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THE COMPARABILITY OF MASCULINE AND FEMININE GENDER SCHEMAS FOR MALE AND FEMALE COLLEGE STUDENTS

The University of North Carolina at Greensboro PH.D. 1984

THE COMPARABILITY OF MASCULINE AND FEMININE GENDER SCHEMAS FOR MALE AND FEMALE COLLEGE STUDENTS

by

James Thomas Morris Jr.

A Dissertation Submitted to
the Faculty of the Graduate School at
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Approved by

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APPROVAL PAGE

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The purpose of this study was to investigate the psychological gender equivalence of biological males and females in sex-type groups. The question was investigated by surveying 300 students at a small, private, liberal arts college in the Piedmont area of North Carolina. The groups included 160 females and 140 males between the ages of 18 and 24. The survey was administered during regular class sessions, and the subjects were from predominantly middle-and upper-middle-class families.

The students were administered a modified form of the Bem Sex Role Inventory consisting of 60 personality characteristics, 20 considered masculine items, 20 considered feminine items, and 20 considered neutral items. The subjects were instructed to respond on a 7-point Likert scale to the characteristics. The modified version provided two additional columns after each item for additional responses. Respondents were instructed to indicate 1) how items best describe themselves, 2) how items best describe members of their own sex, and 3) how items best describe members of the opposite sex. Using the median-split method of scoring, the subjects were placed in either the Masculine, Feminine, Androgynous, or Undifferentiated Sex-type group.

The results indicated that males and females in all sex-type groups have a stereotyped understanding of how males and females should be rated on masculine and feminine characteristics. Moreover, males in all sex-typed groups rated females as lower than themselves on masculine items, and females in all sex-type groups rated males as lower than themselves on feminine items.

The results also indicated that the sexes have differing perceptions of "maleness" and "femaleness". Males consistently rated males higher on masculine items and females higher on feminine items. Females rated males consistently higher on masculine items than did males. Females also rated females higher on masculine items than did males. Males and females generally had high levels of agreement on where both "males" and "females" should be rated on feminine items. The findings argue against the presumption forwarded by recent theorists of sex-role development, that males and females assigned to the same sex-type group are psychologically equivalent with regard to their gender schemas.

The present findings suggest the need for a reconceptualization of the qualities of male and female gender schemas, and serve to question the utility of attributing common psychological traits to individual members of sex-type groups.

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To my mother, Louise Morris, for whose encouragement, love, and support I am deeply grateful. I dedicate this study to the memory of my father, Mr. James T. Morris, who did not get to see this goal completed.

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Finally, I wish to express my deep appreciation, and thanks to my wife Elsie, whose help, encouragement, faith, and support made this study possible to complete.

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CHAPTER I

INTRODUCTION

During the past decade a great deal of research effort has been focused on the investigation of sex roles and sex types in adults and children (Huston,1983). A recent trend appearing in this research concerns the classification of individuals into sex-type groups without regard to biological sex (e.g. Lenney, 1979a, 1979b). In none of this research, however, has it been demonstrated that masculine or feminine sex-types and their underlying gender schemas are comparable for both biological males and females. The primary objective of this investigation was to examine the comparability of Masculine, Feminine, Androgynous, and Undifferentiated gender schemas of biological males and females.

Theoretical Background

Much of the recent theorizing about the development of gender schemas has been done by Bem (1981, 1982) and Markus, Crane, Bernstein & Siladi (1982). These investigations have resulted in cognitive theories of gender-role development. Both Bem (1982) and Markus et al. (1982) have suggested that individuals come to develop different types of cognitive gender schemas which are used to process and encode gender relevant information. In these perspectives, a gender schema

is a cognitive structure defined by a network of associations that organize and guide perceptions (Bem 1981).

Bem (1981) viewed the schema as an anticipatory structure which includes a readiness to search for and assimilate incoming information in schema relevant terms. Gender schematic processing was considered by Bem as highly selective for the individual and to be organized in a way which assists in imposing a structure and meaning onto a vast array of incoming data and stimuli. Bem (1981) further suggested that gender schemas have motivational functions in that they prompt individuals to regulate gender-specific behavior so that it conforms to cultural definitions and norms of behavior which are sex-typed and gender-appropriate.

Markus et al. (1982) also viewed the schema as a central cognitive unit of information processing which is active in the categorization and interpretation of social events and behavior. In this view, gender schemas are said to be derived from self-schemas, which are assumed to be summaries of behaviors gained from looking back into past experiences. Such self-schemas represent knowledge taken from the past organization and processing of information and are said to assist an individual in understanding social experience and in organizing such experience from information about the self.

Gender Schema and Sex-Type

Bem (1981) proposed that sex-typing, in part, is derived from a generalized readiness to process information based on the sex-linked associations making up the gender schema. Bem generally viewed individuals as belonging to one of four sex-type groups: Masculine, Feminine, Androgynous, or Undifferentiated. She referred to those in the Masculine or Feminine groups as sex-typed, and to those in the Androgynous and Undifferentiated groups as non-sex-typed. Sex-typed individuals, both male and female, are thought to be aware of differences between masculine and feminine stimuli. Bem has suggested that such sensitivity is used by sex-typed individuals to categorize information into the proper category of "me", "not me" judgements. Non-sex-typed individuals are divided into two groups: androgynous individuals (male and female) are aware of masculine and feminine traits, but relate to them without applying the concepts of masculinity or femininity. Thus, such individuals are assumed neutral in regard to personal salience for either masculine or feminine categories. Undifferentiated (male and female) individuals are described as not especially sensitive to either masculine or feminine stimuli and hence are also seen as neutral with regard to their personal salience for either masculine or feminine categories.

Markus et al. (1982), using the Bem Sex Role Inventory, also categorized individuals into these four sex-type groups: Masculine Schematics (Masculine), Feminine Schematics (Feminine), High Androgynous (Androgynous), and Low Androgynous (Undifferentiated). Like Bem (1981), they suggested that individual schematic structures underlie and determine sex-type categories. However, Markus et al. (1982) defined the schemas underlying these classifications differently. They asserted masculine schematics to be individuals who are sensitive primarily to, and are expert in, domains of masculinity. Feminine schematics are individuals who are sensitive to, and are expert in, domains of femininity. High Androgynous individuals appear to have and attend to both masculine and feminine schemas. Low Androgynous individuals are apparently without knowledge and structure of many gender-relevant concepts and are judged as aschematic with regard to gender.

Statement of the Problem

Notwithstanding the fundamental differences in schema definitions by Bem (1981, 1982), Markus et al. (1982), and Crane & Markus (1982), both perspectives referred to differential schema structures as the basis for group membership in one of the previously mentioned sex-type groups. Further, both Bem (1981) and Markus et al. (1982) found it useful to differentiate between gender-schematic and gender-aschematic persons based on sex-type categories.

Although Bem (1981) alluded to possible differences between males and females in the masculine sex-type group and males and females in the feminine sex-type group, and Markus et al. (1982) suggested possible differences between individuals with "masculine" identities and individuals with "feminine" identities (male and females), neither theoretical perspective directly addressed the issue of schema comparability between the sexes. Neither Bem (1981) nor Markus et al. (1982) made any distinction between the schemas of males and females classified within the same sex-type category. Through the use of the median-split (or other statistical) procedure of categorizing subjects, based on subjects' self ratings on masculine and feminine characteristics, individuals are placed in one of the four sex-type categories, i.e., Masculine, Feminine, Androgynous, or Undifferentiated. This placement is made without regard to the subjects' biological sex. Consequently, Bem (1981) and Markus et al. (1982) concluded, albeit tacitly, that the presence or absence of gender-related schemas underlying these four sex-type categories have the same conceptual properties and features for biological males and females. While this conclusion is reasonable from the standpoint of measurement and data analysis, it fails to consider the possibility that different socialization experiences for males and females might qualitatively and quantitatively alter the perceptions of the sexes: e.g., a masculine

sex-type schema for the male might differ in extent and structure from a masculine sex-type schema for a female. The same problem holds for males and females in the other sex-type categories.

The issue of comparability is central to an understanding of the nature of gender schemas for males and females. For example, if the gender schemas of males and females have both a quantitative similarity, as indicated by a similar score, and a qualitative similarity, i.e., the meaning attached to a trait, then the main premises of Bem (1981) and Markus et al. (1982) will tend to be supported. That is, biological males and females falling in the same category can be assumed to be psychologically equivalent insofar as their sex-type schemas are concerned. However, if a quantitative score does not equate to the qualitative definitions of a sex-type for males and females, this assumption is unfounded. For example, women who score high ratings of self on such items as "aggressive" or "competitive" may not perceive themselves to be as aggressive or competitive as males who have given themselves a similar numeric self rating score (Locksley & Colten,1979; Pedhazur & Tetenbaum,1979).

Purpose of Present Study

Both Bem (1981) and Markus et al. (1982) have offered theoretical perspectives about how the schematic processing of gender-relevant information is related to sex-typing in adults. Both points of view included judgments about

differential schematic structures based on sex-type group membership. Both theorists have posited that individuals in different sex-type groups have different schema structures. Both have essentially accepted the null hypothesis: no differences exist between the biological sexes within each sex-type group.

This study is based on the assumption that before one can accept theoretical constructs built upon evidence derived from between-group observations, it is desirable to have empirical evidence supporting the contention that the within-group elements are comparable. Such judgements about the comparability of schemas within sex-type groups have been inferred, but not verified. It is essential, therefore, to determine what referent groups males and females use when rating self on masculine and feminine traits, and to what extent the items carry the same meanings for males and females. Put another way, the central question of the present investigation is this: Is it useful to view sex-type schemas of males and females as psychologically equivalent, as is done by Bem (1981) and Markus et al. (1982), or are the scores leading to schema and sex-type classifications of males and females based on the use of different biological referent groups?

To address this question, the Bem Sex Role Inventory (BSRI) was modified (see appendix A) to permit comparisons between an individual's self-ratings and the individual's

ratings of same-sex and opposite-sex groups. As can be seen in appendix A, Column A requires subjects to complete the form describing themselves, which is identical to the requests of the original Bem Sex Role Inventory. Column B requires subjects to estimate the central tendency of members of their own biological sex on the same traits. And Column C requires subjects to estimate the central tendency of members of the opposite sex on these same traits.

