feminine scale. Masculine items exhibited the greatest consistency with all but "masculine" correlating strongly with the masculine scale. Evaluation of the Emotional Expressiveness and Instrumental Activity factors from the first study yielded strong correlation between the factor and each of its respective items. The authors recommended changing the feminine scale heading to "Emotional Expressiveness" and the masculine scale heading to "Instrumental Activity." Further, they suggested that differential validity studies be conducted on the BSRI and the items included in the factors of their first study.

A major critique of the theoretical bases and developmental methodology of the BSRI appeared in an article written by Pedhazur and Tetenbaum (1979). Several specific concerns were outlined. First, Bem's failure to define masculinity and femininity was viewed as a major threat to the validity of the instrument. Second, the mixture of positive and negative attributes in the feminine scale without inclusion of any negative masculine attributes was considered questionable since individuals generally focus more on positive items in self-report questionnaires. Absence of any factor analysis on the

items prior to publication of the instrument was identified as a third problem. Pedhazur and Tetenbaum noted the tendency of the male attributes to divide into two factors as well as the positive and negative divisions of the feminine and social desirability attributes in the factor analysis included in their study. The three initial concerns were viewed as "sufficient to reject Bem's operational definition of androgyny solely on empirical grounds" (p. 1013). In addition to the reservations about defining a construct operationally without an adequate theoretical definition, the authors questioned using a difference score as the operational definition. Risks involved in the alternate method of median splits prompted Pedhazur and Tetenbaum to conclude that use of the method was "unwarranted in view of the factorial complexity of the scales" (p. 1013).

Pedhazur and Tetenbaum (1979) conducted two studies to support their criticisms. The first used graduate students to evaluate the BSRI's items in terms of desirability for a man, woman, or adult in American society. Means and standard deviations for each item were reported and compared with trait ratings from two other published studies. A stepwise discriminant function analysis of the data demonstrated that the majority of distinction between

masculinity and femininity was accounted for by the two items "masculine" and "feminine." The remaining 58 items contributed little to the discrimination between the two groups. Three separate factor analyses were conducted to examine individually the item responses for a man, woman, and adult. Each analysis yielded three factors. The Interpersonal Sensitivity factor contained 13 feminine traits and 8 socially desirable traits. The Assertiveness or Instrumentality factor included from 17 to 20 of the masculine items, but "masculine" appeared only in the factor for the American man. Immaturity, the third factor, was comprised of two negative feminine attributes and eight negative social desirability attributes.

The second study examined the self-reported BSRI responses of graduate students. The stepwise discriminant function analysis again showed that the items "masculine" and "feminine" accounted for the majority of the distinction between males and females. Factor analysis for the two sexes was performed individually with four factors identified in each. For females factor 1 consisted of 16 masculine attributes and 1 feminine attribute which loaded negatively. Factor 1 was labeled as the Assertiveness factor. The second factor contained 12 feminine traits which reflected Interpersonal Sensitivity. The third

factor was Self-Sufficiency and included 3 positively loading attributes, "self-sufficiency," "self-reliant," and "independent" and 2 negatively loading attributes, "gullible" and "childlike." The final factor was bipolar, comprised of "masculine" and "feminine." The same four factors appeared in the male factor analysis, but greater distinction was made between the Assertiveness and Self-Sufficiency factors.

Bem's (1979) response to Pedhazur and Tetenbaum's (1979) criticisms began with a discussion of the theoretical rationale behind the BSRI and construction of the instrument. Bem developed the idea of consistency in behavior as the problem and not the norm before delineating her assumptions derived from a theory synthesizing cognitive processing and motivational dynamics, ideas encompassed in role theory. The influence of cultural definitions on appropriate behavior for sex-typed individuals was cited as the reason for asking judges to rate the initial items for individuals in American society rather than according to personal identification. She acknowledged the blurring of the original purposes of the instrument which occurred when the recommended scoring procedure was changed to use of the median-split technique.

Addressing the specific criticisms of Pedhazur and Tetenbaum (1979), Bem (1979) referred to her theoretical discussion as a defense against the charge that the instrument was atheoretical. She stressed the definition of the attributes labeled as femininity and masculinity by the culture, noting that the purpose of the BSRI was to differentiate between those who use the categories to determine their behaviors and those who do not. The concern about the use of multiple t-tests in the item selection process was cast aside by noting the acceptance of this procedure in test construction as well as the great improbability that four groups of judges would all accidentally select a specific attribute as more desirable for one sex. She addressed concerns related to the factor analysis and described a short version of the BSRI containing half of the original items. The short BSRI deleted the terms "masculine" and "feminine" along with the feminine items having negative connotations.

Wheless and Dierks-Stewart (1981) included studies by Gaudreau (1977), Moreland et al. (1978), and Pedhazur and Tetenbaum (1979) in their examination of factor analyses conducted on the BSRI which they used as a basis for further examination of the BSRI's psychometric properties. Specifically, in a two-part study they attempted to confirm



the findings of Moreland et al. and then addressed questions about the BSRI's construct validity. In the first study factor analysis using principal components with varimax rotation was applied to the BSRI responses of undergraduate communication students. As in previous studies the authors obtained four primary factors labeled as Sensitivity, Instrumental, Incapable, and Introversion. The Sensitivity factor closely resembled Moreland et al.'s Expressive factor adding "feminine," "loyal," "willing to take risks," "truthful," and "reliable" and deleting "loves children." The Instrumental factors of the two studies again paralleled with Wheelless and Dierks-Stewart including "masculine" and "self-sufficient" and excluding "ambitious," "willing to take risks," and "self-reliant." Wheelless and Dierks-Stewart's Incapable factor incorporated "gullible," "childlike," and "inefficient" from Moreland et al.'s Social Immaturity, but also included the negatively loading "self-reliant," "jealous," and "unsystematic" while omitting "moody" and negatively loading "reliable." Introversion, including "shy," "soft-spoken," "solemn," and "moody," bore no resemblance to Moreland et al.'s Sex factor. Wheelless and Dierks-Stewart concluded that the first two represented definite dimensions of the BSRI, but viewed the latter two as weak and, therefore, questionable.

The second study used a different group of undergraduate students and asked them to use a 7-point scale to rate the desirability of each item on the BSRI's three scales placed in random order. T-tests were used to determine any differences between the responses by males and females and discriminant analysis provided information about the ability of the three scales to distinguish masculine, feminine, and socially desirable behaviors. Results from the t-tests indicated that only "ambitious" failed to achieve significantly higher means for males than for females on the masculine scale and only "flatterable" failed to be significantly more desirable for females than for males on the feminine scale. The authors also noted that the extreme differences for the items "masculine" and "feminine" might indicate automatic responses based solely upon the sex of the individual, a conclusion supported by the factor analyses conducted by Gaudreau (1977), Waters et al. (1977), and Moreland et al. (1978).

Although two functions achieved statistical significance in the discriminant analysis, the first function containing the items "feminine" and "masculine" accounted for 95% of the total variance accounted for by both functions. Wheelless and Dierks-Stewart (1981) subsequently concluded that only the first function could

be considered significant and that the items "feminine" and "masculine" held the primary responsibility for distinguishing between the sexes. Other findings of note included data indicating that all masculine items except "forceful," "dominant," and "masculine" and all feminine items except "feminine" and "soft-spoken" were equally desirable for both sexes and the feminine items "shy," "gullible," and "childlike" were equally undesirable for both sexes. The neutrality of the items "moody," "theatrical," "happy," "unpredictable," "truthful," "secretive," "sincere," "conceited," "friendly," and "inefficient" also was questioned since the results showed them to be significantly more desirable for women than for men. Using this information the authors recommended a revision shortening the BSRI by using only 10 of the more discriminating masculine items on the masculine scale and 7 of the feminine items and 3 neutral items on the feminine scale.

Bernard (1984) used factor analysis in a different manner than earlier researchers as he tried to determine whether combination of the bidimensional factors of currently used sex-role scales and the multidimensional factors of traditional scales adequately evaluated the multidimensional concept of sex role. He used 63 items

appearing in the 5 factors labeled as Aesthetic Interests, Manual and Physical Interests, Hypersensitivity, Timidity and Sentimentality, and Temerity derived from factor analyses of traditional scales and 14 items appearing in 2 factors labeled as Instrumental-Agentive and Expressive-Communal derived from factor analyses of the BSRI and asked 207 introductory psychology students to rate each using a 7-point scale. Separate factor analysis with equimax rotation of the 63 traditional items replicated the 5 earlier factors and established their reliability. Factor analysis of all 77 items using identical criteria supported the identification of 7 factors, but a second analysis was performed after deleting 10 items determined to be weak in the first analysis of all 77 items. The results remained essentially unchanged. Bernard concluded that conceptualization of sex-role identity as bidimensional provided an overly simplistic view of the domain of sex roles. Although he did not recommend deletion of androgyny, he did suggest that researchers move toward multidimensional examination of it.

Several studies in 1984 heralded the movement of factor analysis into the multitrait-multimethod approach. Ramanaiah and Martin (1984) examined the convergent and discriminant validity of three instruments including the

BSRI. Using 239 undergraduate psychology and business students they examined the traits of masculinity, femininity, dominance, nurturance, and order measured by the multipoint, true-false, and adjective checklist formats in a counterbalanced method. Data analysis for males, females, and the entire sample was conducted using Campbell and Fiske's (1959) convergent and discriminant validity criteria and Jackson's (1975) multimethod factor analysis. Similarities in the results for males and females prompted the authors to discuss the results in terms of the total sample. Ramanaiah and Martin concluded that the BSRI and Adjective Checklist (ACL) (Heilbrun, 1976) masculinity and femininity scales demonstrated high convergent and discriminant validity when compared with measures of dominance, nurturance, and order allowing the instruments to be used interchangeably. The Personality Research Form ANDRO scale (PRF ANDRO) (Berzins, Welling, & Wetter, 1978), viewed as an instrument closely related to the BSRI, did not evidence the convergent validity expected.

In a different study on convergent and divergent validity Wilson and Cook (1984) expanded the three sex role instruments used by Ramanaiah and Martin (1984) to include the Personal Attributes Questionnaire (PAQ) (Spence, Helmreich, & Stapp, 1974). Responses of 281 graduate and

undergraduate students for each questionnaire were analyzed without separating the sexes following a multimethod format including determinations of scale internal consistency and convergent and divergent validities. Information obtained from the data analysis prompted the authors to conclude that differences in the scales would make generalizations beyond the parameters established by a specific tool inaccurate. They further noted a tendency for the masculinity and femininity scales "to reflect the old bipolar scale orientation" (p. 834). The factor analysis yielded two primary factors resembling the instrumental and expressive areas previously obtained, but achieved no agreement on subsequent factors. Wilson and Cook cautioned researchers to select the sex-role instrument which most closely reflected the intent specified by the study's hypotheses. The authors echoed the cautions of Lenney (1979) in contending that limitation of sex-role research to the expressive and instrumental domains might overlook equally important aspects of sex-role identification.

Yarnold (1984) followed a different approach by examining the theoretical underpinnings of the psychological androgyny in relation to leadership theory and conflict resolution through a factor analysis of instruments purported to measure each theory. Drawing

parallels of instrumentality between the masculine scale of the BSRI, structure scale of the Fleishman Leadership Opinion Questionnaire (FLOQ) (Pfeiffer, Heslin, & Jones, 1976), and assertiveness scale of the Thomas-Kilmann Conflict Mode Instrument (TKCMI) (Thomas & Kilmann, 1974; Kilmann & Thomas, 1975) and of expressiveness between the BSRI feminine scale score, FLOQ consideration scale, and TKCMI cooperation scale Yarnold used an iterated principal components factor analysis with varimax rotation to analyze the data from 47 undergraduate males. Results showed the instrumental and expressive factors were present, but problems with the feminine scale also were described. Twenty percent of 89% of the first factor's variance accounted for by the three instruments was attributed to the feminine scale. For the second factor 88% of the variance was attributed to the expressiveness scales, but of that 88% only 1% came from the feminine scale. Despite the results the author concluded that synthesis of information from different disciplines could allow broader generalizations of related research results and development of more meaningful theories.