This revised procedure allows for comparisons of male and female perceptions on three dimensions: A Self perception score, a Same-Sex perception score, and an Opposite-Sex perception score. If, for any given sex-type group, there are no differences between the self, same-sex, and opposite-sex scores for males and females, then one could conclude that a) similar referent groups are used by males and females as a basis for self-ratings, and b) the sexes share common meanings for these traits. If this premise proves correct, then differentiation by sex-type would indicate, as argued by Bem (1981) and Markus et al. (1982), that differing groups of persons have different gender schemas that are independent of biological sex.

An alternative view is that same-sex identification, as fostered by the socialization process, is responsible for the scores and inferred gender schemas of males and females. It can be argued that males and females process gender-relevant information vis a vis a gender schema which has been

constructed with one's biological sex as the salient referent group. Such a view would suggest that concepts of masculinity and femininity cannot be considered independent of one's male or female group membership. It is group membership based on biological sex, and the concurrent gender socialization process, which are paramount in the construction and maintenance of gender schemas for males and females.

Hypotheses and Questions

The present investigation focuses on three central questions:

1. Do males and females (in all sex-type categories) perceive differences in the ways that same-sex and opposite sex-groups should be rated on the masculine and feminine items of the Bem scale? In other words, do males and females have a stereotyped awareness of different sex-role identities for the sexes?

2. Are the self ratings of males and females in the various sex-typed categories more similar to central tendency estimates of their own biological gender group than to those of the opposite sex?

3. Do males and females share the same perceptual understanding of maleness and femaleness as defined by the consistency of their perceived ratings of same-sex and opposite-sex ratings?

To address these questions and test the viability of a differential gender schema perspective, several hypotheses were tested. The first area of inquiry dealt with the similarity of stereotypic knowledge of males and females on the dimensions of masculinity and femininity.

Hypothesis 1. Males and females in all sex-type categories differentiate between ratings given to same-sex and opposite-sex groups, thus indicating a perceptual awareness of stereotypic (schematic) gender differences between the biological sexes.

The second hypothesis was concerned with whether males and females would consistently follow such "known" stereotyped patterns.

Hypothesis 2. Males and females in all sex-type categories perceive gender-related differences between themselves and members of the opposite sex as reflected in reliable differences between self-ratings and opposite-sex ratings on the BSRI.

The third hypothesis was concerned with whether males and females perceive themselves as rating more closely to members of their own sex.

Hypothesis 3. Males and females in all sex-type categories perceive the gender-related characteristics of their self ratings to be more similar to those of their own sex than to those of the opposite sex.

A second and distinct area of inquiry dealt with the comparability of males and females on the qualitative dimension of similarity of meanings associated with the masculine and feminine traits. If males and females are differentially socialized, then concepts of masculinity and femininity might also be different for the two sexes. Questions of qualitative similarity between males and females have been previously raised (cf. Locksley & Colten, 1979; Pedhazur & Tetenbaum, 1979). It has been suggested that males and females might not share similar meanings for terms such as "aggressive". If accurate, this contention suggests

the possibility that males and females might in fact, have different definitions of "maleness" or "femaleness" based on definitional differences.

To test this contention, hypotheses 4 and 5 concerned whether males and females might hold differential perceptions of one another based on different perceptions of masculine and feminine items.

Hypothesis 4. Males and females exhibit differential perceptions of gender-related characteristics of maleness as reflected by same-sex and opposite-sex ratings, respectively.

Hypothesis 5. Males and females exhibit differential perceptions of gender-related characteristics of femaleness as reflected by same-sex and opposite-sex ratings, respectively.

CHAPTER II

REVIEW OF RELATED LITERATURE

The present investigation focused on the dualities of gender-related schemas of males and females. The review of related literature addresses several fundamental issues related to this inquiry: (1) the process of gender socialization and differentiation, (2) current schema theories of sex-typing and gender roles, and (3) the measurement of gender schemas.

The acquisition and maintenance of concepts of masculinity and femininity in socialization are not only complex but pervasive from the individual's standpoint. Mischel (1970) noted that "sex-typing is the process whereby the individual comes to acquire, to value, and to adopt for himself sex-typed behavior patterns." Thus such patterns could be seen as behaviors that are expected or normative within a culture.

Lee and Groper (1974) cited several areas or patterns of sex-typed differences.

1. Communication: different patterns of speech and emotional expression

2. Physical gestures: sitting, walking, stance styles of the two sexes

3. Naming: last names patronymic, first names male or female

4. Group affiliations: sex-segregated children's and adult organizations

5. Dress and grooming: lipstick, earrings, dresses (female only), et cetera

6. Cultural artifacts: sex typed toys, needlework (female), woodcarving (male)

7. Occupations and tasks: many jobs in home and community sex-typed

8. Games and avocations: team sports (more male than female)

These areas illustrate the various social experiences which are reinforced within our society. As Mischel (1970) noted, the tendency of individuals is to identify with these gender-based ideals in terms of what he called cognitive consistency strivings. Mischel cited Kagan's (1964) observation that there is a close link between sex-role stereotypes and sex-role standards. Kagan (1964) went on to suggest that stereotypes which define sex-role behaviors might in fact actually serve as standards themselves. It is suggested that one of the most salient of the sex-role standards involves the culturally shared sex-role expectations that males and females share about masculinity and femininity (Mischel, 1970; Brown, 1965).

Gender Socialization and Differentiation

Gender socialization and infancy. Of all the elements that influence the individual self-concept, there is none more important than the simple fact that one is born either male or female. This biological reality is set at the

instant of conception and certain prenatal biological and hormonal interactions are set in motion which immediately are differentiated vis a vis one's sex (Money & Ehrhardt, 1972; Goldberg, 1968; Freedman,1979).

Immediately after the birth announcement indicating the sex of the newborn, another process of differentiation begins. This entails the assignment of gender and the concurrent projection of ascribed traits to the individual. From this point, the acquisition of a gender identity and the view of self based on biological sex becomes one of the most important components in the development of one's sense of self (Tischler et al., 1983).

Broom et al. (1981) have suggested that boys and girls are perceived differently and treated differently from the moment they are born. Hanson (1980) noted that delivery room personnel made sex appropriate (stereotypic) observations and comments about the infant immediately after birth. Rubin et al.(1974) found that parents tended to describe sons and daughters in different ways; e.g., daughters more often than sons were described as "cute", "little", or "beautiful" and were seen as resembling the mother, even when this was untrue in terms of physical appearance.

Observations indicate that there are differing interaction patterns between mothers and their daughters and sons. Mothers were more likely to smile at and talk to girls, whereas boys were more likely to be picked up and

handled (Korner, 1974). When physical contact is contrasted it seems that infant girls tend to be caressed more, whereas boys are roughhoused more (Lewis, 1979).

Infants are more than passive recipients of interaction; they are responsive and acting as well. Observations show different temperaments by sex, apparent at an early age. Females seem more sensitive to environmental stimuli; e.g., girls seem to stare at faces more often than baby boys (Bardwick, 1971; Lewis et al., 1966). Newborn females seem to smile more than boys (Freedman, 1979) and newborn males seem to be more aggressive than females (Bardwick, 1971), and at one year male infants tend to respond to frustration by fighting, whereas females of the same age are more likely to cry helplessly (Yorburg, 1983).

Despite these differences, Kagan (1975) suggested that there are remarkable similarities between newborn behaviors, and that the major factor in early differential treatment can be found in the cultural expectations of the adults. This is illustrated by findings such as those of Kacerguis & Adams (1979), who noted that mothers are more likely to reinforce aggressiveness by male infants and vocalization by females, and respond more frequently to female crying, thus suggesting greater protectiveness toward females.

Gender socialization during toddler years. As the human leaves infancy and enters childhood the pace of sex/gender role socialization tends to quicken. Rubin (1980) noted that

sex-role differences appear early and that by 3 years many children know that adults have differing tasks based on sex (Fauls & Smith, 1956). Children's play is seen as an important part of social and cognitive growth and development (Gander & Gardiner, 1981) but, even in this area, gender appropriate identification is seen as a significant part of the play process (Parten, 1932; Vance & McCall, 1934; Rabban, 1950; Barry & Barry, 1976).

Stoller (1967) suggested that the core of gender identity is formed during the first two or three years. Scanzoni and Fox (1980) noted that by age 6 children are clearly able to see appropriate behaviors for men and women. Children learn to see themselves as boy or girl long before they understand the meaning of biological differences (Lidz, 1976; Katcher, 1955). Girls tend to be allowed more flexibility in their gender role behavior than boys (Hartley, 1959; Duvall, 1977). Udry (1974) observed that in American culture, for example, the wearing of female clothing (dress, hair ribbons) by a male child would receive quite negative sanctions; however, male clothing on a female child would be acceptable. Even in a nursery school, it is far more acceptable for a girl to be boy-like than for a boy to be seen as a sissy (Fling & Manosevitz, (1972).

Sex and gender socialization of the young seem to be perceived as both important and necessary by the adult. In fact adults may often not even be aware of their

participation in this process. Will et al. (1976) found that mothers believe they respond in similar ways to both boys and girls, when observations indicate they do not. Furthermore, the sex of their children affects the way parents play with them. Parents tend to play with little girls differently than with boys; e.g., girls are more likely to be engaged in sociable play, whereas boys are more likely to be engaged in active play (Ober, 1979). Moreover, fathers tend to express more aggression, competition, and physical play with sons and more affection and gentleness with daughters (Lidz, 1976).

Gender socialization may also be influenced by early peer contact with other children. This may be illustrated in early childhood friendship groupings. Lipman-Blumen (1975) noted that boys are more often reared to value group involvements than are girls; i.e., boys tend to congregate in groups whereas girls tend to play in dyads. Rubin (1980) believes that young boys tend to view the group as a collective entity, with loyalty and solidarity as a major point of emphasis, whereas girls are more likely to view the group as a network of intimate two-person friendships. These friendships seem important in giving and reinforcing gender information (Bell, 1983). DuBois (1974) found that groups of playmates, all within limited age ranges, seem to develop in all societies.

Since the child is initially in what may be described as a closed system, i.e., restricted to immediate family influences, the family is an obvious source of early gender identity. Hill (1975) suggested that it is the family that determines the sex/gender roles of their members in that the family as a unit is responsible for the protection, physical maintenance, and social placement of the new members. Thus, the family has (in essence) a monopoly in the shaping of the basic personality, including the development of the all-important aspect of gender identity.

Identification with parents seems to contribute to this gender acquisition. One point of view suggested that children initially identify more with mother than with father during the preschool years, since the child is apt to spend more time with the mother during this phase. It was suggested that as the child grows older, identification with the father occurs for the male child as he adopts and acquires sex-role behaviors (Lynn, 1969; Maccoby & Jacklin, 1974).

Baumrind (1971) suggested that fathers, often serving as the source of discipline, tend to be viewed by the child as the stronger parent, whereas the mother is often seen as more responsive and expressive. Baumrind (1980) went on to say that these early perceptions, plus the fact that the father's work takes place outside of the home, might be contributing reasons why boys may come to regard women as inferior.

McDonald (1977, 1980) suggested that "social power theory" might be useful in understanding parental identification in older children. Rather than identifying with the parent of the same sex, this view suggested that adolescent youngsters tend to identify with the parent who in their view has more power.

Early experiences outside of the home may also influence the ongoing gender socialization process. Early day-care and nursery experiences may contribute to the child's knowledge of gender expectations. It has been observed, for example, that nursery school teachers paid more attention to boys than girls; furthermore, they tended to give the boys more praise, instruction, and affectionate hugging than the girls (Serbin et al., 1973). Nursery school teachers also tended to reward aggression in boys and dependency in girls. Girls were more likely to be helped in a task, whereas boys were more likely to be given directions, thus reinforcing the perception that boys are independent and girls are helpless and dependent (Serbin & O'Leary, 1975). Such perceptions don't go unnoticed by the children, and as Ollison (1977) noted, kindergarten girls were more likely than boys to say they wanted to be the other sex.

Gender socialization during the school years. Socialization continues into elementary school with the observation that boys are punished more often, receive higher proportions of low grades, and are less likely to be promoted

than girls (Lee & Wolinsky, 1973). Even in this setting where the teacher is usually female and in a position of authority, stereotypes are nevertheless reinforced. Baumrind (1972) noted that teachers tend to view females as the weaker sex and that boys frequently are encouraged to dominate girls in the class, thus presuming that males are more powerful than females (Baumrind , 1972). A further example of this stereotyping can be seen in a study by Clarricoates (1978) where he found that teachers expect boys to be more difficult to control and more active, and in fact, teachers expect to spend more time catering to and subduing boys' activities. Girls are expected to do better than boys and are regarded merely as diligent and conscientious in conformity. In other words, when boys achieve they are thought to have "real" creativity, whereas achievement in girls was considered to be their cultural job. Thus the girl knows what is expected of her and she is not going to be given the same recognition as a boy (Chafetz , 1978).

Crandall et al. (1962) found that the more intelligent a boy was, the better he expected to perform, whereas the more intelligent a girl was, the less well she expected to perform. Girls tended to attribute their accomplishments to luck, and boys more often took credit for achievements. Furthermore, boys and girls who did equally well in a task both agreed that boys had better ideas (Torrance, 1963).

One of the major tasks of early education is the mastery of the written word. The impact of the images portrayed in books is very important on children. Research indicates that school texts included more pictures of males than females (U'Ren, 1971), that boys were presented as active and adventurous and girls as helpless, passive, or unproductive (Weitzman et al., 1972). The majority of the titles featured males, and girls were twice as likely as boys to be seen in subordinate roles in the home (Stockard & Johnson, 1980).

Brofenbrenner (1970) estimated that preschoolers spend more time watching TV than any other activity. This influence continues into childhood with its implicit messages to children about appropriate gender behavior. Women are usually seen in one of three ways: 1) sexual context, 2) romantic context, and 3) in family roles. Men are seen as powerful, intelligent, and rational (Tedesco, 1974). Females were found to defer to males and were usually seen as being punished for deviating from acceptable modes of female behavior, and males were seen as active and constructive (Sternglanz & Serbin, 1974).

Gender socialization during adolescence. As the child matures and enters adolescence, the educational process continues in junior high and high school. Erikson (1968) believed that a major task during this period is the establishment of a sense of identity, and he observed that it

is more difficult for girls than boys to achieve what he calls positive identity in Western society.

During this adolescent phase, the difference in sex roles is further reinforced. It has been noted that for young girls there is a declining interest in the traditional male-dominated area of study, and an increase in the areas that tend to foster social skills (Bardwick & Douvan, 1971; Davidson & Gordon, 1979). By adolescence males are urged to achieve in school and to plan for future career goals, and girls are discouraged in academic achievement (Horner, 1972; Shaw & McCuen, 1971). During this time, girls try to become more attractive to boys (Laws, 1976), and males tend to be especially restrictive in what they expect of girls (Meixel, 1976). Young women also tend to lower career goals and aspirations as they approach womanhood (Schwenn, 1970).

Scanzoni & Fox (1980) suggested that the perception encouraged during these years is that girls should develop skills which would contribute to preparation for marriage. They also suggested that adolescent girls may feel that if they pursue male-dominated subjects that young men may consider them unsuitable as potential mates. Bem & Bem (1971) suggested that this sex-role socialization process contributes to a nonconscious ideology that has trained women to "know their place" within society.

Gender role maintenance in adulthood. Gagnon & Simon (1974) saw this transition point from non-adult to adult as a

critical time in the crystalization of the individual's gender identity. They suggested that both males and females follow their own sexual scripts at this point. These scripts and labels elicit and form what becomes human sexuality in the adult. Once this consciousness of sexuality is attained, then it in turn gives meaning to both gender roles and sexual behavior for the adult. Tischler et al. (1983) concur, noting that it is the cumulation of earlier sex/gender socialization that becomes most evident during young adulthood. It is at this stage that the results of sex/gender role socialization become significant to an individual. Sexual maturity and the sexual identity that males and females acquire interact with previous socialization to give the concept of masculinity and femininity more than a "play acting" character (see Gagnon & Simon, 1973).

Males and females come to see one another not only as biologically different, but as differing in psychological and emotional elements as well. As noted in the previous section, young boys are encouraged to exhibit masculine or socially desirable traits. Hence, it would be no surprise that similar experiences are expected in the male and female adult.

Spence et al. (1975) noted that norms of femininity stress passivity, dependency, and social orientation, while masculine norms stress aggressiveness and independence. Such

early sex-role exposure in the child and consistent reinforcement into adulthood tend to influence the self-perception of males and females regarding their own concepts of appropriate ideals of femininity and masculinity. For example, Goldberg (1968) noted that female college students placed more positive emphasis on male academics than on female academics. McKee & Sheriffs (1957) noted that males and females believe that males were superior in more ways than females. Sherman (1971) found that between 2.5 and 4 percent of males could remember wanting to be females, whereas 20 to 30 percent of females could remember wanting to be males.

This duality of norms, i.e., ideals for males and ideals for females, may cause role conflict in an individual. Frieze et al. (1978) suggested that the woman who deviates from the norm by entering the work force is faced not only with the same strain and stress felt by males on the job, but she may also face social criticism for what is perceived to be inappropriate gender role behavior.

Sherif (1982) referred to the double bind when she discussed the impact of reference groups on gender and identity. She suggested that while a female cannot become a male, she might well adopt a male or males as her reference group in terms of goals or aspirations. In fact, it is suggested that females are encouraged to do this vicariously vis a vis the socialization process; e.g., father knows best

(Sherif, 1982). This illustrates that not only are masculine and feminine traits different in kind, but they tend to be valued differently by society. Masculine traits are usually rated higher in that they are associated with adult qualities, and feminine traits are devalued and seen as more childlike (Broom et al., 1981). This leads Broom et al. (1981) to observe that some of these roles have built-in contradictions, i.e., elements that are not compatible with one another.

The different values placed on masculine and feminine traits led Komarovsky (1946) to observe that intelligent girls were often forced to play at being less intelligent or "dumb" in order to fulfill expected roles. This conflict can effect adult gender expectations and influence differing perceptions in what is acceptable "out there" in the real world and what is expected in the home. As Komarovsky (1973) noted, males believed that females in general should be allowed to participate in any way they choose in society, but these same males indicated that they wanted their own wives at home.

These types of observations led Broverman (1972) to contend that the concept of "mature femininity" was a contradiction in terms. The very notion places women in what was described as a double bind: adult behavior standards tend to be masculine; it would therefore be impossible for a female to be both adult and feminine at the same time.

Current Schema Theories of Sex-Typing and Gender Roles

Recently there has been a flurry of interest in the schematic processing of information, and its implications for gender/sex role acquisition, sex-typing, and stereotyping in adults and children (Martin & Halverson, 1981; Bem, 1979, 1981, 1982; Markus et al. 1982).

The concept of schema dates back to the works of Piaget (1926), and Bartlett (1932). Piaget had used the term to refer to the various stages of cognitive maturation, and discussed the process in terms of an individual's future references based on past schema development and experience (1951).

There has been a resurgence of interest in the concept of schema and schematic processing of information. This is especially true regarding the use of the concept in the social context (for extensive review see Taylor & Crocker, 1979).

Sherif (1982) viewed the renewed interest in schema as positive (Neisser, 1976), especially with regard to the current interest in self-reference cited in such works as Bem (1981, 1982) and Markus (1980, 1982). Sherif (1982) saw gender as a scheme for the social categorization of individuals, and noted that every society has gender schemas. She referred to the schema concept in terms of what she described as a "self-system". This "self-system" is seen as a constellation of attitudinal schemas formed during the

individual's development through the process of interaction with both physical and social realities. Sherif (1982) saw the addition of the "attitudinal" dimension as critical to a notion of self-system, suggesting that attitudinal schemas emphasize the ideal that the self is cognitive, motivational, and affective as a system.

Schematic processing model for sex-typing and stereotyping in children. Martin & Halverson (1981) have suggested a schematic model for sex typing and stereotyping in children. They pointed out that stereotyping has been considered in the past to be an undesirable phenomenon of thinking. Opinions have seen stereotyping as dysfunctional (Lippman,1922), as the result of inferior judgement (Fishman, 1956), as pathological (McCauley et al., 1980) and as prejudicial (Vinacke,1957). Martin & Halverson (1981) suggested that in recent years the concept of stereotyping has evolved, and the phenomenon is now viewed as a normal cognitive process.

Martin & Halverson (1981) have elaborated on the notion of schematic processing offered by Taylor & Crocker (1979) and have offered a specific model of sex stereotying in young children. They suggested that information processing is the scanning of the environment, attending to selected items and storing information for retrieval at a later date and for the use of this information as the basis for action (Taylor & Crocker, 1979). Martin & Halverson (1981) also viewed

schemas as naive theories that guide information processing by structuring or formatting experience. They suggested that two forms of schemata are involved in sex typing. The first is referred to as "in-group-out-group" schema. This consists of all the basic and general information that children use to label behavior, traits, etc. as being either for males or for females. The second is an "own sex" schema which is thought to be more detailed and specific with regard to the information retained as relevant to characterize one's own sex.