Ruch (1984) replicated the factor analysis performed on self-ratings by Pedhazur and Tetenbaum (1979) and expanded the study to include a smallest space analysis

designed to enumerate the dimensions in the data and clarify their type. The factor analysis yielded results similar to those obtained by Pedhazur and Tetenbaum. The first of the four factors, instrumentality, included six of the masculine attributes in Pedhazur and Tetenbaum's assertiveness factor and added a second negatively loaded feminine attribute. Ruch's expressiveness factor contained 11 of the 12 feminine attributes in Pedhazur and Tetenbaum's interpersonal sensitivity factor. Ruch's femininity-masculinity factor included the "feminine" and "masculine" traits of Pedhazur and Tetenbaum's bipolar factor, but added "athletic" and "competitive." The final factor, autonomy, expanded Pedhazur and Tetenbaum's self-sufficiency factor to include 13 of the masculine attributes. Bem's feminine attributes of "childlike," "yielding," "gullible," "does not use harsh language," and "loves children" and the masculine trait "analytic" failed to appear on any of the factors. Ruch acknowledged the essential replication of Pedhazur and Tetenbaum's findings and agreed that in light of the findings the constructs of masculinity and femininity could not be viewed as unidimensional traits.

Using an approach similar to Yarnold (1985), Adams and Sherer (1985) challenged the idea that androgyny



represented the ideal in terms of psychological adjustment. Hypothesizing that masculine males and females were as well adjusted as their androgynous counterparts and also seeking to establish a definition of masculinity, the researchers followed a multitrait-multimethod research design. Comparisons were made of the responses of 101 introductory psychology students of both sexes for a number of instruments measuring assertiveness, general and social self-efficacy, and sex role orientation individually and globally followed by a factor analysis of the involved scales. The comparisons exceeded expectations of support of the hypothesis that masculine subjects were as well adjusted psychologically as androgynous subjects by demonstrating that they were better adjusted. Explanations offered for the better performance of masculine subjects included "the idea that androgynous individuals might have problems with response conflict rather than flexibility as speculated by Kelly and Worrell (1977) and that femininity interferes with psychological adjustment. Factor analysis of the data delineated two factors labeled Maladjustment and Instrumentality. The BSRI masculinity and femininity scales loaded on the Instrumentality factor, but femininity loaded negatively. Specifics in terms of specific items

were not included since the analysis was performed upon the scale scores.

Ruch (1984) found three dimensions in the smallest space analysis of the BSRI. In the first dimension, feminine-masculine items, a clear separation of the masculine and feminine items was evident. Some separation within the two areas occurred, particularly for those attributes loading negatively or failing to load in the factor analysis. The item evaluation dimension, second of the three, divided the items into positive and negative regions. All of the negative items were a part of the feminine scale, and Ruch viewed this point as supportive of Pedhazur and Tetenbaum's (1979) criticism of the mixing of positive and negative attributes only on the feminine scale. The final dimension addressed the differentiations existing within the masculine and feminine scales. Labeled as the types of feminine and masculine items, each scale was divided into two clusters. Part of the masculine items was considered to be instrumental in nature while the remainder was viewed as personal autonomy and self-sufficiency. The feminine items failed to cluster as tightly as the masculine items, but again two divisions were noted. Nurturant and expressive items appeared in one

area of the dimension while the susceptibility items located in another area.

Ruch concluded that although masculinity and femininity were not unidimensional constructs, they were the primary dimension present in the BSRI. She emphasized the effect of different methodologies on the results obtained in analyses of the BSRI. Ruch also raised the question of whether individuals displayed consistency in their scores on the different subsets within the dimensions.

#### Scoring Methods

Bem (1974) initially recommended that the androgyny score be determined by subtracting the feminine and masculine scale means after they had been converted to Student's  $t$  scores. Her rationale for scoring the BSRI in this manner included the ability to determine whether a person was significantly sex-typed by comparing the masculinity and femininity scale scores and the ability to compare the number of significantly sex-typed individuals appearing in different populations. Strahan (1975) raised several inferential concerns about the use of the Student's  $t$ . He questioned the independence of the observations on the basis of selection of the subjects involved in a study using the instrument and the influences which might affect

the responses obtained from a single individual. The influence of the number of items in the instrument on the Student's  $t$  scores posed another inferential problem. Strahan further questioned the idea of an androgynous person as having equal scores for the masculinity and femininity scales. His fourth concern was the inability to evaluate the mean level differences and rating variabilities separately since they were both a part of the Student's  $t$ .

Strahan (1975) proposed three alternative methods for scoring the BSRI. A simple sum of the means was equated to the androgyny difference score since both were linear combinations. Multiple correlation procedures were suggested for correlating the BSRI to other variables, and a factorial analysis of variance was recommended as an option when the femininity and masculinity scales could be used as independent variables.

Spence, Helmreich, and Stapp (1975) raised further questions about the scoring methods used in the BSRI. Their primary concern was the inclusion of individuals with low scores on both the femininity and masculinity scales with the individuals classified as androgynous. To distinguish between the two groups, Spence et al. recommended the use of a median-split technique. Bem

(1977) applied both the Student's t and median-split techniques to data gathered in a group of validation studies. Although she did not obtain significant differences in the two groups, Bem noted the conceptual difference between the two groups and for that reason recommended use of the median-split technique.

Orlofsky, Aslin, and Ginsburg (1977) proposed yet another scoring method which combined the Student's t method with the median-split method. Basically the Student's t was used to determine an androgyny score and for those falling within the androgyny classification, the median-split was implemented to differentiate between truly androgynous individuals and those who were undifferentiated. Advantages for the "difference/median-split" method were outlined as preservation of the balance of influence of the two scales in determining androgyny and increased resistance to the influence of social desirability on responses.

#### Regression Analysis

Taylor (1984) examined the concurrent validity of the BSRI. Using only those attributes loading in the factor analyses discussed earlier, she developed vignettes to examine the relationships between BSRI classifications and predicted responses to specific situations. In the first

of three sets of regression analyses masculine BSRI responses, feminine BSRI responses, respondent's sex, and interaction of the masculine and feminine BSRI responses served as independent variables. The attempt to demonstrate the significance of the interaction term did not yield significant results. Deletion of the interaction variable in the second set of analyses resulted in significant findings for the sex variable. Use of a hierarchical strategy in the third set of analyses provided significant results regardless of the order of introduction of the variables. The author concluded that although the BSRI appeared to be valid, the influence of the respondent's sex should be recognized.

#### Studies Using the BSRI

Results from studies using the BSRI have varied in terms of their support of the theory of androgyny and the instrument. A number of studies conducted by Bem and associates have been interpreted as supportive of validity, but other researchers have obtained mixed or contradictory results. Bem's studies will be examined first followed by studies conducted by other researchers.

Bem (1975) initiated her validity studies by examining gender role adaptability using undergraduate students in introductory psychology courses. In the first part of the

study she measured a stereotypically masculine attribute, independence from pressure to conform in interpretation of humor, and found that for both males and females, masculine and androgynous subjects conformed on significantly fewer trials. No significant difference existed between the masculine and androgynous subjects of each sex. The second part of the study examined involvement with a kitten, a behavior labeled as stereotypically feminine. Feminine and androgynous males demonstrated significantly greater overall involvement with no difference between the two groups. However, feminine and androgynous females did not show significantly greater involvement with the kitten. In fact, the feminine females interacted with the kitten significantly less than either the androgynous or masculine females. Bem hypothesized that the difference in results for males' and females might be attributed to the use of a kitten.

In an effort to explore the unanticipated results from the kitten study, Bem, Martyna, and Watson (1976) conducted an experiment focusing on the expressive feminine behaviors. In the first part of the study undergraduate subjects were observed interacting with a baby. Their initial analysis yielded no significant differences. Reanalysis of the data using the median-split scoring

method which removed the undifferentiated subjects led to a significant main effect for subjects' sex role for both males and females. The second part of the study examined sympathetic listening behaviors in undergraduate students. For both males and females, masculine subjects were significantly less nurturant than feminine and androgynous subjects with no significant difference appearing between the latter two groups.

Bem and Lenney (1976) explored the avoidance of cross-sex behavior using undergraduate students. In preference of activities appropriate for gender significant main effects for sex of subjects and sex role were obtained. Sex-typed subjects were significantly more stereotyped in activity preferences than androgynous and sex-reversed groups. Analysis of sex role of subject x sex of experimenter approached significance with stronger results occurring with opposite-sex dyads. After the activities, subjects were asked to rate their discomfort during the activities. The overall analysis of variance yielded no significant main effect with those who were sex-typed reporting significantly greater discomfort with cross-sex behaviors than androgynous or sex-reversed subjects. No significant differences were present between



the latter two groups. Interaction of sex role of subjects and sex of the experimenter again was significant.

Andersen and Bem (1981) examined the influence of physical attractiveness on responsiveness in undergraduate introductory psychology students. In males androgynous subjects failed to differentiate between attractive and unattractive targets. Females were inconsistent in their social stereotypes and behaviors. The authors concluded that cultural influences appeared to exert greater power over females.

Bem (1977) identified a number of paper and pencil correlates of androgyny and evaluated the responses of undergraduates on the BSRI and the other instruments. Self-esteem, viewed as favoring males, was measured using the Texas Social Behavior Inventory (Helmreich, Stapp, & Ervin, 1974). In males the measure was found to be correlated to masculinity and not to femininity with androgynous and masculine subjects scoring significantly higher than feminine and undifferentiated males. Females differed from males in that scores were correlated to both the masculine and feminine scales. The Attitudes Toward Women (Spence & Helmreich, 1972) instrument was identified as favoring femininity. In males gender role orientation played a part in liberal attitudes with femininity

positively related and masculinity negatively related. However, in females gender role orientation played no part in liberal attitudes. College women were expected to demonstrate higher scores on the external component of the Internal-External Locus of Control Scale (Rotter, 1966), but no significant differences were obtained for either sex. The Mach IV Scale (Christie & Geis, 1970), measuring identification with Machiavelli's views of human nature, was viewed as biased toward college men. No significant differences were observed for either males or females. The Self-Disclosure Scale (Jourard, 1971), biased toward women, yielded no significant results for either sex. The trend in males was for masculinity to exert a greater influence over disclosure. The final scale, Attitudes Toward Problem-Solving Scale (Carey, 1958), was skewed toward males, but failed to significantly differentiate between the gender roles in either sex. Overall the study provided limited support of the instrument's measurements for men and none for women.

Validation of Bem's (1975) view of androgyny as a positive, healthy state and construct validation of the concept of androgyny were inferred from the results obtained by Hansson, Chernovetz, and Jones (1977) when they investigated development of androgyny in undergraduate

females whose mothers worked outside the home. Androgynous females had a significantly greater number of mothers employed outside the home while feminine women had the least number of working mothers. The results were viewed as supportive of the theory of social learning in gender role development.

The development of androgyny was the focus of Hyde and Phillis (1979) in a study involving participants from 13 to 85 years. Using multiple regression analysis to partial out the effects of the subject's sex, social desirability score, amount of education, and home environment (designated as either urban or rural), the authors attempted in separate analyses to predict feminine, masculine, and androgynous scores from the age of the subject. No significant main effects or interactions were obtained." Categorical scoring of the BSRI using a 2 (sex) x 2 (androgynous/non-androgynous) x 4 (age group) design produced a significant three-way interaction. The trend for development of androgyny differed for the two sexes, increasing with age in men, but decreasing with increasing age in women. Explanations for the opposing trends included an observation of the youthfulness inherent in masculine items and recognition that feminine items

included "traits that men could reasonably develop in middle and old age" (p. 335).