Martin & Halverson (1981) contended that the notion of schema is an important one for understanding how information is organized in the experience base of an individual. Without appropriate schemas, it was suggested some information will or may never be encoded, and thus such information, when missing, will not allow individuals to make inferences from the unfamiliar to the familiar.

Current schema theories. Bem (1981, 1982, 1983) has proposed a model called Gender Schema Theory. This theory proposed that the phenomenon of sex typing comes, in part, from gender-based schematic processing. This takes the form of a generalized readiness to perceive and process information on the basis of what Bem called sex-linked associations (1981). Bem viewed schema as a cognitive structure which is composed of a network of associations that organizes and guides individual perception (1981).

Bem (1983) stated that this theory is like the cognitive-developmental approach in that it proposes that sex typing is mediated by the cognitive processing of the child, but it is different in that it further proposes that schematic processing is itself derived from the social communities' own sex-differentiated practices. Thus to Bem the child learns to organize and encode incoming information in terms of an evolving gender schema. Bem (1981) noted the contributions of Kagan (1964) and Kohlberg (1966) when she discussed the fact that children learn both to evaluate their adequacy and to match preferences, attitudes, and behaviors against prototypes. Thus the child uses gender schema as a guide to behavior. To Bem, the use of gender schema serves as a guide which holds one's self-esteem hostage to sex differentiation. This provides an internal motivation that urges individuals to regulate their behavior along normative definitions of maleness or femaleness within the culture. It is this process that explains the phenomenon as sex typing (Bem, 1981).

Bem (1981) suggested that there are three types of individuals: 1) those who possess masculine sex-type schemas 2) those who possess feminine sex-type schemas and 3) those who are aschematic, i.e., who do not see themselves as being either masculine or feminine in regard to gender schema. This third group, the aschematics, can be seen as being either undifferentiated, i.e., possessing low

salience in regard to both masculine and feminine traits or androgynous, possessing high salience to both masculine and feminine traits.

Markus et al. (1982) have offered another point of view in regard to gender development. This view emphasizes self-schema and its impact on gender development. To these authors self-schemas are believed to be summaries or constructions of past behavior that allow persons to understand social experience and organize such experience about themselves. They cited the works of various authors (Markus, 1977; Rogers, Kuiper, & Kirker, 1977) as supportive of the notion that the self-schema concept views differential processing of information about the self. This may be manifested and viewed in differing behavioral domains seen in terms of differences in self-schema (Markus et al., 1982).

To Markus et al. (1982) schema, as a concept, implies that a structure of knowledge (or framework) is interactive in terms of being an interpretive force during information processing. They went on to suggest that in terms of gender, an important part of the self-schema notion is that a gender schema is one that is likely to be highly available and centrally involved in the processing of information, which may be about gender in general, or about gender as it relates to the self in particular.

Markus et al. (1982) referred to studies they conducted which suggested that systematic differences were noted in the cognitive performance among groups of persons. They

identified four main groups of persons in their study: 1) masculine schematics, 2) feminine schematics, 3) high androgynous persons, and 4) low androgynous persons, also referred to in the literature as 'undifferentiated' sex types (see Spence et al. 1975; Bem 1977).

To Markus et al. (1982), the schema concept allows a number of possible interpretations based on the processing of gender-relevant information among the four groups. Thus to persons who are masculine or feminine schematics, the information that is most important is the information relevant to their schematic type. For example, a masculine schematic will attend to masculine stimuli more than to feminine stimuli. A high androgynous person, the authors suggested, would be able to attend to both masculine and feminine stimuli, and their self-concept would reflect the fact that they have not differentiated themselves with regard to gender and attribute both masculine and feminine concepts to their self-image. Markus et al. (1982) suggested that the low androgynous (undifferentiated) persons do not adhere or relate to either masculine or feminine schema in a strong manner. Thus, they are not seen as having a well-developed or elaborate schema relevant to gender and are thus thought of as being aschematic with regard to gender (Markus et al., 1982).

Thus Markus et al. (1982) argued that masculine schematics have a self-schema relevant to masculinity but

lack accurate information about feminine schema, and that feminine schmatics have a self schema relevant to femininity, but lack accurate information about masculinity. They further suggested that whereas, high androgynous persons appear to have incorporated masculinity and femininity schemas into their self-concepts, low androgynous (undifferentiated) persons appear to be aschematic with regard to gender. Markus et al. (1982) suggested that one finds masculine schematics, feminine schematics, multi-schematics, and aschematics with regard to gender-related information processing.

Measurement of Gender Schema

In recent years, conceptual arguments for the redefinition of the concepts of "masculine" and "feminine" have appeared in the literature. The premise underlying these arguments is that masculinity and femininity may not be bipolar as has been traditionally argued. For example, if a trait is seen as masculine, it cannot therefore also be feminine. An alternative view suggested that some individuals might in fact be androgynous; i.e., possess both masculine and feminine characteristics (Bem 1974, 1975; Constantinople, 1973; Spence & Helmreich, 1978; Heilbrun, 1973).

Bem (1974, 1975) has been one of the most outspoken supporters of the concept of androgyny and has developed the Bem Sex Role Inventory (BSRI) as an instrument to measure

both traditional and androgynous sex types (1971). Bem (1979) further elaborated her position and discussed the theoretical rationale of her views, asserting that in the case of sex roles two idealized groups of individuals are to be found, i.e., those individuals who are "sex-typed" and who restrict their behavior in accordance with cultural definitions of sex-appropriate behavior, and certain androgynous individuals who do not. Bem (1979) contended that the Bem Sex Role Inventory (1971) was in fact developed to capture these differing groups of individuals and thus allow confirmation her premises.

Both Bem (1981) and Markus et al. (1982) used the Bem Sex Role Inventory to acquire information about "me" and "non-me" judgements regarding the dimensions of gender-related traits. The Bem Sex Role Inventory (BSRI) was also used by both authors to identify categories of persons who were either masculine, feminine, androgynous, or undifferentiated with regard to gender traits. As previously noted, this instrument has been widely used since its introduction (1971) to determine sex types in subjects. The instrument itself consists of 20 masculine traits, 20 feminine traits, and 20 gender-neutral traits as measured on a Likert scale in self-report format. Although there have been numerous critiques of the instrument (Locksley & Colten, 1979; Myers & Sugar, 1979; Pedhazur & Tetenbaum,1979; Myers & Gonda, 1982), Bem contended that the instrument is useful as

an identifier of sex-typed individuals and that they (sex-typed persons) might just as easily be identified by other similar instruments which measure one's self-concept or behavior as it matches cultural definitions of masculinity or femininity (Bem, 1981). It should be noted that this instrument was used by both Bem (1981) and Markus et al. (1982) as the mechanism for determining sex-typed persons for their schematic research.

CHAPTER III

METHODOLOGY

Subjects

A total of 300 college students participated in this study. Of the subjects, 160 (53%) were female, and 140 (47%) were male. The students were attending a small liberal arts college in the piedmont area of North Carolina and ranged in age from 18 to 24 years. Of the respondents, 89% were white, and 11% were black. The respondents were students attending social science classes; however, a wide range of majors was reported. The largest concentration majored in Business (34%), followed by Education (21.3%), and Human Services (17.7).

The demographic and socioeconomic status data on students' fathers indicated that 25% had completed high school, 13% had some college, 30% had completed college and 21% had graduate educations. Thus, a total of 51% of fathers had college educations. For students' mothers, the responses indicated that 33% had completed high school, 32% had some college, 24% had completed college, and 6% had graduate educations; thus, a total of 30% of the mothers had college educations. Students reported that 90% of their fathers were employed and 65.3% of their mothers were employed. Students

described 72.3% of their fathers and 33.7% of their employed mothers as professional or managerial; 28% reported their mothers' occupations as housewife. This combined socioeconomic and demographic information indicates that the sample is predominantly white (89%) and middle to upper-middle class.

Instrument

A modified Bem Sex Role Inventory (BSRI) was used to assess sex role orientation of the respondents (Bem, 1974). The inventory consists of 60 personality characteristics (see appendix A). Of these, 20 are masculine items, 20 are feminine items, and 20 are considered neutral, socially desirable items. The subjects were instructed to indicate on a 7-point Likert scale how well each of the items on the scale would best describe themselves:

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

On the original BSRI, a box was provided after each item for the respondents to record their responses. For the present study two additional columns were added beside each item (see appendix A). These other columns were for perceived scores of members of ones own sex and perceived

scores for members of the opposite sex. By summing the SELF scores over the masculine and feminine items separately, a subject score was obtained. Sex-type classification was based on the median-split method (Spence & Helmreich, 1979). Subjects who scored high on masculine items (above the median) and low (below the median) on feminine items were classified masculine sex-typed. Those who scored high on feminine items and low on masculine items were classified feminine sex-typed. Those who scored high on masculine and feminine (above the median on both scales) were classified as androgynous sex-typed. And those who scored low in masculine and feminine (below the median on both scales) were classified as undifferentiated.

Procedure

The demographic survey and modified BSRI was administered to students in their classrooms during regular class meetings. The investigator read the introductory and consent statements, and asked students who wished to participate to sign the consent form (see appendix B). The subjects were instructed to fill out a two-page demographic survey and then to await further instructions. Once the demographic phase was completed, the subjects were asked to respond on a 7-point Likert scale to the 60 items on the BSRI. They were instructed to fill out ONLY column A in response to the items on the scale. Their instructions were as follows:

On this page are a number of items. In column A you are requested to fill in the response which you believe BEST describes yourself. When you finish column A please wait for further instructions.

When the subjects had finished column A they were instructed to look at the traits again and fill out column B, and their instructions were as follows:

Please look at the traits again. In column B you are requested to fill out the items BEST describing members of your OWN sex. For males best describe other males, for females best describe other females.

When the subjects had finished column B they were instructed to look at the traits again and fill out column C, their instructions were as follows:

Please look at the traits again. In column C you are requested to fill out the items BEST describing members of the OPPOSITE sex. For males best describe females, for females best describe males.

The subjects were then statistically divided into groups based on sex, having filled out three (3) sets of trait responses. Thus the interactive nature of their own responses could be measured against how they perceived their responses comparedt o others of the same sex and opposite sex.

The subjects are:

1. Group A (males)
   - 1-A. Responses for self.
   - 1-B Perceived responses for members of the same sex.
   - 1-C. Perceived responses for members of the opposite sex.

2. Group B (females)
   - 2-A. Responses for self.
   - 2-B. Perceived responses for members of the same sex.
   - 2-C. Perceived responses for members of the opposite sex.