An examination of the influence of culture on responses was conducted by Reed-Sanders, Dodder, and Webster (1985). Three groups of college students were obtained from culturally different universities with one sample containing 493 American students, the second including 283 Mexican-American students, and the last containing 159 Mexican students. Chi-square analysis showed that androgynous subjects were not influenced by sex or culture, but masculine subjects differed according to sex and culture. Among the males the American students were most masculine, with Mexican-American males second, and Mexicans last. Females reversed the positions of American and Mexican-American students. Feminine subjects also showed significant differences according to sex and culture. Feminine females were most common in the American students followed by Mexican-American and Mexican students. Feminine males also appeared most often among American students, but the Mexican-American and Mexican males switched places. Undifferentiated subjects varied according to culture but not sex. Mexican students numbered the greatest for undifferentiated followed by the Americans and Mexican-Americans respectively. The

researchers concluded that the usefulness of the BSRI in the Mexican culture was questionable in view of the significant number of undifferentiated classifications.

Andersen (1978) examined undergraduates with different sex types in terms of their acceptance of self and others and also looked at the relationship between an individual's sex type and sexist attitudes. The Berger Self-Acceptance Scale (Berger, 1952) and the "Macho" Scale (Villemez & Touhey, unpublished) were administered to the participants along with the BSRI. A 3 (sex type) x 2 (acceptance) analysis of variance with repeated measures confirmed the presence of significant differences in acceptance of self and other among sex-typed subjects. Post hoc analysis with t-tests for repeated measures showed that masculine males were significantly more accepting of self than others while feminine males were significantly more accepting of others than self. Female subjects demonstrated no significant differences for either sex type. Hypotheses that the highest self-acceptance would be found in androgynous individuals and the least self-acceptance would be found in sex-reversed individuals, that the least amount of acceptance of others would be shown by masculine individuals, and that masculine males would discriminate most against women and masculine females would discriminate

least were confirmed. Andersen concluded that the BSRI distinguished gender types among males more clearly than those for females. She also noted that research was needed "to investigate developmental antecedents of the androgynous personality" (p. 415).

Andersen worked with Bem (1981) and studied the interrelationships between physical attractiveness, sex, and sex typing using undergraduate introductory psychology students as perceivers and targets. Perceivers were equally divided between the sexes and between sex typing and androgyny. Dyads consisting of one target and one perceiver were placed in adjacent rooms where they conversed through microphones and headphones. The conversation was recorded. Each member of the dyad received brief biographical information about their partner prior to the conversation, and the perceiver was shown one of a group of photographs taken of individuals not participating in the study and previously judged to be either attractive or unattractive. Immediately after the conversation both members of the dyad completed the Multiple Affect Adjective Checklist (Zuckerman & Lubin, 1965) and used a 10-point scale to answer several questions about their partner. The target then switched places with the target of another dyad, and the process was repeated.

Another group of undergraduates served as independent judges and rated the conversation of either the targets or perceivers for 34 bipolar personality dimensions and 17 impressionistic questions about the conversations.

Mixed results were obtained. As anticipated, the attractiveness of the target positively influenced the response of sex-typed perceivers while androgynous perceivers did not differentiate on the basis of attractiveness. Marginally significant support was obtained for the hypothesis that physical attractiveness would positively influence the responsiveness of sex-typed perceivers. Androgynous men and women were inconsistent in their responses to the attractiveness of targets. As expected, androgynous men made no distinction, but androgynous women preferred unattractive targets. The authors suggested that the difference in preferences of androgynous men and women might reflect the fact that "androgyny may not always have the same implications for men and women" (p. 84). Sex rather than sex type was found also to define overall social responsiveness. Despite the variations in androgynous subjects, Andersen and Bem pointed out that sex-typed individuals in all previous studies displayed highly consistent behavior in the context of social norms. The statement overlooked feminine

females' lack of interaction with the kitten in Bem's (1975) initial validity study.

The influence of sex-role identification on psychological and physiological responses to abortion was examined by Alter (1984) with mixed results obtained. Subjects consisted of 120 predominantly white women between the ages of 15 and 42 undergoing a first trimester abortion. Each subject completed the BSRI four times describing herself, her "ideal self," a typical homemaker, and a career woman. Scores were obtained for overall self-esteem, self-esteem masculine, self-esteem feminine, self-homemaker congruence (SHMC), self-career congruence (SCRC), and role differentiation or career-homemaker congruence (CRHMC). Hypotheses relating positive abortion outcome to androgyny and high masculinity scores were supported. Fewer physiological and psychological problems were reported following the abortion for these groups. A relationship between high femininity scores and a negative abortion outcome was not supported. The hypothesis predicting a more negative abortion outcome for women with self-homemaker congruence than women with self-career woman congruence was partially supported. Women with self-career woman congruence demonstrated positive abortion outcomes regardless of whether they differentiated between the two



roles. Abortion outcome was negative for self-homemaker women only if they differentiated between the two roles. The final hypothesis relating positive abortion outcome with high self-esteem scores or congruence between self and ideal-self scores was supported strongly when masculine scale scores were used, but achieved only weak support from the feminine scale scores.

Alter (1984) concluded that the presence or absence of masculine characteristics determined abortion outcome in women with feminine scores contributing little. He added, "thus, although the BSRI was theoretically designed to remedy the problem of Femininity's being defined as lack of Masculinity, whether or not it has succeeded is highly questionable" (p. 231).

Two studies were conducted using postpartum women. Lenz, Soeken, Rankin, and Fischman (1985) looked at the relationship of sex-role identification, gender, and perceptions about the marital relationship of postpartal couples. In addition to the BSRI, the authors used the Relationship Change Scale (RCS) (Guerney, 1977) to measure overall marital relationship change, the Intimate Relationship Scale (IRS) (Fischman, Rankin, Soeken, & Lenz, 1986) to measure marital intimacy change, and Spanier's (1976) Dyadic Adjustment Scale (DAS) to measure marital

quality. A positive relationship between perception of change in overall marital relationship and marital intimacy and perception of marital quality in the fourth postpartum month was found.

Inconsistent results were obtained when the influence of gender and sex role attributes on overall marital change and quality in the postpartum period was examined. Correlational analysis revealed that androgyny was positively related to quality. Gender and masculinity were not related to either. A hierarchical multiple regression analysis reversed the findings for androgyny when the variance attributed to femininity and masculinity were removed and showed that femininity was related to change as well as quality. Attempts to relate gender and sex-role attributes to marital intimacy were unsuccessful. Lenz et al. noted the presence of "growing evidence that the concept of androgyny may have less value as a predictor than originally asserted and that future theoretical and empirical attention should be focused on the attributes of masculinity and femininity" (p. 59).

The second study, a longitudinal examination of new mothers, measured women during their third trimester of pregnancy, the immediate postpartum period, and the fifth or sixth week postpartum (Brouse, 1985). Relationships

between gender role identity, feminine and self-concept scores, and perception of comfort with the mothering role were examined. Both primiparous and multiparous women participating in childbirth education classes were included in the sample.

Attempts to relate a greater increase in feminine and self-concept scores to parity for the three time periods failed to achieve significance although the pattern for both scores was higher in primiparas as hypothesized. The hypothesis that feminine and androgynous women would demonstrate a greater increase in their feminine and self-concept scores was not supported with results approaching significance instead for masculine and undifferentiated women. The relationship of feminine scores to self-esteem scores at the time of each measurement was supported, but only those of masculine women reached significance for all three times. Androgynous and undifferentiated women attained significance in the first and third measurements, but feminine women's scores were not related in any of the three periods. The final hypothesis examined the relationship between self-concept scores and comfort with the maternal role at the final measurement period. Results did not achieve significance and were in the opposite direction of that hypothesized. Brouse concluded that the

results indicated that women with low-feminine scores might have had greater potential for growth in a situation when feminine traits were desirable than women who had already obtained personal satisfaction in their femininity.

An attempt to show a relationship between sex-role identity and perception of personal control in undergraduate psychology students yielded mixed results. Androgynous and masculine males were found to be more internal in their locus of control, but in women the same results were obtained for feminine and androgynous groups, opposite the hypothesized relationship. Although Johnson and Black (1981) speculated that the difference in the power styles of women and men might account for the contradictory results, the study seems inconsistent with the view of sex-typed individuals as highly structured in their perception of role.

#### Summary

The review of the literature began with a discussion of the relationship between validity and construct definitions. A perspective of gender role evolution was then presented and construct definitions outlined as they related to the BSRI. A discussion of the studies examining the BSRI delineated problem areas including concerns in the scoring of the instrument, theoretical inconsistencies, and

evidence of multidimensional aspects of femininity and masculinity despite their representation as unidimensional constructs. Chapter II concluded with presentation of studies performed by Bem and other researchers using the BSRI and obtaining supportive, conflicting, or mixed results.

### CHAPTER III

#### PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

A descriptive interaction comparisons design was selected for the study. According to Shelley (1984), descriptive studies were conducted when independent variables were not manipulated. Similar to the factorial experimental design, the interaction comparisons design included more than one independent variable. Groups encompassed by the design were intact with comparisons made within and between groups. Kerlinger (1973) limited the inferences made in descriptive research to the possession of attributes, values, or beliefs by members of the same population studied. Causal inferences made from experimental studies were considered inappropriate. In the study comparisons were made between and within intact groups, and inferences were limited to their possession of beliefs and attributes.

#### Setting

The study was conducted in a small city in the southeastern region of the United States. Volunteers from women attending the second day of a large 2-day women's health issues conference were obtained after giving a brief

verbal explanation of the study during the morning session. Participants were provided with a packet of materials including a written explanation of the study and consent process, a vignette situation, and copies of three versions of the BSRI with separate directions which were completed by the subjects at home. Subjects were asked to return the questionnaires anonymously by mail in a self-addressed stamped envelope provided by the researcher.

#### Population and Sample

The target population for the study consisted of women with diverse ages, educational and ethnic backgrounds, employment statuses, marital statuses, and parental roles. Subjects included in the sample were required to be over the age of 18, able to read and write English, and willing to participate. Return of the completed questionnaires was interpreted as willingness to participate in the study.

#### Protection of Human Subjects

The study qualified for exemption from formal review by the Human Subjects Review Committee at Texas Woman's University according to the criteria in the Human Subjects Program Guidelines (Texas Woman's University, 1983). Data about the participants were collected and reported in a manner which prevented identification of any specific

individuals with the information provided. Protection of the welfare and rights of the subjects included:

1. Provision of information in the verbal and written explanations (Appendix A) of the study about the voluntary nature of participation and the right to withdraw at any time.

2. Assurance of anonymity through use of only codes for identification of questionnaires. Only the participant knew her code number which was randomly assigned to the questionnaire packet.

3. Inclusion of the expectations and time requirements in the written explanation provided to the participants.

4. Provision of a means for contacting the researcher or committee chairman if subjects had any questions about the study.

#### Instruments

Instruments for the study included a background information sheet, the Bem Sex Role Inventory, and two vignettes developed for the study (Appendix A). Written permission for use of the BSRI in the original and adapted versions was obtained from Pamela Griffen on September 8, 1987 (Appendix B).



### Background Information Sheet

A background information sheet was used to obtain personal information about the age, ethnic background, marital status, number of children, highest educational level, occupation, and current employment status of the participants. The information was used to determine the heterogeneity of the sample.

### Ben Sex Role Inventory

The BSRI is a 60-item questionnaire answered using a 7-point Likert scale. Responses may range from 1 (never or almost never true) to 7 (always or almost always true). The instrument is divided into 3 scales of 20 items each. The masculinity and femininity scales consist of stereotypical attributes associated with the respective sexes. The social desirability scale contains 20 attributes viewed as descriptive of either sex and classified as filler items (Bem, 1981).

### Reliability

Bem (1974) conducted a test-retest reliability study using 28 undergraduate students from both gender groups. Reliability values for the administrations of the instrument, separated by 4 weeks, were reported as masculinity .90, femininity .90, androgyny .93, and social

desirability .89. The androgynous value in the study reflected both androgynous and undifferentiated individuals. Internal consistency coefficient alpha values were calculated for two groups of undergraduate students ( $n = 723$  and  $194$ ) with respective values for masculinity .86 and .86, femininity .80 and .82, androgyny .85 and .86, and social desirability .75 and .70 (Bem, 1974).

#### Validity

Comparisons of two groups of undergraduate students (males = 444 and 117; females = 279 and 77) demonstrated significantly higher scores on the masculinity scale by males (mean = 4.97 and 4.96) than females (mean = 4.57 and 4.55) and on the femininity scale by females (mean = 5.01 and 5.08) than males (mean = 4.44 and 4.62). Alpha was less than .001 for all comparisons (Bem, 1974).

Correlation coefficients of the BSRI masculinity, femininity, and androgyny scales were respectively .11, .04, and .04 for men and .15, -.06, and -.06 for women for the masculinity-femininity scale of the Guilford-Zimmerman Temperament Survey; and -.42, .27, and .50 for men and -.25, .25, and .30 for women for the masculinity-femininity scale of the California Psychological Inventory (Bem, 1974). Correlation coefficients for the masculinity scale were .75 for males and .73 for females, and for the

femininity scale were .57 for males and .59 for females when the BSRI was compared to the Personal Attributes Questionnaire (Spence & Helmreich, 1978).

### Vignettes

A group of six vignettes, three for a home setting and three for a work setting, were generated for the study.

Criteria used in developing the vignettes included:

1. Construction of a situation with the potential for resolution in either a structured or symbolic interactionist manner.
2. Display of no obvious bias toward one gender role perspective or the other.
3. Provision of no indication of a preferred solution.

Content validity was obtained using a panel of experts who evaluated the vignettes using the outlined criteria and rated each group of vignettes in order of preference. One vignette from each group was selected based upon the panel's recommendations.

### Data Collection

A convenience sampling method was employed to obtain 263 women interested in participating in the study. A verbal explanation of the purpose and request for

participants was made during the second day of activities at a large women's health issues conference. Interested women then were given a packet containing the written explanation of the study, personal information sheet, and three BSRI questionnaires with directions. One BSRI had the original directions and instructed the women to describe themselves. A second BSRI instructed the participant to complete the instrument in terms of each attribute's benefit to men or women in American society. The other BSRI instructed the participant to rate the attributes in terms of benefit to the man or woman described in the vignette at the top of the page of directions. The word "true" in the scale anchors was changed to "beneficial" in the latter two versions of the BSRI, but the order of the items remained unaltered. Each participant was asked to respond regarding the same sex for the American society and vignette questionnaires, but the assignment of sex to each packet, the vignette situation setting, and the order of the three BSRI instruments in the packets were varied and distributed in a random manner. Participants were instructed to complete the instruments at home in the order in which they appeared in the packet and return them by mail using the self-addressed, stamped envelope supplied to them. A card for recording name and

address was provided in each packet for participants desiring a copy of the final report of the study. Cards returned with the packets were removed and placed in a locked file before removal of the questionnaires from the envelope. Subjects were contacted only during the conference. Return of their completed questionnaires was viewed as consent to participate.

#### Pilot Study

A pilot study was conducted to establish the feasibility of the research methodology for the stated problem. Forty incoming female freshman nursing students volunteered to participate and were given the questionnaire packets during an orientation class. They were asked to complete the instruments and return them to the department's secretary the following day before class. Participation was anonymous with code numbers randomly assigned to the packets and students informed that they could withdraw from the study at any time by notifying the researcher of their code number and wish to withdraw. Twenty-three students qualified for the study by returning completed questionnaires resulting in a return rate of 57.5%.

Responses to the Personal Information form showed that participants in the pilot study typically were between the

ages of 18 and 37, Caucasian, either single or married without children, Baptist, high-school graduates, and employed on a part-time basis. Classification of the participant's personal BSRI responses using the median-split method resulted in 7 masculine, 4 feminine, 6 androgynous, and 6 undifferentiated students. Table 1 provides the group sizes and mean scores for the masculine

Table 1

Group Sizes, Means, and Standard Deviations of Pilot Questionnaire Masculine and Feminine Scale Scores Based on Personal BSRI Classifications

BSRI Classification	n	Masculine		Feminine	
		Mean	SD	Mean	SD
Personal					
Androgynous	6	105.5	10.21	113.8	5.42
Feminine	4	89.0	2.94	118.3	6.13
Masculine	7	107.7	8.20	100.3	5.99
Undifferentiated	6	87.5	5.96	102.0	6.42
Total	23	98.9	11.88	107.8	9.37
American Society					
Male					
Androgynous	4	118.0	17.15	109.5	5.45
Feminine	1	114.0	0.0	75.0	0.0
Masculine	2	111.0	5.66	98.5	6.36
Undifferentiated	3	113.7	5.77	95.0	2.00
Total	10	114.9	10.83	99.5	11.55
Female					
Androgynous	2	118.5	7.78	107.5	6.36
Feminine	3	114.3	7.57	104.3	5.03

(table continues)

<u>BSRI</u> Classification	<u>n</u>	<u>Masculine</u>		<u>Feminine</u>	
		Mean	<u>SD</u>	Mean	<u>SD</u>
Masculine	5	112.0	12.71	97.2	6.53
Undifferentiated	3	100.7	12.06	88.7	12.74
Total	13	110.9	11.49	98.5	9.79
Vignette					
Woman-Home					
Androgynous	1	93.0	0.0	98.0	0.0
Feminine	0	0.0	0.0	0.0	0.0
Masculine	4	98.0	7.16	97.3	3.59
Undifferentiated	2	70.5	13.44	102.0	4.24
Total	7	89.4	15.04	98.7	4.07
Vignette					
Woman-Work					
Androgynous	1	131.0	0.0	100.0	0.0
Feminine	3	107.3	5.13	96.0	10.44
Masculine	1	127.0	0.0	66.0	0.0
Undifferentiated	1	41.0	0.0	23.0	0.0
Total	6	103.5	32.59	79.5	31.08
Man-Home					
Androgynous	3	117.0	15.10	99.0	3.61
Feminine	0	0.0	0.0	0.0	0.0
Masculine	2	101.5	.71	93.5	13.44
Undifferentiated	0	0.0	0.0	0.0	0.0
Total	5	110.8	13.65	96.8	7.79
Man-Work					
Androgynous	1	118.0	0.0	82.0	0.0
Feminine	1	71.0	0.0	122.0	0.0
Masculine	0	0.0	0.0	0.0	0.0
Undifferentiated	3	109.7	19.04	78.7	6.66
Total	5	103.6	22.94	94.4	22.23

and feminine scales in relation to classification on the personal version of the BSRI. Multiple stepwise regression was performed for each subscale to determine the possible

impact of the demographic variables. As Table 2 indicates, educational level entered on the feminine scale of the personal questionnaire and accounted for 34% of the variance. The number of female children loaded positively and religious preference loaded negatively on the feminine scale scores to identify possible influence of previous responses on subsequent questionnaires' responses. The MANOVA results, summarized in Table 3, were nonsignificant and further tests to determine specific interactions were not conducted.

Insignificant or invalid results were obtained from analysis of the scale scores using MANOVA and chi-square. Difficulties encountered in the analysis from the small cell sizes emphasized the need to use a larger sample in the main study. One change prompted by questions and comments from the pilot study related to the American society questionnaire. Participants were confused about whether to describe men or women in general or in terms of a specific person within American society. Since the intent of that version of the questionnaire was to determine the participant's perception of society in general, the directions were altered from description of "a man" or "a woman" to "men" or "women" in American society. Other comments pertained to the length of the BSRI and



Table 2

Summary of Multiple Regression Results for Impact of Personal Characteristic Variables on Pilot Questionnaires' Scales

Scale	Step	Multiple R	R-Square	Adjusted R-Square	F (Equation)	Significance of F
Personal						
Feminine						
Educational level	1	.5826	.3394	.3080	10.791	.004
Vignette						
Feminine						
Number of girls	1	.4652	.2164	.1791	5.799	.025
Religious preference	2	.7615	.5800	.5379	13.807	.000

Scale	Step	R-Square Change	F Change	Significance of Change	Beta	Correlation
Personal Feminine Educational level	1	.3394	10.791	.004	.5826	.5826
Vignette Feminine Number of girls	1	.2164	5.799	.025	.4652	.4652
Religious preference	2	.3635	17.310	.000	-.6275	-.4505

Table 3

Summary of MANOVA Results of Impact on Masculine and Feminine Scale Scores by Pilot Questionnaire Order in Packet

Order in Packet	Wilks Lambda	Approximate F	Hypothetical DF	Error DF	Significance of F
First	.0461	1.4404	36	51.07	.114
Second	.0389	1.5528	36	51.07	.073
Third	.0804	1.1002	36	51.07	.372

repetitive nature of the three versions of the questionnaire, but no alterations were feasible in light of the need to preserve as nearly as possible the original format of the instrument for each versions.

#### Trestment of Data

A number of procedures in the SPSS-X statistical computer package were used in analysis of the data. Multiple stepwise regression was used to determine if any of the demographic characteristics influenced responses on each of the questionnaires' scales. Research in nursing and other areas often involves situations in which intercorrelated extraneous variables may influence the results. In such situations, Volicer (1984) recommends using multiple stepwise regression to determine the order and degree to which the variables are predictive of the results.

Multiple analysis of variance (MANOVA) was used to evaluate the effect of the order of appearance of the questionnaires in the packets. Using the masculine and feminine scale scores as dependent variables, a MANOVA was performed on the seven questionnaires for each order of placement. The MANOVA was selected over the multiple analyses of variance (ANOVA) to allow testing of both

dependent variables simultaneously and to decrease the potential for Type I errors (Tabachnick & Fidell, 1983).

Gender classifications for the subjects were determined using the median-split method recommended by Bem (1977). According to Bem's median-split method, women achieving high scores on both the masculine and feminine scales of the BSRI when describing themselves were classified as androgynous while women with low scores on both scales were considered undifferentiated. Feminine women had high feminine scores and low masculine scores, and masculine women had low feminine and high masculine scores. The median-split method allowed differentiation of androgynous and undifferentiated subjects.

Following classification of personal gender responses to the original BSRI, a factorial multiple analysis of variance (MANOVA) was performed. Huck, Cormier, and Bounds (1974) included the presence of two or more criterion measures, a greater number of dependent variables than measurement groups, and a sample size of at least twice the number of variables as requirements for use of the MANOVA. The study met all of the requirements. The subject's personal gender type (PGT) served as the independent variable. Dependent variables included the masculine and feminine scale mean scores based on the sex in the vignette

(SV), sex in American society responses (SAS), and vignette setting (VS), and personal description (PD). Huck et al. also noted the necessity of a follow-up test whenever significant MANOVA results were obtained. In situations where MANOVA yielded a significant  $F$  multiple discriminant functions analysis providing canonical correlations was planned to determine the dimensions of reliable difference and strength of the association (Tabachnick & Fidell, 1983).

#### Summary

A descriptive interactions comparative design was outlined for the study. Use of intact groups without manipulation of the independent variable to make comparisons between and within the groups satisfied the requirement for the design. Limitation of the inferences to possession of beliefs and attitudes by the population studied was acknowledged as necessary with the described design. The setting and population and sample were described and measures to protect human subjects were outlined.

Instruments for the study included a personal information sheet, three versions of the BSRI, and two vignettes. Each was described with reliability and validity information provided. The data collection method

was detailed. Changes occurring as a result of the pilot study were described following a discussion of the pilot. Planned data analysis methodology was outlined.

## CHAPTER IV

### ANALYSIS OF DATA

A descriptive interactions comparisons study was designed to determine whether the BSRI accurately and consistently determines sex role orientation in women. The analysis and interpretation of data collected by responses to the instrument with three different sets of instructions is presented in this chapter.

#### Description of Sample

A total of 93 women returned the questionnaires. Two of the returned questionnaires contained incomplete responses and were deleted from the study. The remaining 91 respondents represented 34% of the 263 individuals receiving packets. The subjects first will be discussed as a whole and then according to their BSRI personal classification groups.

#### Overall Sample

The typical subject was between 28 and 37 years of age, Caucasian, married with two children (either two sons or one son and one daughter), Baptist, and employed full-time. She had at least completed high school and often had some college work if not a baccalaureate degree.



Common occupational areas were divided between health care, education, clerical, and business and professional concentrations. Classification of the participant's personal BSRI responses using the median-split method yielded 25 androgynous, 24 feminine, 21 masculine, and 21 undifferentiated subjects. Table 4 presents the frequencies and percentages of the personal characteristics for the entire sample and the BSRI personal classification groups.