Table 1 reflects the sex-type breakdown of subjects. The mean score for subjects was 202.40 for the total population on both masculine and feminine items. This equates to a 5.06 on the 7-point scale, which corresponds to a mean response of "often" on the BSRI for males and females on the masculine and feminine items.

Table 1

Subject Mean Score by Sex-Type and Sex on BSRI Masculine and Feminine Items

Sex-Type			Masculine Items		Feminine Items	
	%	N	M	SD	M	SD
			Females (n=160)			
Masculine	18%	26	113.5	8.8	92.9	5.9
Feminine	49%	79	88.6	10.3	111.7	6.4
Androgynous	19%	33	111.6	7.2	111.7	5.1
Undiff.	14%	22	85.1	9.2	93.8	7.2
			Males (n=140)			
Masculine	46%	62	114.2	8.8	89.1	9.8
Feminine	11%	15	94.3	5.7	105.9	3.2
Androgynous	19%	29	115.3	7.7	107.9	5.3
Undiff.	24%	34	93.8	5.4	89.1	7.8

Note: Max score on BSRI
Mas = 140
Fem = 140

CHAPTER IV

RESULTS

The purpose of this investigation was to examine the comparability of gender-related perceptions of males and females within each of the sex-type groups (i.e., Masculine, Feminine, Androgynous, and Undifferentiated) which were examined by Bem (1981) and Markus et al. (1982). This objective was pursued by comparing male and female subjects' self-ratings on the BSRI with ratings for same-sex and opposite-sex groups. Predicting that subjects would show self ratings more similar to members of their own sex than to those given to members of the opposite sex presumes a stereotyped awareness of gender-related differences between the sexes. Accordingly, the first hypothesis was offered as follows:

Hypothesis 1. Males and females in all sex-type categories differentiate between ratings given to same-sex and opposite-sex groups, thus indicating a perceptual awareness of stereotypic (schematic) gender differences between the biological sexes.

The first means of analysis of this hypothesis focused on differences between same-sex and opposite-sex ratings of the entire sample of males (n=140) and females (n=160). As can be seen from Figures 1 and 2, and Table 2, both sexes rated males higher than females on masculine items, and both sexes rated females higher than males on feminine items.

FIGURE 1

Mean Ratings of Self, Same-Sex, and Opposite-Sex Gender Groups for Male Population (N=140)

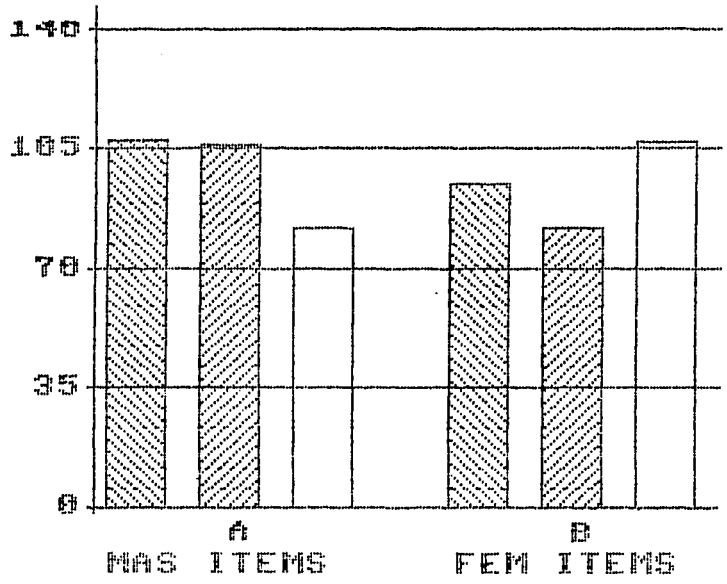


FIGURE 2

Mean Ratings of Self, Same-Sex, and Opposite-Sex Gender Groups for Female Population (N=160)

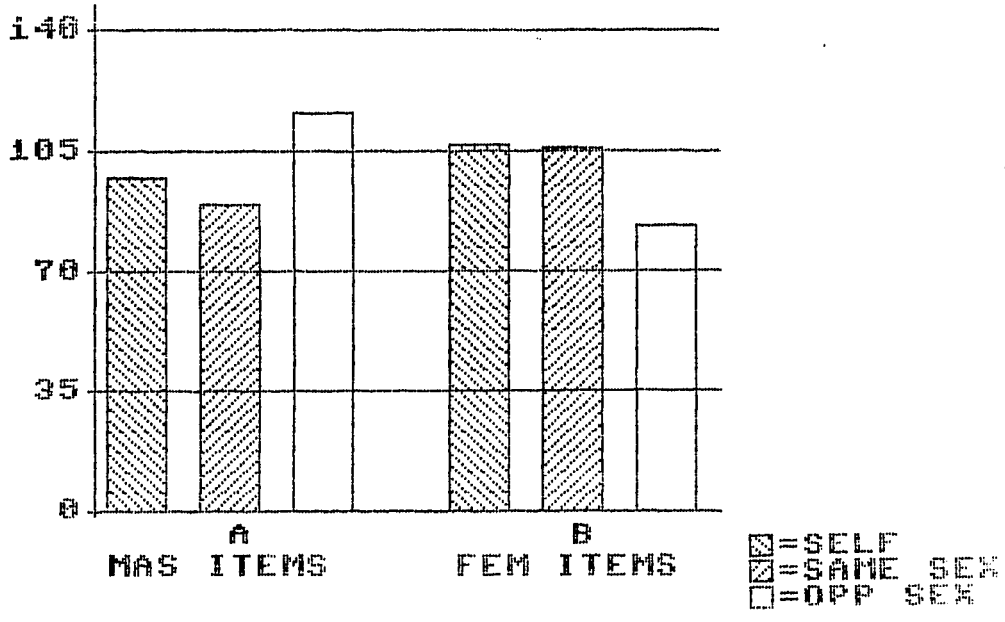


TABLE 2

Male and Female Ratings of Same-Sex and Opposite-Sex Gender Groups for Masculine and Feminine Items on the BSRI

Items	M	SD	t	2-tailed P
MALES (N=140)				
Masculine				
Same Sex	106	12.6	19.59	<.001
Opp Sex	81.5	11.8		
Feminine				
Same Sex	82.3	10.8	-20.88	<.001
Opp Sex	106.89	11.9		
FEMALES (N=160)				
Masculine				
Same Sex	89.5	12.2	-24.42	<.001
Opp Sex	115.6	10.7		
Feminine				
Same Sex	105.5	9.6	21.92	<.001
Opp Sex	83.2	9.8		

Note. Maximum score Mas item = 140.
Maximum score Fem item = 140.

These differences in mean ratings were statistically reliable for both males and females ($p. < .001$).

A second analysis was conducted to examine differences between same-sex versus opposite-sex ratings of males and females within each of the four sex-type groups separately. Males and females in all sex-type classifications rated males higher than females on masculine items and females higher than males on feminine items. Tables 3 and 4 show that these ratings were statistically reliable ($p. < .001$) in all cases. These results support hypothesis 1, indicating that males and females share a stereotyped perceptual awareness of differences between the gender-related characteristics of the sexes.

A second step taken to examine the comparability of gender schemas among biological males and females within sex-typed groups was to investigate differences and similarities between subjects' self-ratings and those they assigned to same-sex and opposite-sex groups. As indicated earlier, both Bem (1981) and Markus et al. (1982) have presumed that biological males and females within each of the sex-typed categories are psychologically equivalent with regard to their gender schemas. Were this premise correct, regardless of the stereotyped knowledge that respondents have about same-sex and opposite-sex individuals, their self-rating scores should not significantly differ from ratings of opposite-sex individuals, nor should self-ratings

TABLE 3

Male Ratings of Same-Sex and Opposite-Sex Gender Groups in each Sex-type Classification

Items	M	SD	t	df	2-tailed P
Masculine Sex-Type (N=62)					
Masculine					
Same Sex	105.3	13.5	11.84	61	<.001
Opp Sex	81.2	11.3			
Feminine					
Same Sex	81.7	10.1	-14.29	60	<.001
Opp Sex	106.78	11.8			
Feminine Sex-Type (N=15)					
Masculine					
Same Sex	108.6	12.8	8.75	14	<.001
Opp Sex	82.3	11.1			
Feminine					
Same Sex	81.4	9.04	-8.06	14	<.001
Opp Sex	108.2	11.6			
Androgynous Sex-Type (N=29)					
Masculine					
Same Sex	111.1	10.6	8.39	28	<.001
Opp Sex	88.3	12.2			
Feminine					
Same Sex	90.44	9.4	-8.05	28	<.001
Opp Sex	110.96	11.3			
Undifferentiated Sex-Type (N=34)					
Masculine					
Same Sex	101.85	11.3	10.63	33	<.001
Opp Sex	75.79	9.9			
Feminine					
Same Sex	76.7	9.2	-9.37	33	<.001
Opp Sex	103.05	11.8			

Note. Maximum score Mas item = 140.
Maximum score Fem item = 140.

TABLE 4

Female Ratings of Same-Sex and Opposite-Sex Gender Groups in each Sex-type Classification

Items	M	SD	t	2-tailed P
Masculine Sex-Type (N=26)				
Masculine				
Same Sex	88.9	14.4	-7.03	<.001
Opp Sex	112.69	10.96		
Feminine				
Same Sex	104.5	7.9	8.74	<.001
Opp Sex	81.7	7.6		
Feminine Sex-Type (N=79)				
Masculine				
Same Sex	89.9	10.6	-18.64	<.001
Opp Sex	115.6	10.2		
Feminine				
Same Sex	105.9	9.2	15.85	<.001
Opp Sex	83.9	9.9		
Androgynous Sex-Type (N=33)				
Masculine				
Same Sex	94.8	12.2	-11.80	<.001
Opp Sex	121.3	9.7		
Feminine				
Same Sex	109.5	8.3	9.34	<.001
Opp Sex	86.8	10.02		
Undifferentiated Sex-Type (N=22)				
Masculine				
Same Sex	80.59	9.9	-10.01	<.001
Opp Sex	110.8	10.2		
Feminine				
Same Sex	99.6	11.8	7.75	<.001
Opp Sex	77.2	8.7		

Note. Maximum score Mas item = 140.
Maximum score Fem item = 140.

be more similar to same-sex than to opposite-sex individuals. Hypotheses 2 and 3 were put forth to test these assumptions. The second hypothesis was stated as follows:

Hypothesis 2. Males and females in all sex-type categories perceive gender-related differences between themselves and members of the opposite sex as reflected in reliable differences between self-ratings and opposite-sex ratings on the BSRI.

As can be seen in table 5 and figures 1 and 2, the present results support hypothesis 2. Males and females alike exhibited significant differences between self-ratings and ratings of the opposite sex on both masculine and feminine items. Table 5 shows these differences to be statistically reliable ($p < .001$) for all cases.

Additional analyses were conducted to examine differences in the self vs opposite-sex ratings of biological males and females in each of the sex-typed groups, separately. Table 6 showes these results to be mixed. Males in all sex-typed groups exhibited reliable differences ($p < .01$) between self-ratings and ratings given to females on masculine items. Moreover, females in all sex-typed groups reported reliable differences ($p < .01$) between self-ratings and ratings given to males on feminine items. These findings argue against the universal premise that males and females are psychologically equivalent. However, there are several findings that would appear to be exceptions to hypothesis 2; namely, males in the Feminine and Androgynous sex-typed groups exhibited no differences between self-ratings and

TABLE 5

Male and Female Self-Ratings Compared with their Ratings for Same-Sex and Opposite-Sex Gender Groups

Items	M	SD	t	2-tailed P
MALES (N=140)				
Masculine				
SELF	107.3	12.4		
w/Same Sex	106	12.6	0.93	.353
w/Opp Sex	81.5	11.8	21.10	<.001
Feminine				
SELF	94.8	11.6		
w/Same Sex	82.3	10.8	12.74	<.001
w/Opp Sex	106.89	11.9	-10.65	<.001
FEMALES (N=160)				
Masculine				
SELF	96.9	15.1		
w/Same Sex	89.5	12.2	5.46	<.001
w/Opp Sex	115.6	10.7	-13.39	<.001
Feminine				
SELF	106.2	10.4		
w/Same Sex	105.5	9.6	.67	.501
w/Opp Sex	83.2	9.8	23.41	<.001

Note. Maximum score Mas item = 140.
Maximum score Fem item = 140.

TABLE 6

Male and Female Self Ratings Compared with Opposite-Sex Ratings by Sex-type Classification

Items	M	SD	t	P
Masculine sex-type Males (N=62)				
Masculine				
SELF	114.2	8.8		
w/Opp Sex	81.2	11.3	20.06	<.001
Feminine				
SELF	89.1	9.8		
w/Opp Sex	106.89	11.8	-11.82	<.001
Masculine sex-type Females (N=26)				
Masculine				
SELF	113.5	7.96		
w/Opp Sex	112.7	10.96	.26	.796
Feminine				
SELF	92.9	5.9		
w/Opp Sex	81.7	7.6	6.94	<.001
Feminine sex-type Males (N=15)				
Masculine				
SELF	94.3	5.7		
w/Opp Sex	82.3	11.1	4.30	.001
Feminine				
SELF	105.9	3.2		
w/Opp Sex	108.2	11.6	0.76	.457
Feminine sex-type Females (N=79)				
Masculine				
SELF	88.6	10.3		
w/Opp Sex	115.9	10.2	-15.93	<.001
Feminine				
SELF	111.7	6.4		
w/Opp Sex	83.9	9.9	20.22	<.001

TABLE 6 (cont'd)

Male and Female Self Ratings Compared with Opposite-Sex Ratings by Sex-type Classification

Items	M	SD	t	P
Androgynous sex-type Males (N=29)				
Masculine				
SELF	115.3	7.7		
w/Opp Sex	88.3	12.2	11.49	.001
Feminine				
SELF	107.9	5.3		
w/Opp Sex	110.9	11.2	-1.36	.184
Androgynous sex-type Females (N=33)				
Masculine				
SELF	111.6	7.2		
w/Opp Sex	121.3	9.8	-4.85	<.001
Feminine				
SELF	111.7	5.1		
w/Opp Sex	86.8	10.0	15.04	<.001
Undifferentiated sex-type Males (N=34)				
Masculine				
SELF	93.8	5.4		
w/Opp Sex	75.9	9.9	8.82	<.001
Feminine				
SELF	89.1	7.8		
w/Opp Sex	103.1	11.8	-6.92	<.001
Undifferentiated sex-type Females (N=22)				
Masculine				
SELF	85.1	9.2		
w/Opp Sex	110.8	10.2	-10.91	<001
Feminine				
SELF	93.8	7.2		
w/Opp Sex	77.2	8.7	8.43	<.001

ratings of the opposite-sex on feminine items, and females in the Masculine sex-typed group exhibited no differences between self-ratings and opposite-sex ratings on masculine items.

The above exceptions suggest the possibility that in some sex-type groups, biological males and females may have gender schemas that are psychologically equivalent. However, to assume that equivalent scores indicate that males or females view themselves equally similar to the opposite-sex group on the opposite-sex item scale of the BSRI may not be accurate. The BSRI allows for a check of this question by asking respondents to reply to the item "masculine" and the item "feminine" on the 7-point response scale (see appendix A), thereby soliciting perceptions of their own masculinity and feminity. Figures 3 and 4 show that males and females, as a group, clearly display their "masculine" or "feminine" response to be sex-linked and gender consistent, regardless of sex-type group membership. Figures 3 and 4 indicate that when rating themselves as "masculine" or "feminine", males and females are much more similar to their same-sex reference group, than to the opposite-sex group. Thus comparability of score (as cited above) does not appear to imply that these males or females view themselves as any more similar to opposite-sex group than to their same-sex group on the dimension of masculinity or femininity.

FIGURE 3

Mean Ratings of item "Masculine" and item "Feminine" for Self, Same-Sex, and Opposite-Sex Gender Groups for Male Population (N=140)

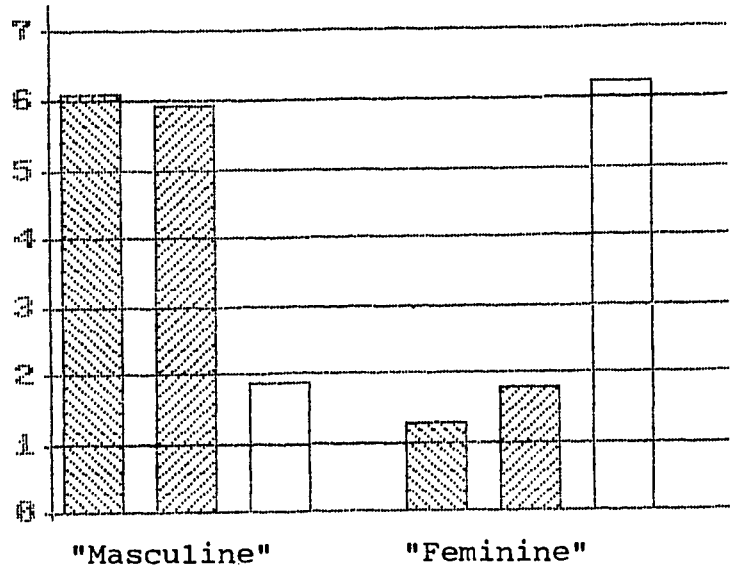
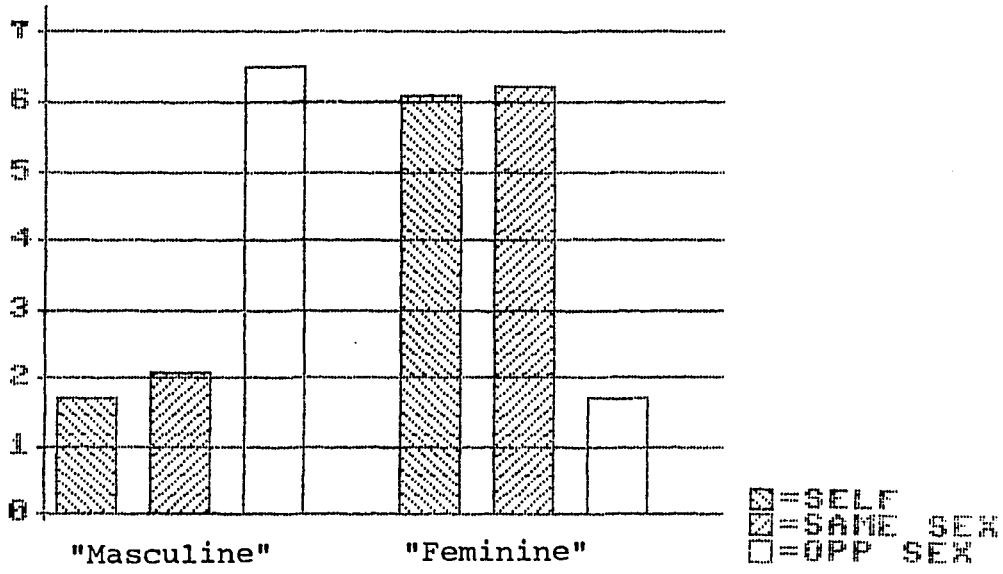


FIGURE 4

Mean Ratings of item "Masculine" and item "Feminine" for, Self, Same-Sex, and Opposite-Sex Gender Groups for Female Population (N=160)



A comparability hypothesis suggests that self-ratings of males and females within sex-type groups should be no more similar to same-sex than to opposite-sex ratings. The third hypothesis tested in this study is related to the second and is stated as follows:

Hypothesis 3. Males and females in all sex-type categories perceive the gender-related characteristics of their self-ratings to be more similar to those of their own sex than to those of members of the opposite sex.

To examine the similarity of subjects' self and same-sex and self and opposite-sex ratings, difference scores were computed between self and same-sex and between self and opposite-sex ratings for subjects within each of the four sex-typed groups. The results of these analyses were also mixed. Table 7 shows that males in the Masculine, Androgynous, and Undifferentiated sex-type groups, on masculine items, exhibited self-ratings more similar to same-sex than to opposite-sex ratings. However, Feminine sex-type group males displayed ratings reliably closer ($p < .01$) to opposite sex than to same sex. Also, males in the Masculine and Undifferentiated sex-type groups, on feminine items, exhibited ratings more similar to same-sex ratings, whereas males in the Feminine and Androgynous sex-type groups were more similar to opposite-sex ratings. These differences were statistically reliable (p. 001) in all cases.