Multiple regression performed on the personal characteristics of the overall sample and the scale scores for all of the questionnaires yielded identification of factors for three of the scales. Employment status and educational level were found to be predictive of personal masculine scores, collectively accounting for 12% of the variance. Five percent of the variance in feminine scores on the personal questionnaire could be predicted by religious preference. On the questionnaire describing women or men in American society, 6% of the variance could be attributed to employment status for the feminine scale scores. Table 5 summarizes the results of the multiple regression for each scale.

The impact of the order in which the questionnaires were completed on the scale scores was analyzed by MANOVA.

Table 4

Frequencies and Percentages for Personal Characteristics for the Sample and the BSRI Personal Classification Groups

Personal Characteristic	Sample n = 93		Androgynous n = 25		Feminine n = 24		Masculine n = 21		Undifferentiated n = 21	
	N	%	N	%	N	%	N	%	N	%
<b>Age</b>										
18 - 27	4	4	0	0	2	8	1	5	1	5
28 - 37	36	40	9	36	6	25	11	52	10	48
38 - 47	24	26	7	28	11	46	4	19	2	10
48 - 57	17	19	5	20	3	13	3	14	6	29
58 - 67	10	11	4	16	2	8	2	10	2	10
<b>Marital status</b>										
Single	3	3	1	4	2	8	0	0	0	0
Married	71	78	17	68	19	79	16	76	18	86
Divorced	11	11	3	12	3	13	4	19	1	5
Widowed	6	7	4	16	0	0	1	5	1	5
Separated	1	1	0	0	0	0	0	0	1	5

Personal Characteristic	Sample n = 91		Androgynous n = 25		Feminine n = 24		Masculine n = 21		Undifferentiated n = 21	
	N	%	N	%	N	%	N	%	N	%
<b>Ethnic Group</b>										
Caucasian	84	92	22	88	21	88	20	95	21	100
Black	2	2	0	0	1	4	1	5	0	0
Oriental	1	1	1	4	0	0	0	0	0	0
None given	4	4	2	8	2	8	0	0	0	0
<b>Educational level</b>										
Middle school	1	1	0	0	0	0	0	0	1	5
High school	20	22	3	12	10	42	4	19	3	14
Vocational school	4	4	1	4	0	0	1	5	2	10
College - no degree	19	21	8	32	4	17	4	19	3	14
Associate degree	8	9	2	8	2	8	0	0	4	19
Bachelor's degree	22	24	6	24	6	25	5	24	5	24
Master's degree	17	19	5	20	2	8	7	33	3	14

Personal Characteristic		Sample n = 91		Androgynous n = 25		Feminine n = 24		Masculine n = 21		Undifferentiated n = 21	
		N	%	N	%	N	%	N	%	N	%
<b>Children</b>											
<b>Girls/Boys</b>											
0	0	10	11	3	11	3	13	4	20	0	0
0	1	5	6	2	7	0	0	2	10	1	5
0	2	17	19	5	19	4	17	2	10	6	29
0	3	1	1	1	4	0	0	0	0	0	0
1	0	8	9	2	7	3	13	1	5	2	10
1	1	20	22	5	19	9	39	3	15	3	14
1	2	6	7	1	4	0	0	1	5	4	19
1	3	1	1	1	4	0	0	0	0	0	0
2	0	7	8	3	11	0	0	3	15	1	5
2	1	8	9	0	0	3	13	3	15	2	10
2	2	1	1	1	4	0	0	0	0	0	0
2	3	1	1	0	0	0	0	0	0	1	5
3	0	2	2	0	0	1	4	0	0	1	5
3	1	3	3	2	7	0	0	1	5	0	0
3	3	1	1	1	4	0	0	0	0	0	0

Personal Characteristic	Sample n = 91		Androgynous n = 25		Feminine n = 24		Masculine n = 21		Undifferentiated n = 21	
	N	%	N	%	N	%	N	%	N	%
<b>Religious preference</b>										
Baptist	36	40	11	44	13	54	5	24	7	33
Catholic	11	12	4	16	2	8	4	19	1	5
Christian	7	8	5	20	1	4	0	0	1	5
Church of Christ	3	3	1	4	1	4	1	5	0	0
Methodist	14	15	2	8	2	8	2	10	8	38
Lutheran	1	1	0	0	1	4	0	0	0	0
Presbyterian	1	1	0	0	1	4	0	0	0	0
Protestant	10	11	2	8	1	4	4	19	3	14
Cumberland Presbyterian	1	1	0	0	0	0	1	5	0	0
Nondenominational	2	2	0	0	1	4	1	5	0	0
None	5	6	0	0	1	4	3	14	1	5

Personal Characteristic	Sample n = 91		Androgynous n = 25		Feminine n = 24		Masculine n = 21		Undifferentiated n = 21	
	N	%	N	%	N	%	N	%	N	%
<b>Occupation</b>										
None	14	15	4	16	3	13	4	19	3	14
Health care	22	24	6	24	4	17	5	23	7	33
Education	16	17	6	24	4	17	4	19	2	10
Clerical	16	17	5	20	7	29	1	5	3	14
Business/ Professional	13	13	4	16	2	8	4	19	3	14
Factory work	1	1	0	0	0	0	0	0	1	5
Service	9	10	0	0	4	17	3	14	2	10
<b>Employment status</b>										
Not working	19	21	5	20	5	21	4	19	5	24
Part-time	6	7	0	0	2	8	1	5	3	14
Full-time	61	67	18	72	16	67	15	71	12	57
Retired	5	6	2	8	1	4	1	5	1	5

Table 5

Summary of Multiple Regression Results for Impact of Personal Characteristic Variables on Questionnaires' Scales

Scale	Step	Multiple R	R- Square	Adjusted R-Square	F Equation	Significance of F
Personal Masculine Employment status	1	.2639	.0696	.0592	6.662	.011
Educational level	2	.3475	.1208	.1008	6.043	.003
Feminine Religious preference	1	.2253	.0508	.0401	4.761	.032
American Society Feminine Employment status	1	.2419	.0585	.0480	5.534	.021

Scale	Step	R- Change	F Change	Significance of Change	Beta	Correlation
Personal						
Masculine						
Employment status	1	.0696	6.662	.011	.2639	.2639
Educational level	2	.0511	5.116	.026	.2265	.2412
Feminine						
Religious preference	1	.0508	4.761	.032	-.2253	-.2253
American Society						
Feminine						
Employment status	1	.0585	5.534	.021	.2419	.2419



As Table 6 shows, the second position masculine scale score for each questionnaire was influenced by its position. A discriminant function analysis subsequently was performed, and the results are reported in Table 7. The correlation between the order of appearance in the packet and the masculine scale score for the American Society questionnaire was positive, but the correlations between the remaining masculine scale scores and the second position were negative. The squared standardized discriminant function coefficients for the personal masculine scale (.5939), American society scale (.5637), and vignette scale (.7558) demonstrate that the second position accounted for a considerable amount of the variance in the respective scores. The opposite was true of the squared standardized discriminant coefficients for the feminine scale scores which were .0200 for the personal feminine scale, .0001 for the American society feminine scale, and .0000 for the vignette feminine scale. The second position in the questionnaire packets exerted very little influence on the feminine scales.

#### Androgynous Group

The androgynous subject paralleled the typical study participant in terms of age, ethnic background, marital

Table 6

Summary of Multiple Analyses of Variance of Feminine and Masculine Scale Scores of All Questionnaires Based upon Order of Questionnaires in Packet

Order	Wilks Lambda	Approximate F	Hypothetical DF	Error DF	Significance of F
1	.60567	1.17491	36.00	349.67	.232
2	.45552	1.90471	36.00	349.67	.002
3	.58031	1.28146	36.00	349.67	.135

status, number of children, religious preference, occupation, and employment status. None were employed in

Table 7

Summary of Standardized Discriminant Function Coefficients  
for Masculine and Feminine Scales of All Questionnaires  
Appearing in Second Position of the Packets

Scale	R-Function 1	R-Square
Personal		
Masculine	-.77066	.5939
Feminine	.14126	.0200
American Society		
Masculine	.75083	.5637
Feminine	.01017	.0001
Vignette		
Masculine	-.86938	.7558
Feminine	.00212	.0000

service or factory positions. The androgynous group differed in that their educational level was above high school with the greatest number having college credit if not a baccalaureate or master's degree.

Feminine Group

Feminine subjects tended to be older with the range from 38 to 47 years accounting for almost half of the women

in this group. Like the androgynous participants, most were Caucasian, married with two children, and Baptist. Two-thirds worked full-time, and clerical occupations were the most common with health care, education, and service options following. Feminine subjects were predominantly high school graduates, although one-fourth had bachelor's degrees.

#### Masculine Group

Like the androgynous subjects, the majority of masculine participants followed the overall pattern in age, marital status, ethnic group, religious preference, employment status and career choices. Several listed no preference in terms of religion. The group departed from the typical study participant in the number of children since most had not started families. The masculine group was the best educated of all groups with one-third of the participants in this group educated at the master's level, accounting for the largest number with that degree. Another 25% had baccalaureate degrees.

#### Undifferentiated Group

Undifferentiated subjects were similar to the other groups in age, marital status, number of children, ethnic background, and employment status, but several differences

were notable. The Baptist religious preference was second to that for Methodist, and the largest number of women from 48 to 57 years in age appeared in the group. Associate degree education and employment in health care occupations were most common, and the group accounted for half of all individuals with associate degrees.

### Findings

Each of the hypotheses was tested individually using the multiple analysis of variance. The results of each statistical analysis are reported in the following sections.

#### Hypothesis 1

The first hypothesis focused on the feminine group and stated: Women classified as feminine on the BSRI will not vary their selection of gender-appropriate attributes for individuals in general and in specific situations. The analysis of the hypothesis using MANOVA did not yield significant results ( $F(18,42.91) = 1.30322$ ,  $p = .234$ ) for the feminine groups indicating that no significant differences existed in the selection of attributes on the basis of the sex of the individual or situation involved. The null hypothesis was accepted. Table 8 provides the means, standard deviations, and sample sizes for the

Table 8

Feminine Group Summary Data for the Masculine and Feminine Questionnaire Scales of the  
Sex/Vignette Combinations

Questionnaire	Personal		American Society		Vignette	
	Masculine	Feminine	Masculine	Feminine	Masculine	Feminine
Woman/Home (n = 4)						
Mean	84.50	108.50	91.50	85.00	90.00	85.75
Standard Deviation	9.04	5.26	17.82	32.26	29.17	28.02
Woman/Work (n = 4)						
Mean	84.75	105.50	96.75	94.50	113.00	91.75
Standard Deviation	7.89	4.20	14.32	11.12	14.38	15.88
Man/Home (n = 11)						
Mean	72.18	107.18	103.55	93.18	95.09	90.18
Standard Deviation	11.77	6.48	12.75	14.70	13.42	13.73
Man/Work (n = 5)						
Mean	82.40	106.40	99.80	96.60	94.20	81.40
Standard Deviation	2.51	3.85	12.70	5.86	15.16	14.22
Total (n = 24)						
Mean	78.46	106.96	99.63	92.75	97.04	87.88
Standard Deviation	10.75	5.25	13.68	16.31	17.68	16.35

feminine groups, and Table 9 summarizes the MANOVA results for the first hypothesis. No post hoc tests were performed since the results were not significant.

### Hypothesis 2

The second hypothesis centered on the masculine group and stated: Women classified as masculine on the BSRI will not vary their selection of gender-inappropriate attributes for individuals in general and in specific situations. As in the analysis of hypothesis 1, the results of the MANOVA were not significant ( $F(18,34.43) = 1.30078, p = .247$ ), and the participants did not differentiate significantly between the sex of the individual or the situation involved. The null hypothesis again was accepted. The feminine and masculine scale score means and standard deviations and the sample sizes for the masculine group are reported in Table 10. MANOVA results for the second hypothesis appear in Table 11. Absence of significant results precluded performance of any post hoc analyses.

### Hypothesis 3

Hypothesis 3 addressed the differences of the androgynous group and stated: Women classified as androgynous on the BSRI will not vary their selections of attributes for individuals in general and in specific

Table 9

Feminine Group Multiple Analysis of Variance Results for the Masculine  
and Feminine Questionnaire Scales of the Sex/Vignette Combinations

	Wilks Lambda	Approximate F	Hypothetical DF	Error DF	Significance of F
Feminine	.29128	1.30322	18.00	42.91	.234



Table 10

Masculine Group Summary Data for the Masculine and Feminine Questionnaire Scales of the  
Sex/Vignette Combinations

Questionnaire	Personal		American Society		Vignette	
	Masculine	Feminine	Masculine	Feminine	Masculine	Feminine
Woman/Home (n = 7)						
Mean	105.86	89.29	97.86	88.57	85.86	91.29
Standard Deviation	10.89	5.53	12.97	10.21	8.21	4.57
Woman/Work (n = 7)						
Mean	104.00	90.71	107.00	91.43	108.43	75.00
Standard Deviation	10.97	7.18	6.56	11.22	12.05	18.84
Man/Home (n = 2)						
Mean	99.50	90.00	103.50	100.50	108.50	97.50
Standard Deviation	3.54	4.24	9.19	2.12	3.54	10.61
Man/Work (n = 5)						
Mean	103.40	86.80	112.40	94.20	97.80	88.60
Standard Deviation	8.23	7.66	6.84	6.87	26.13	7.06
Total (n = 21)						
Mean	104.05	89.24	104.91	92.00	98.38	85.81
Standard Deviation	9.44	6.29	10.96	9.56	17.37	13.98

Table 11

Masculine Group Multiple Analysis of Variance Results for the Masculine  
and Feminine Questionnaire Scales of the Sex/Vignette Combinations

	Wilks Lambda	Approximate F	Hypothetical DF	Error DF	Significance of F
Masculine	.23048	1.30078	18.00	34.43	.247

situations as the sex of the individual involved changes. Although the MANOVA analysis neared significance ( $F(18,45.74) = 1.6189, p = .095$ ), the null hypothesis was accepted for the androgynous subjects. Results did not show that the androgynous subjects used situational needs, and not an individual's sex, as the basis of differentiation in selection of attributes. Tables 12 and 13 present the androgynous feminine and masculine scale means, standard deviations, and group sizes, and a summary of the MANOVA analysis, respectively. Since the results did not achieve significance, post hoc analysis was not executed.

#### Hypothesis 4

The final hypothesis focused on the undifferentiated group and was stated as: Women classified as undifferentiated on the BSRI will not vary their selection of attributes for individuals as the sex or situation changes. As in the other hypotheses the MANOVA results were not significant ( $F(18,34.43) = 1.42321, p = .182$ ) indicating that the women in the undifferentiated group did not use sex or situational needs as a means of differentiation in the attributes selected. The null hypothesis was accepted. The undifferentiated feminine and masculine scale means, standards deviations, and group

Table 12

Androgynous Group Summary Data for the Masculine and Feminine Questionnaire Scales of the Sex/Vignette Combinations

Questionnaire	Personal		American Society		Vignette	
	Masculine	Feminine	Masculine	Feminine	Masculine	Feminine
Woman/Home (n = 3)						
Mean	110.00	110.00	115.33	104.67	88.00	86.67
Standard Deviation	6.93	7.21	8.02	4.16	24.33	14.36
Woman/Work (n = 11)						
Mean	101.64	108.82	105.00	98.73	105.55	89.00
Standard Deviation	6.68	5.76	9.25	7.86	17.53	15.18
Man/Home (n = 4)						
Mean	96.71	110.50	102.50	98.50	89.00	89.75
Standard Deviation	10.72	7.55	10.47	18.70	8.68	24.09
Man/Work (n = 7)						
Mean	98.71	107.14	116.00	91.71	114.29	81.14
Standard Deviation	4.07	7.29	7.42	14.47	11.57	19.66
Total (n = 25)						
Mean	101.04	108.76	108.92	97.44	103.24	86.64
Standard Deviation	7.48	6.33	10.11	11.84	17.92	17.19

Table 13

Androgynous Group Multiple Analysis of Variance Results for the  
Masculine and Feminine Questionnaire Scales of the Sex/Vignette  
Combinations

	Wilks Lambda	Approximate F	Hypothetical DF	Error DF	Significance of F
Androgynous	.24804	1.61886	18.00	45.74	.095

sizes appear in Table 14, and Table 15 provides the summary of the analysis using MANOVA. In the absence of significant MANOVA results, post hoc analysis of the data for the undifferentiated group was deferred.

#### Summary of Findings

Four groups of women participating in the study were obtained following classification of the masculine and feminine scale scores on the personal version of the BSRI for the entire sample. Multiple regression of the feminine and masculine scale scores for the overall sample indicated that personal characteristics could be predictive for three of the scales. A relationship was demonstrated between the personal masculine scores and employment status and educational level, between personal feminine scores and religious preference, and between American society feminine scores and employment status. The sample scores on the masculine scales of all three questionnaires were found to be related to the placement of the questionnaire in the packet when the questionnaire appeared in the second position. Evaluation of the masculine and feminine scale scores for each group on all of the questionnaires using multiple analysis of variance yielded no significant differences, and the null hypothesis was accepted for each of the groups.

Table 14

Undifferentiated Group Summary Data for the Masculine and Feminine Questionnaire Scales of the Sex/Vignette Combinations

Questionnaire	Personal		American Society		Vignette	
	Masculine	Feminine	Masculine	Feminine	Masculine	Feminine
Woman/Home (n = 5)						
Mean	83.40	93.20	100.00	90.40	91.60	87.80
Standard Deviation	11.26	3.56	7.87	6.43	7.77	4.44
Woman/Work (n = 5)						
Mean	79.20	86.80	105.60	95.20	107.00	83.80
Standard Deviation	21.99	22.32	7.64	11.86	11.58	19.59
Man/Home (n = 7)						
Mean	77.86	83.71	100.86	88.14	85.14	92.57
Standard Deviation	12.02	11.83	17.45	20.66	16.48	18.98
Man/Work (n = 4)						
Mean	78.50	91.50	109.50	97.75	95.75	80.75
Standard Deviation	9.57	4.66	13.10	12.84	12.84	10.53
Total (n = 21)						
Mean	79.62	88.19	103.43	92.19	93.91	87.10
Standard Deviation	13.57	12.78	12.45	13.43	14.72	15.06

Table 15

Undifferentiated Group Multiple Analysis of Variance Results for the  
Masculine and Feminine Questionnaire Scales of the Sex/Vignette  
Combinations

	Wilks Lambda	Approximate F	Hypothetical DF	Error DF	Significance of F
Undifferentiated	.20735	1.42321	8.00	34.43	.182



## CHAPTER V

### SUMMARY OF THE STUDY

Views of gender role theory include the structured and symbolic interactionist perspectives. The Bem Sex Role Inventory addresses both perspectives in that individuals with structured perceptions of gender role are classified as either masculine or feminine, and individuals with symbolic interaction perceptions are labeled as either androgynous or undifferentiated. Valid research using the BSRI requires proof of the validity of the instrument. While a number of earlier studies appear to support the validity of the instrument, the number of studies obtaining inconsistent or unanticipated results emphasize the need for re-evaluation of the BSRI's validity. A summary of the study will be followed by discussion of the findings, development of conclusions and implications drawn from the results, and recommendations for further study.

#### Summary

An examination of the problem of the BSRI's validity was conducted in two parts which included evaluation of the consistency in structured women's selection of useful attributes as the needs of situations changed and the consistency in symbolic interactionist women's flexibility

in the selection of useful attributes as the sex of the individual varied. The descriptive study with an interaction comparisons design used a sample of women volunteers from a large women's health issues conference in a small southeastern city. To qualify for the study the women had to be over the age of 18, able to read and write English, and willing to participate. Following a verbal explanation of the study during the second day of the conference, questionnaire packets were distributed to 263 volunteer participants.

Each packet contained a letter of explanation; a card for requesting a copy of the results; a self-addressed, stamped envelope; a background information sheet; and three versions of the BSRI which included a personal description, their views of men or women in general in American society, and their views of a man or woman in a specific situation. The sex for the American Society and vignette questionnaires remained constant in each packet. The packets were identified only by a random four-digit number allowing the participants to remain anonymous. The women completed the questionnaires at home and used the envelope to mail the completed questionnaires back to the researcher. The study qualified for exemption from formal review by the Human Subjects Rights Committee, and return

of the completed questionnaires was interpreted as consent to participate. A total of 91 completed sets of questionnaires was returned representing a return rate of 34%.

A view of feminine role superimposed on general role theory was used to guide the study. Using a median split scoring method, each woman was classified as feminine, masculine, androgynous, or undifferentiated on the basis of her personal BSRI responses. Separate null hypotheses were developed for structured women classified as feminine or masculine using the BSRI to test their respective selection of gender appropriate or inappropriate attributes for individuals in general and in specific situations. Two additional hypotheses were generated for symbolic interactionist women classified by the BSRI as androgynous or undifferentiated to test variation in the selection of attributes as the sex of the individuals changed in general and in specific situations.

Data analysis included multiple regression on the personal characteristics and masculine and feminine scale scores for all of the questionnaires, multiple analysis of variance (MANOVA) on the order of appearance in the packet and the questionnaire scale scores, and MANOVA on the questionnaire scale scores and sex/vignette combinations

for each of the sample personal BSRI classification groups. The multiple regression indicated that several personal characteristics influenced one masculine and two feminine scale scores. Employment status influenced both personal masculine and American society feminine scores. Educational level was predictive of personal masculine scores as well. Religious preference was found to have a negative impact on personal feminine scores. The greatest amount of variance accounted for by the personal characteristics was the 12% achieved collectively by the combination of employment status and educational level on the personal masculine scores.

The second position of a questionnaire in the packet was found to lead to significant variation on the three masculine scales. The discriminant function analysis performed subsequent to the MANOVA demonstrated that over 50% and as much as 75% of the variance on the three masculine scales in the second packet position could be attributed to the questionnaire's placement. In contrast the feminine scales exhibited extremely low values when the standardized discriminant function coefficients were squared.

MANOVA results for each of the four hypotheses were nonsignificant, leading to acceptance of the null

hypothesis in all cases. Feminine and masculine women with the theoretical structured view of role were not found to discriminate between attributes for men and women on the basis of sex. Androgynous and undifferentiated women in their theoretical symbolic interactionist perceptions of role did not exhibit significant differences in the attributes selected for men and women when the situational needs changed. Planned post hoc discriminant function analyses were not conducted in the absence of significant results.

#### Discussion of Findings

The problem of study was developed in two parts, consistency in BSRI responses on the basis of gender and consistency on the basis of situational needs. The BSRI theoretically and operationally involves both themes, and discussion of the study's results will address each in turn. An evaluation of the reflection of the study's findings on earlier studies will follow.

#### Gender Responses

The BSRI refers to feminine women as gender-typed individuals who according to structured role theory tend to manifest attributes that are feminine in nature and select actions based upon the gender connotation carried by the

action regardless of the situation's needs (Frieze et al., 1978). Masculine women are viewed as gender cross-typed individuals who also follow structured role theory, but tend to select actions which are labeled as masculine instead of feminine. Theoretically, the study should have achieved significant differences in the attributes selected by the masculine and feminine participants when women and men in American society and in the vignette situations were compared. Neither group achieved a significant difference and did not provide support for the BSRI's conceptualization of masculinity and femininity for the women in the population studied.

In theory, androgynous and undifferentiated women should not distinguish between the sexes when selecting attributes for men and women in American society and in the vignette situations since situational needs, and not gender connotations ascribed to actions, are the basis of their decisions. The absence of a significant difference on the basis of the sex of the individuals in the questionnaires for the androgynous and undifferentiated groups supports the BSRI's conceptualization of androgynous and undifferentiated women in the population studied.