Females in the Feminine and Undifferentiated sex-type groups reported ratings more similar to same-sex than to

TABLE 7

Difference Scores of Self vs Same-Sex, and Self vs Opposite-Sex Ratings for Males and Females by Sex-type Group

Items	M Dif Score	M (Diff)	df	t	P
Masculine Sex-Type (Males)					
Masculine					
Self-Same sex	8.9	-24.11	61	-11.84	<.001
Self-Opp sex	33.02				
Feminine					
Self-Same sex	7.4	25.5	60	14.29	<.001
Self-Opp sex	-17.68				
Masculine Sex-Type (Females)					
Masculine					
Self-Same sex	24.57	23.76	25	7.03	<.001
Self-Opp sex	0.81				
Feminine					
Self-Same sex	-11.54	-22.73	25	-8.74	<.001
Self-Opp sex	11.19				
Feminine Sex-Type (Males)					
Masculine					
Self-Same sex	-14.4	-26.4	14	-8.75	<.001
Self-Opp sex	12.0				
Feminine					
Self-Same sex	24.5	26.8	14	8.06	<.001
Self-Opp sex	-2.3				
Feminine Sex-Type (Females)					
Masculine					
Self-Same sex	-1.35	25.71	78	18.64	<.001
Self-Opp sex	-27.03				
Feminine					
Self-Same sex	5.8	21.99	78	-15.85	<.001
Self-Opp sex	27.79				

TABLE 7 (cont'd)

Difference Scores of Self vs Same-sex, and Self vs Opposite-Sex Ratings for Males and Females by Sex-Type Group

Items	M Dif Score	M (Diff)	df	t	P
Androgynous Sex-Type (Males)					
Masculine					
Self-Same sex	4.17	-22.8	28	-8.39	<.001
Self-Opp sex	26.97				
Feminine					
Self-Same sex	17.48	20.52	28	9.81	<.001
Self-Opp sex	-3.04				
Androgynous Sex-Type (Females)					
Masculine					
Self-Same sex	16.8	26.5	32	11.8	<.001
Self-Opp sex	-9.8				
Feminine					
Self-Same sex	2.15	-22.66	32	-9.34	<.001
Self-Opp sex	24.8				
Undifferentiated Sex-Type (Males)					
Masculine					
Self-Same sex	-8.1	-26.1	33	-10.63	<.001
Self-Opp sex	17.97				
Feminine					
Self-Same sex	12.32	26.32	33	9.37	<.001
Self-Opp sex	-14.0				
Undifferentiated Sex-Type (Females)					
Masculine					
Self-Same sex	4.5	30.18	21	10.01	<.001
Self-Opp sex	-25.73				
Feminine					
Self-Same sex	-5.77	-22.4	21	-7.75	<.001
Self-Opp sex	16.64				

opposite-sex ratings for masculine items, whereas Females in sex-type groups Masculine and Androgynous displayed ratings more similar to opposite-sex ratings. These differences were statistically reliable ($p.<001$) for all cases. Females in the Feminine, Androgynous, and Undifferentiated sex-type groups reported ratings more similar to same-sex than to opposite-sex ratings on feminine items, whereas self-ratings of females in the Masculine sex-type group were about equally similar to both same- and opposite-sex ratings. The differences cited were statistically reliable ($p.<001$) in all cases.

To clarify further the nature of the reported similarities and differences between self and same-sex, and self and opposite-sex ratings, Wilcoxon analyses was conducted. Table 8 showes that reliable majorities of males in all sex-type groups rated females lower than self on masculine items. For feminine items, males in all but the Feminine sex-type group, rated females reliably higher than self. The noted differences were statistically reliable (p. 001). Moreover, females in all but the Masculine sex-type group rated males reliably higher than self on masculine items, and females in all sex-typed groups rated males reliably lower than self on feminine items. All of these differences were statistically reliable ($p.<001$).

The majority of the above analyses support the major hypotheses proposed for testing in the present study. Two

TABLE 8

Wilcoxon Analysis of Self vs Same-Sex, and Self vs Opposite-Sex Ratings for Males and Females by Sex-type Group

Items	% rated higher than self	% rated lower than self	% rated equal w/self
Masculine Sex-Type Males (N=62)			
Masculine			
Self w/Same Sex	24%	73%	3%
Self w/Opp Sex	0%	100%	0%
Feminine			
Self w/Same Sex	13%	87%	0%
Self w/Opp Sex	90%	8%	2%
Masculine Sex-Type Females (N=26)			
Masculine			
Self w/Same Sex	0%	96%	4%
Self w/Opp Sex	54%	42%	4%
Feminine			
Self w/Same Sex	81%	11%	8%
Self w/Opp Sex	11%	89%	0%
Feminine Sex-Type Males (N=15)			
Masculine			
Self w/Same Sex	87%	13%	0%
Self w/Opp Sex	13%	87%	0%
Feminine			
Self w/Same Sex	0%	100%	0%
Self w/Opp Sex	73%	27%	0%
Feminine Sex-Type Females (N=79)			
Masculine			
Self w/Same Sex	49%	43%	8%
Self w/Opp Sex	100%	0%	0%
Feminine			
Self w/Same Sex	27%	71%	2%
Self w/Opp Sex	1%	99%	0%

TABLE 8 (cont'd)

Wilcoxon Analysis of Self vs Same-Sex, and Self vs Opposite-Sex Ratings for Males and Females by Sex-Type Group

Items	% rated higher than self	% rated lower than self	% rated equal w/self
Androgynous Sex-Type Males (N=29)			
Masculine			
Self w/Same Sex	34%	59%	7%
Self w/Opp Sex	0%	100%	0%
Feminine			
Self w/Same Sex	3%	97%	0%
Self w/Opp Sex	66%	31%	3%
Androgynous Sex-Type Females (N=33)			
Masculine			
Self w/Same Sex	6%	88%	6%
Self w/Opp Sex	76%	21%	3%
Feminine			
Self w/Same Sex	36%	61%	3%
Self w/Opp Sex	0%	100%	0%
Undifferentiated Sex-Type Males (N=34)			
Masculine			
Self w/Same Sex	76%	24%	0%
Self w/Opp Sex	6%	91%	3%
Feminine			
Self w/Same Sex	12%	85%	3%
Self w/Opp Sex	91%	9%	0%
Undifferentiated Sex-Type Females (N=79)			
Masculine			
Self w/Same Sex	41%	59%	0%
Self w/Opp Sex	100%	0%	0%
Feminine			
Self w/Same Sex	77%	23%	0%
Self w/Opp Sex	0%	95%	5%

general conclusions can be drawn. First, with regard to hypothesis 1, biological males and females have a similar awareness of gender-related stereotypes. Second, with regard to hypotheses 2 and 3, all findings for same-sex item scales suggested that males and females are not comparable. Several findings, however, suggested apparent comparability of scores among males and females on opposite-sex ratings; e.g., Feminine and Androgynous males on feminine items, and Masculine females on masculine items. Since these results are limited to only one biological sex of any particular sex-type group, they do not consititute evidence of comparability between the sexes. Furthermore, as previously reported, the BSRI afforded the opportunity to observe directly the respondents' perceptions of their masculinity or femininity vis a vis their ratings of item "masculine" or "feminine". Males in all sex-type groups reported themselves as more masculine and less feminine than females, and females in all sex-type groups reported themselves as more feminine and less masculine than males. Thus, comparability of score did not appear to indicate differing conceptions of self as either "masculine" or "feminine". Psychological equivalence in the universal sense, therefore, has not been established.

The above-mentioned summary suggests the need for further inquiry on the question of score vs meaning; i.e., do males and females attach the same meaning to one another's gender? Only if similar scores equate to similar meanings

for males and females, can it be argued that males and females are considered to have comparable levels of masculinity or femininity as reflected by similar scores on masculine or feminine item responses. If males and females share similar definitions of "maleness" (as defined by same-sex ratings for males and opposite-sex ratings for females), then similar scores, e.g., on masculine items, can be assumed to reflect similar levels of masculinity. Likewise, if males and females share similar definitions of "femaleness" (as defined by same-sex ratings for females and opposite-sex ratings for males), then similar scores, e.g., on feminine items, can be assumed to reflect similar levels of femininity. If, however, these baseline definitions are not the same, then similar scores do not necessarily reflect similar meanings for males and females, and thus, would not reflect psychological equivalence or comparability between the sexes on qualitative grounds. To examine the question of such qualitative comparability the following hypotheses were offered for testing.

Hypothesis 4. Males and Females exhibit differential perceptions of the gender-related characteristics of maleness as reflected by same-sex and opposite-sex ratings respectively.

Hypothesis 5. Males and Females exhibit differential perceptions of the gender-related characteristics of femaleness as reflected by same-sex and opposite-sex ratings respectively.

To investigate these hypotheses, analyses of variance were performed on male and female mean ratings of "males" and

male and female mean ratings of "females" as defined by the appropriate same-sex and opposite-sex ratings. Table 9 indicates that for masculine items, the sample of males (n=140) and females (n=160) hold differing views of appropriate responses for "males". Female ratings for "males"(opposite-sex) were higher on masculine items than were male ratings for "males" (same-sex). This difference was statistically reliable ($p. < .001$). On feminine items however, males and females were in agreement for males; i.e., no significant differences were found between male and female perceptions of "male" ratings on feminine items.

Table 9 also indicates that for masculine items, males and females hold differing views of appropriate responses for females. Females rated females (same-sex) higher on masculine items than did males (opposite-sex). The perceived differences were statistically reliable ($p. < .001$). On feminine items, however, males and females were in agreement with no significant differences being noted. Tables 10, 11, 12, and 13 show a similar pattern when males and females were viewed by sex-type group. Males and females across all sex-type groups did not agree on the levels of perceived ratings for males on masculine items ($p < .05$), but did agree on ratings of males on feminine items, with no significant differences being noted. In all but the Undifferentiated group, males and females were in disagreement over ratings for females on masculine items

TABLE 9

Male and Female Perceptions of One Another as Rated on the BSRI

Male and Female Perceptions of Males as Rated on the BSRI					
Items	M	SD	F	df	P
Masculine					
Male perc of males	106	12.7	50.98	299	<.0001
Female perc of male	115.6	10.67			
Feminine					
Male perc of males	82.3	10.8	.61	298	.45
Female perc of male	83.21	9.8			

Male and Female Perceptions of Females as Rated on the BSRI					
Masculine					
Male perc of female	81.5	11.79	33.31	299	<.0001
Female perc female	89.5	12.2			
Feminine					
Male perc of female	106.89	11.85	1.22	298	.269
Female perc female	105.53	9.62			

Note. Maximum score Mas item = 140.
Maximum score Fem item = 140.