### Situational Needs Responses

Mixed results again were achieved when the scores were contrasted on the basis of vignette setting. Significant differences should have been achieved between the home and work vignette setting scores for the androgynous and undifferentiated groups since the situational needs serve as the determining factor for selection of attributes in the two groups. The lack of significant results did not provide support for the validity of the BSRI with the women in the study's sample. No significant differences on the basis of vignette setting were hypothesized for the feminine and masculine groups and none were obtained, supporting the validity of the BSRI for the gender-typed and gender cross-typed groups.

### Previous Studies

Comparison of the results of the study with previous studies must take several factors into consideration. First, the use of a descriptive design precludes making any inferences beyond the population studied. Second, the impact of several personal characteristics as predictors of the personal masculine and feminine scale scores and the American society feminine scale scores cannot be overlooked as possibly influencing the overall results. Finally, the strong negative correlation between the masculine scores on

the personal and vignette questionnaires and the strong positive correlation between the masculine scores on the American society questionnaires when they appeared in the second position in the packet also may have influenced the overall results. With these facts in mind, several points can be gleaned from evaluation of the study's results in the light of previous research.

The failure of masculine and feminine women in the study to differentiate between men and women on the American society and vignette questionnaires provides another sample for which the actual findings obtained using the instrument are inconsistent with the anticipated findings. The results support three studies in which responses by feminine women were not in the direction hypothesized. Two studies involved acceptance of self and others (Andersen, 1978) and interaction with a kitten (Bem, 1977). In the third study, Johnson and Black (1981) found that feminine women, not masculine women as hypothesized, perceived their locus of control to be internal. Although the hypothesized difference was achieved with feminine women in other studies, including studies by Bem and Lenney (1976), Hansson et al. (1977), and one by Bem et al. (1976) in which the kitten was replaced with a baby, the continuing achievement of inconsistent results cannot be



ignored. The absence of distinction between the masculine and feminine scale scores for the different vignette settings in the current study indicates that androgyny may have a different meaning for women within a group in addition to the differences in meaning noted by Andersen and Bem (1981) between men and women.

The lack of significant differences in terms of gender and the predictive influence of several personal factors may provide support for the results of the factor analyses of the BSRI in that the masculine and feminine scales may not be distinguishing the women in the study solely on the basis of the two dimensions included in the scale. Andersen's (1978) recommendation that androgyny's antecedents be identified is emphasized. The results also may indicate that Levine-Shneidman and Levine (1985) and Cowan and Kinder (1985) are correct in asserting that femininity is being redefined in the 1980s.

#### Conclusions and Implications

The results from the study provide further evidence that validity of an instrument must be established for each population with which it is used. Although an absolute conclusion that the BSRI is not valid for use with the population sampled in the study cannot be inferred, validity of its use with that population has not been

demonstrated. Prior to establishing validity for the women in the study, further examination of the influence of the personal characteristics and questionnaire order in the packets would need to transpire.

When the findings of the study are viewed in connection with earlier research studies, a number of concerns again surface. The continuation of inconsistent or unanticipated results in addition to the changes in perceptions of gender roles occurring since the instrument's development in the early 1970s, lead to questions about the relevance of the attributes included in the questionnaire, or its content validity, in the 1980s. The continued identification of multiple dimensions, rather than only masculinity and femininity, poses further questions about the construct and content validity of the BSRI. The results of the study did not provide the answers to these questions nor did they demonstrate any purpose for distinguishing between individuals on the basis of gender role orientation. With the blurring of gender roles in the 1980s, a reasonable conclusion may be that masculinity and femininity no longer serve any useful purpose.

Nursing's expansion of research methodology to include phenomenology and the profession's need to examine the mental and physical health status of women in the context

of the changing social scene provides an opportunity for nurse researchers to determine whether masculinity and femininity actually exist as unique constructs. If no clear distinctions can be discerned, then nurse researchers can help to educate other researchers about the lack of validity for instruments using the constructs and channel research studies into other areas. If distinctions are shown to exist, nurse researchers can establish definitions to be used in testing the BSRI and other gender role instruments as well as in the development of new research instruments.

#### Recommendations for Further Study

Further research needs to be conducted in the following areas:

1. A phenomenological study to investigate the meaning of femininity among women.
2. A phenomenological study to investigate the meaning of masculinity among women.
3. A descriptive study of women asked to describe themselves on the personal version and in both vignette versions of the BSRI to determine the impact of knowledge of two distinct situations on the masculine and feminine scale scores.

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APPENDIX A  
VERBAL EXPLANATION, LETTER OF INFORMATION,  
AND DATA COLLECTION INSTRUMENTS

## VERBAL EXPLANATION

My name is Victoria Strickland, and I am a doctoral student in the College of Nursing at Texas Woman's University. As both a nurse and a woman, I have become interested in women's views of the roles of men and women in today's world. My dissertational research study focuses on that topic, and my purpose today is to ask for volunteers to participate in the study.

As a participant you will be given a packet with a personal information sheet and three questionnaires. Each questionnaire has directions attached and will take approximately 10 minutes to complete. There are no right or wrong answers. Women's views may differ. As you complete the questionnaires, you may become more aware of your own thoughts, feelings, and actions. Such increased awareness can be experienced as pleasant, uncomfortable, or a mixture of both sensations.

If you decide to participate, you simply will complete the questionnaires and return them by mail in the self-addressed stamped envelope provided. You will not put your name on any of the questionnaires. Each packet will be assigned a number--only you will know the number. If you decide at any time you wish to withdraw from the study, all you will need to do is to notify me of your code number

and your wish to withdraw. The information in the study will be grouped when it is reported so that no individual can be identified by the report.

If you are willing to participate, please see me at the door to pick up your packet. Thank you for your time and consideration.

## LETTER OF INFORMATION

Dear Participant,

As a graduate student at Texas Woman's University, College of Nursing, I am studying the way today's women view the roles of men and women. Your participation in the study will require about 30 to 40 minutes of your time. There are three questionnaires and a personal information sheet each of which will take approximately 10 minutes to complete. Please complete them in the order in which they appear in the packet.

As you complete the questionnaires, you may become more aware of your own thoughts, feelings, and actions. Such increased awareness can be experienced as pleasant, uncomfortable, or a mixture of both sensations. There are no right or wrong answers. People differ in their views. Your response is a matter of your personal opinion.

Your participation in the study is voluntary. You are in no way obligated to participate, and you are free to withdraw at any time. No names will appear on any of the information, and there is no way to identify any individual in the reporting of the findings. Please do not include your name on any of the sheets in the packet. The number appearing at the top of this page is your code number, so you will need to keep this letter as a record of your number. After you have completed the questionnaires, please place them in the stamped self-addressed envelope and return them to me via mail as soon as possible.

If you would like a copy of the group findings, complete the information on the enclosed three-by-five card and place it in the packet with the questionnaires. It will be removed and filed prior to removing the questionnaires. The findings will be available in the summer of 1988.

If you have any questions regarding the study, please contact me or my study chairman at:

Victoria A. Strickland  
420 Moody Avenue  
Martin, TN 38237  
(901) 587-4053

Dr. Anne M. Gudmundsen  
Dean, College of Nursing  
Texas Woman's University  
Denton, TX 76204  
(817) 898-2401

Thank you for your time and consideration.

Sincerely,

Victoria A. Strickland, MSN



## ENCLOSURE TO THE LETTER OF INFORMATION

If you would like a copy of the findings, please complete the following:

NAME:

ADDRESS:

CITY, STATE, ZIP:

## PERSONAL INFORMATION

The following information will be used only for the purpose of grouping the results. None of the information will be used to describe specific individuals.

Age \_\_\_\_\_

Ethnic group \_\_\_\_\_

Marital status \_\_\_\_\_

Number of children:

Girls \_\_\_\_\_

Boys \_\_\_\_\_

Religious preference \_\_\_\_\_

Highest educational  
level achieved \_\_\_\_\_

Occupation \_\_\_\_\_

Current employment status \_\_\_\_\_

## PERSONAL QUESTIONNAIRE

## DIRECTIONS

On the following page, you will find listed a number of personality characteristics. We would like you to use those characteristics to describe yourself, that is, we would like you to indicate, on a scale from 1 to 7, how true of you each of these characteristics is. Please do not leave any characteristic unmarked.

Example: sly

Write a 1 if it is never or almost never true that you are sly.

Write a 2 if it is usually not ever true that you are sly.

Write a 3 if it is sometimes or infrequently true that you are sly.

Write a 4 if it is occasionally true that you are sly.

Write a 5 if it is often true that you are sly.

Write a 6 if it is usually true that you are sly.

Write a 7 if it is always or almost always true that you are sly.

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

Sly	3
Malicious	1

Irresponsible	7
Carefree	5

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## DESCRIBE YOURSELF

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

Self-reliant		Makes decisions easily	
Yielding		Compassionate	
Helpful		Sincere	
Defends own beliefs		Self-sufficient	
Cheerful		Eager to soothe hurt feelings	
Moody		Conceited	
Independent		Dominant	
Sly		Soft-spoken	
Conscientious		Likable	
Athletic		Masculine	
Affectionate		Warm	
Theatrical		Solemn	
Assertive		Willing to take a stand	
Flatterable		Tender	
Happy		Friendly	
Strong personality		Aggressive	
Loyal		Gullible	
Unpredictable		Inefficient	
Forceful		Acts as a leader	
Feminine		Childlike	
Reliable		Adaptable	
Analytical		Individualistic	
Sympathetic		Does not use harsh language	
Jealous		Unsystematic	
Has leadership abilities		Competitive	
Sensitive to the needs of others		Loves children	
Truthful		Tactful	
Willing to take risks		Ambitious	
Unwilling to stand up for oneself		Gentle	
Secretive		Conventional	

## WOMEN IN AMERICAN SOCIETY QUESTIONNAIRE

## DIRECTIONS

On the following page, you will find listed a number of personality characteristics. We would like you to use those characteristics to describe women in American society, that is, we would like you to indicate, on a scale from 1 to 7, how beneficial for women in American society each of these characteristics is. Please do not leave any characteristic unmarked.

Example: sly

Write a 1 if it is never or almost never beneficial for women in American society to be sly.

Write a 2 if it is usually not ever beneficial for women in American society to be sly.

Write a 3 if it is sometimes or infrequently beneficial for women in American society to be sly.

Write a 4 if it is occasionally beneficial for women in American society to be sly.

Write a 5 if it is often beneficial for women in American society to be sly.

Write a 6 if it is usually beneficial for women in American society to be sly.

Write a 7 if it is always or almost always beneficial for women in American society to be sly.

Thus, if you feel it is sometimes but infrequently beneficial that women in American society are "sly," never or almost never beneficial that women in American society are "malicious," always or almost always beneficial that women in American society are "irresponsible," and often beneficial that women in American society are "carefree," then you would rate these characteristics as follows:

Sly	3
Malicious	1

Irresponsible	7
Carefree	5

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## DESCRIBE WOMEN IN AMERICAN SOCIETY

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

Self-reliant		Makes decisions easily	
Yielding		Compassionate	
Helpful		Sincere	
Defends own beliefs		Self-sufficient	
Cheerful		Eager to soothe hurt feelings	
Moody		Conceited	
Independent		Dominant	
Shy		Soft-spoken	
Conscientious		Likable	
Athletic		Masculine	
Affectionate		Warm	
Theatrical		Solemn	
Assertive		Willing to take a stand	
Flatterable		Tender	
Happy		Friendly	
Strong personality		Aggressive	
Loyal		Gullible	
Unpredictable		Inefficient	
Forceful		Acts as a leader	
Feminine		Childlike	
Reliable		Adaptable	
Analytical		Individualistic	
Sympathetic		Does not use harsh language	
Jenious		Unsystematic	
Has leadership abilities		Competitive	
Sensitive to the needs of others		Loves children	
Truthful		Tactful	
Willing to take risks		Ambitious	
Understanding		Gentle	
Secretive		Conventional	

## MEN IN AMERICAN SOCIETY QUESTIONNAIRE

## DIRECTIONS

On the following page, you will find listed a number of personality characteristics. We would like you to use those characteristics to describe men in American society, that is, we would like you to indicate, on a scale from 1 to 7, how beneficial for men in American society each of these characteristics is. Please do not leave any characteristic unmarked.

Example: sly

- Write a 1 if it is never or almost never beneficial for men in American society to be sly.  
 Write a 2 if it is usually not ever beneficial for men in American society to be sly.  
 Write a 3 if it is sometimes or infrequently beneficial for men in American society to be sly.  
 Write a 4 if it is occasionally beneficial for men in American society to be sly.  
 Write a 5 if it is often beneficial for men in American society to be sly.  
 Write a 6 if it is usually beneficial for men in American society to be sly.  
 Write a 7 if it is always or almost always beneficial for men in American society to be sly.

Thus, if you feel it is sometimes but infrequently beneficial that men in American society are "sly," never or almost never beneficial that men in American society are "malicious," always or almost always beneficial that men in American society are "irresponsible," and often beneficial that men in American society are "carefree," then you would rate these characteristics as follows:

Sly	3
Malicious	1

Irresponsible	7
Carefree	5

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## DESCRIBE MEN IN AMERICAN SOCIETY

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

Self-reliant		Makes decisions easily	
Yielding		Compassionate	
Helpful		Sincere	
Defends own beliefs		Self-sufficient	
Cheerful		Eager to soothe hurt feelings	
Moody		Conceited	
Independent		Dominant	
Shy		Soft-spoken	
Conscientious		Likable	
Athletic		Masculine	
Affectionate		Warm	
Theatrical		Solemn	
Assertive		Willing to take a stand	
Flatterable		Tender	
Happy		Friendly	
Strong personality		Aggressive	
Loyal		Glib	
Unpredictable		Inefficient	
Forceful		Acts as a leader	
Feminine		Childlike	
Reliable		Adaptable	
Analytical		Individualistic	
Sympathetic		Does not use harsh language	
Josious		Unsystematic	
Has leadership abilities		Competitive	
Sensitive to the needs of others		Loves children	
Truthful		Tactful	
Willing to take risks		Ambitious	
Understanding		Gentle	
Secretive		Conventional	



## WOMAN IN HOME VIGNETTE QUESTIONNAIRE

## SITUATION

A woman and man discover their 14-year-old child smoking cigarettes. They disagree over how to handle the incident. One parent wants to discipline the child while the other parent wants to discuss the incident with the child.

In resolving the situation, how beneficial would the characteristics on the following page be for the woman?

## DIRECTIONS

On the following page, you will find listed a number of personality characteristics. We would like you to use those characteristics to describe the woman in the outlined situation, that is, we would like you to indicate, on a scale from 1 to 7, how beneficial for the woman in the situation each of these characteristics is. Please do not leave any characteristic unmarked.

Example: sly

Write a 1 if it is never or almost never beneficial for the woman in the situation to be sly.

Write a 2 if it is usually not ever beneficial for the woman in the situation to be sly.

Write a 3 if it is sometimes or infrequently beneficial for the woman in the situation to be sly.

Write a 4 if it is occasionally beneficial for the woman in the situation to be sly.

Write a 5 if it is often beneficial for the woman in the situation to be sly.

Write a 6 if it is usually beneficial for the woman in the situation to be sly.

Write a 7 if it is always or almost always beneficial for the woman in the situation to be sly.

Thus, if you feel it is sometimes but infrequently beneficial that the woman in the situation is "sly," never or almost never beneficial that the woman in the situation is "malicious," always or almost always beneficial that the woman in the situation is "irresponsible," and often beneficial that the woman in the situation is "carefree," then you would rate these characteristics as follows:

Sly	3
Malicious	1

Irresponsible	7
Carefree	5

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## DESCRIBE THE WOMAN IN THE SITUATION

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

Self-reliant		Makes decisions easily	
Yielding		Compassionate	
Helpful		Sincere	
Defends own beliefs		Self-sufficient	
Cheerful		Eager to soothe hurt feelings	
Moody		Conceited	
Independent		Dominant	
Sly		Soft-spoken	
Conscientious		Likable	
Athletic		Masculine	
Affectionate		Warm	
Theatrical		Solemn	
Assertive		Willing to take a stand	
Flatterable		Tender	
Happy		Friendly	
Strong personality		Aggressive	
Loyal		Gullible	
Unpredictable		Inefficient	
Forceful		Acts as a leader	
Feminine		Childlike	
Reliable		Adaptable	
Analytical		Individualistic	
Sympathetic		Does not use harsh language	
Jealous		Unsystematic	
Has leadership abilities		Competitive	
Sensitive to the needs of others		Loves children	
Truthful		Tactful	
Willing to take risks		Ambitious	
Understanding		Gentle	
Secretive		Conventional	

## MAN IN HOME VIGNETTE QUESTIONNAIRE

## SITUATION

A man and woman discover their 14-year-old child smoking cigarettes. They disagree over how to handle the incident. One parent wants to discipline the child while the other parent wants to discuss the incident with the child.

In resolving the situation, how beneficial would the characteristics on the following page be for the man?

## DIRECTIONS

On the following page, you will find listed a number of personality characteristics. We would like you to use those characteristics to describe the man in the outlined situation, that is, we would like you to indicate, on a scale from 1 to 7, how beneficial for the man in the situation each of these characteristics is. Please do not leave any characteristic unmarked.

Example: sly

Write a 1 if it is never or almost never beneficial for the man in the situation to be sly.

Write a 2 if it is usually not ever beneficial for the man in the situation to be sly.

Write a 3 if it is sometimes or infrequently beneficial for the man in the situation to be sly.

Write a 4 if it is occasionally beneficial for the man in the situation to be sly.

Write a 5 if it is often beneficial for the man in the situation to be sly.

Write a 6 if it is usually beneficial for the man in the situation to be sly.

Write a 7 if it is always or almost always beneficial for the man in the situation to be sly.

Thus, if you feel it is sometimes but infrequently beneficial that the man in the situation is "sly," never or almost never beneficial that the man in the situation is "malicious," always or almost always beneficial that the man in the situation is "irresponsible," and often beneficial that the man in the situation is "carefree," then you would rate these characteristics as follows:

Sly	3
Malicious	1

Irresponsible	7
Carefree	5

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## DESCRIBE THE MAN IN THE SITUATION

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

Self-reliant		Makes decisions easily	
Yielding		Compassionate	
Helpful		Sincere	
Defends own beliefs		Self-sufficient	
Cheerful		Eager to soothe hurt feelings	
Moody		Conceited	
Independent		Dominant	
Shy		Soft-spoken	
Conscientious		Likable	
Athletic		Masculine	
Affectionate		Warm	
Theatrical		Solemn	
Assertive		Willing to take a stand	
Flatterable		Tender	
Happy		Friendly	
Strong personality		Aggressive	
Loyal		Gullible	
Unpredictable		Inefficient	
Forceful		Acts as a leader	
Feminine		Childlike	
Reliable		Adaptable	
Analytical		Individualistic	
Sympathetic		Does not use harsh language	
Jealous		Unsystematic	
Has leadership abilities		Competitive	
Sensitive to the needs of others		Loves children	
Truthful		Tactful	
Willing to take risks		Ambitious	
Understanding		Gentle	
Secretive		Conventional	

## WOMAN IN WORK VIGNETTE QUESTIONNAIRE

## SITUATION

A woman and man have worked together on a project which is to be presented the following day to the management of the company employing them both. They disagree over who should do the presentation.

In resolving the situation, how beneficial would the characteristics on the following page be for the woman?

## DIRECTIONS

On the following page, you will find listed a number of personality characteristics. We would like you to use those characteristics to describe the woman in the outlined situation, that is, we would like you to indicate, on a scale from 1 to 7, how beneficial for the woman in the situation each of these characteristics is. Please do not leave any characteristic unmarked.

Example: sly

Write a 1 if it is never or almost never beneficial for the woman in the situation to be sly.

Write a 2 if it is usually not ever beneficial for the woman in the situation to be sly.

Write a 3 if it is sometimes or infrequently beneficial for the woman in the situation to be sly.

Write a 4 if it is occasionally beneficial for the woman in the situation to be sly.

Write a 5 if it is often beneficial for the woman in the situation to be sly.

Write a 6 if it is usually beneficial for the woman in the situation to be sly.

Write a 7 if it is always or almost always beneficial for the woman in the situation to be sly.

Thus, if you feel it is sometimes but infrequently beneficial that the woman in the situation is "sly," never or almost never beneficial that the woman in the situation is "malicious," always or almost always beneficial that the woman in the situation is "irresponsible," and often beneficial that the woman in the situation is "carefree," then you would rate these characteristics as follows:

Sly	3
Malicious	1

Irresponsible	7
Carefree	5

## DESCRIBE THE WOMAN IN THE SITUATION

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

Self-reliant		Makes decisions easily	
Yielding		Compassionate	
Helpful		Sincere	
Defends own beliefs		Self-sufficient	
Cheerful		Eager to soothe hurt feelings	
Moody		Conceited	
Independent		Dominant	
Shy		Soft-spoken	
Conscientious		Likable	
Athletic		Masculine	
Affectionate		Warm	
Theatrical		Solemn	
Assertive		Willing to take a stand	
Flatterable		Tender	
Happy		Friendly	
Strong personality		Aggressive	
Loyal		Gullible	
Unpredictable		Inefficient	
Forceful		Acts as a leader	
Feminine		Childlike	
Reliable		Adaptable	
Analytical		Individualistic	
Sympathetic		Does not use harsh language	
Jealous		Unsystematic	
Has leadership abilities		Competitive	
Sensitive to the needs of others		Loves children	
Truthful		Tactful	
Willing to take risks		Ambitious	
Understanding		Gentle	
Secretive		Conventional	

## MAN IN WORK VIGNETTE QUESTIONNAIRE

## SITUATION

A man and woman have worked together on a project which is to be presented the following day to the management of the company employing them both. They disagree over who should do the presentation.

In resolving the situation, how beneficial would the characteristics on the following page be for the man?

## DIRECTIONS

On the following page, you will find listed a number of personality characteristics. We would like you to use those characteristics to describe the man in the outlined situation, that is, we would like you to indicate, on a scale from 1 to 7, how beneficial for the man in the situation each of these characteristics is. Please do not leave any characteristic unmarked.

Example: sly

Write a 1 if it is never or almost never beneficial for the man in the situation to be sly.

Write a 2 if it is usually not ever beneficial for the man in the situation to be sly.

Write a 3 if it is sometimes or infrequently beneficial for the man in the situation to be sly.

Write a 4 if it is occasionally beneficial for the man in the situation to be sly.

Write a 5 if it is often beneficial for the man in the situation to be sly.

Write a 6 if it is usually beneficial for the man in the situation to be sly.

Write a 7 if it is always or almost always beneficial for the man in the situation to be sly.

Thus, if you feel it is sometimes but infrequently beneficial that the man in the situation is "sly," never or almost never beneficial that the man in the situation is "malicious," always or almost always beneficial that the man in the situation is "irresponsible," and often beneficial that the man in the situation is "carefree," then you would rate these characteristics as follows:

Sly	3
Malicious	1

Irresponsible	7
Carefree	5

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## DESCRIBE THE MAN IN THE SITUATION

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

Self-reliant		Makes decisions easily	
Yielding		Compassionate	
Helpful		Sincere	
Defends own beliefs		Self-sufficient	
Generous		Eager to soothe hurt feelings	
Moody		Conceited	
Independent		Dominant	
Shy		Soft-spoken	
Conscientious		Likable	
Athletic		Masculine	
Affectionate		Warm	
Theatrical		Solemn	
Assertive		Willing to take a stand	
Flatterable		Tender	
Happy		Friendly	
Strong personality		Aggressive	
Loyal		Gullible	
Unpredictable		Inefficient	
Forceful		Acts as a leader	
Feminine		Childlike	
Reliable		Adaptable	
Analytical		Individualistic	
Sympathetic		Does not use harsh language	
Jealous		Unsystematic	
Has leadership abilities		Competitive	
Sensitive to the needs of others		Loves children	
Truthful		Tactful	
Willing to take risks		Ambitious	
Understanding		Gentle	
Secretive		Conventional	



APPENDIX B  
LETTER OF PERMISSION

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