TABLE 10

SEX-TYPE MASCULINE
Male and Female Comparisons of Perceived Scores for Males and Females

Items	M	SD	F	df	P
MALE AND FEMALE PERCEPTIONS of MALES					
Masculine					
Male perc of males	105.3	13.49	6.14	87	.0152
Female perc of male	112.69	10.96			
Feminine					
Male perc of males	81.72	10.1	.0	87	.9966
Female perc of male	81.73	7.6			
MALE AND FEMALE PERCEPTIONS OF FEMALES					
Masculine					
Male perc of female	81.2	11.27	7.32	87	.0082
Female perc female	88.92	14.4			
Feminine					
Male perc of female	106.78	11.84	.837	87	.363
Female perc female	104.46	7.98			

Note. Maximum score Mas item = 140.
Maximum score Fem item = 140.

TABLE 11

SEX-TYPE FEMININE
Male and Female Comparisons of Perceived
Scores for Males and Females

Items	M	SD	F	df	P
MALE AND FEMALE PERCEPTIONS of MALES					
Masculine					
Male perc of males	108.66	12.83	5.33	93	.0231
Female perc of male	115.58	10.17			
Feminine					
Male perc of males	81.4	9.03	.79	93	.375
Female perc of male	83.87	9.99			
MALE AND FEMALE PERCEPTIONS OF FEMALES					
Masculine					
Male perc of female	82.26	11.06	6.41	93	.0130
Female perc female	88.87	10.58			
Feminine					
Male perc of female	108.2	11.57	.745	93	.39
Female perc female	105.86	9.23			

Note. Maximum score Mas item = 140.
Maximum score Fem item = 140.

TABLE 12

SEX-TYPE ANDROGYNOUS
Male and Female Comparisons of Perceived
Scores for Males and Females

Items	M	SD	F	df	P
MALE AND FEMALE PERCEPTIONS of MALES					
Masculine					
Male perc of males	111.1	10.58	15.68	61	.0002
Female perc of male	121.33	9.74			
Feminine					
Male perc of males	90.44	10.70	1.86	61	.177
Female perc of male	86.84	10.02			
MALE AND FEMALE PERCEPTIONS OF FEMALES					
Masculine					
Male perc of female	88.31	12.24	4.36	61	.04
Female perc female	94.81	12.23			
Feminine					
Male perc of female	110.96	11.23	.339	61	.563
Female perc female	109.51	8.31			

Note. Maximum score Mas item = 140.
Maximum score Fem item = 140.

TABLE 13

SEX-TYPE UNDIFFERENTIATED
Male and Female Comparisons of Perceived
Scores for Males and Females

Items	M	SD	F	df	P
MALE AND FEMALE PERCEPTIONS of MALES					
Masculine					
Male perc of males	101.85	11.34	8.92	55	.0042
Female perc of male	110.77	10.21			
Feminine					
Male perc of males	76.74	9.18	.033	55	.856
Female perc of male	77.18	8.68			
MALE AND FEMALE PERCEPTIONS OF FEMALES					
Masculine					
Male perc of female	75.94	9.55	3.16	55	.08
Female perc female	80.59	9.85			
Feminine					
Male perc of female	103.05	11.77	1.15	55	.287
Female perc female	99.59	11.81			

Note. Maximum score Mas item = 140.
Maximum score Fem item = 140.

(p .05), and males and females in all sex-type groups were in agreement on ratings of females on feminine items, with no statistical differences being noted.

The results of this investigation provide partial support for Hypotheses 4 and 5. Although male and female subjects reported high levels of agreement on where males and females should be rated on feminine items, they failed to agree on ratings of males and females on masculine items. This indicates that the sexes do not always attach the same meanings to one another's gender, and that psychological equivalence or comparability in the universal sense is not supported.

CHAPTER V

DISCUSSION

General Conclusions

As previously mentioned, the purpose of this investigation has been to address the question of comparability, i.e., psychological equivalence, of males and females within sex-typed groups. For between-group comparisons to be useful, within-group members must be considered comparable on the dimensions investigated. A comparability hypothesis suggested that males and females within a sex-type group are more similar than different to one another vis a vis group membership. Several hypotheses were offered to examine the comparability issue.

The results of the first inquiry (hypothesis 1) indicated that males and females as a total group, and in all sex-type groups, have stereotyped knowledge about how males and females should be rated on masculine and feminine items.

The second area of inquiry (hypothesis 2) concerned whether this gender-related knowledge about one's own and opposite sex placement on masculine and feminine items was used by individuals in making self-ratings. The results indicated that for males and females as a total group,

and in all of the sex-type groups, there were sex-linked perceptual differences. Males viewed females as rating lower on masculine items than themselves and females viewed males as rating lower on feminine items than themselves. Where comparability was reported, it was perceived by only one sex within a sex-type group, and only on cross-sex items; e.g., feminine items for males and masculine items for females. This comparability of scores did not, however, influence individuals' self-views of their masculinity or femininity as reported on the BSRI. When responding to item "masculine" or "feminine" on the BSRI, males in all sex-type groups reported themselves as rating high on masculine and low on feminine, and conversely, females rated themselves high on feminine and low on masculine.

The findings related to hypothesis 3 were similar and supportive of those of hypothesis 2. Males in all sex-type groups rated males as more similar to self than females on masculine items, and females in all sex-type groups rated females as more similar to self than males on feminine items. While exceptions were noted on cross-sex item scales (as with hypothesis 2), in none of the sex-type groups were the perceptions offered by males and females similar on both masculine and feminine items. Thus within group comparability of the biological sexes was not established.

The present study also examined the comparability of males and females with regard to qualitative similarity of

the meaning of masculine and feminine items. Despite the fact that males and females have stereotypic knowledge regarding gender, these results indicated that they have different perceptions of where males and females should be rated on masculine items. Females' perceived ratings of males were consistently higher on masculine items than were those of males. Furthermore, females' perceived ratings of females were also consistently higher on masculine items than were the male perception for female ratings. Equally interesting was the finding that males and females generally had high levels of agreement on where males and females should be rated on feminine items. This agreement was consistent with the findings of hypothesis 1; i.e., females were viewed by both sexes as rating higher than males on feminine items. As previously reported, these results clarify hypothesis 1; i.e., even though males and females share stereotypic knowledge of appropriate responses for males and females, it appears that this information may have different meanings for males and females. Taken together, this suggest that males and females do not attach the same meanings to one anothers' gender on masculine items, but do agree on the stereotypic differences of the sexes on feminine items.

Implications for past research

During the past decade a great deal of research has been generated using the BSRI (1974) and similar instruments. The

sex-type group modality has been popular as a medium for differentiating groups of males and females on a wide variety of topics (see Lenney, 1979a and 1979b for a review). The results of this study do not challenge the fact that researchers have reported statistical differences between the sex-type groups. The evidence of this study does, however, seriously challenge the interpretations of such results. The implications of the current study suggest that predictions and/or conclusions based on sex-type group differences or similarities are not accurate in that they do not address the issues of comparability between males and females within each of the various sex-type groups. That is, if males and females are not comparable within a sex-type group, as this study suggests, how can group generalities be formulated with empirical validity? Results of all previous investigators who have not addressed the comparability issue are subject to criticism on these grounds.

Implications for Current Schema Theories

The data indicate that males and females sharing sex-type group membership do not, likewise, share identical perceptions of gender-related characteristics. Where comparability was reported, it was perceived by only one sex within that sex-type group. For example, masculine sex-type females rated no differences between self and males on masculine items, but masculine-sex type males did; likewise feminine sex-type males rated no differences between self and

females on feminine items, but feminine sex-type females did, and androgynous sex-type males perceived no difference between self and females on feminine items, but androgynous females did.

The aforementioned results indicated little evidence for the support of a comparability hypothesis for either males or females as a group, or within each of the sex-type groups (hypotheses 2 and 3). Comparability was only found to be supported when males and females exhibited high levels of agreement over where males and females should be rated on feminine items. Furthermore, this agreement was related to the belief that males and females were stereotypically different on this dimension. Moreover, on masculine items, males and females disagreed over appropriate levels of response for the biological sexes (hypotheses 4 and 5).

The purpose of this study was not to investigate directly the contentions of current gender schema theorists. As was mentioned in Chapter I, before such contentions could be addressed, further information was needed with regard to the psychological equivalence of males and females within each of the sex-type groups used by current theorist (see Bem, 1981, 1982; Markus, 1982). The data resulting from this study, however, offer evidence which is relevant to further conceptualizations of such theories. On several dimensions, the results indicate a somewhat different view of the nature of male and female gender schemas than those offered by Bem

(1981) and Markus et al. (1982). As previously noted, the major contentions of Bem (1981) are as follows:

1. That males and females are sensitive to both masculine and feminine stimuli, and that this sensitivity is used to categorize information into proper 'me' and 'not me' judgements.

2. That androgynous individuals are non-sex-typed and are sensitive to masculine and feminine stimuli, but relate to these traits without implicating the concepts of masculinity or femininity and have no personal salience for either category.

3. That undifferentiated individuals are non-sex-typed and are seen as not especially sensitive to either masculine or feminine stimuli and are seen as neutral with regard to personal salience for either masculine or feminine categories.

The results were supportive, in part, of Bem's first contention i.e., that masculine and feminine sex-typed individuals do appear sensitive to both masculine and feminine stimuli, and that this information is used to categorize information into 'me' or 'not me' judgements. However, the results also indicated that this sensitivity and categorization occurs not only for the masculine and feminine groups, but for all other sex-type groups. Bem's second contention was not supported by the data presented here. Although androgynous males and females are sensitive to masculine and feminine concepts, there is little evidence which would suggest that they are non-sex-typed with regard to these concepts. As previously reported, androgynous males rated themselves higher on masculine items than females, and

androgynous females rated themselves higher on feminine items than males. Thus, the contention that such individuals attach little importance to either the masculine or feminine category is not supported.

Bem's third contention also received little support from the present study. Undifferentiated individuals show an awareness of masculine and feminine stereotypes (analysis of hypothesis 1), and furthermore, perceive differences between themselves and members of the opposite sex in both the masculine and feminine categories. Thus Bem's contention that undifferentiated individuals are non-sex-typed and neutral with regard to personal salience for either masculine or feminine categories is not supported.

The results of this investigation also impact on the major premises raised by Markus et al. (1982):

1. That male sex-typed persons were seen as having masculine schemas and attending primarily to masculine stimuli.

2. That female sex-typed persons were seen as having feminine schemas and attending primarily to feminine stimuli.

3. That a person who has a masculine or feminine schema will be viewed as being an expert on either masculinity or femininity, but will not be viewed as an expert on opposite schema traits.

4. That high-androgynous persons have incorporated both femininity and masculinity schemas into their self concepts.

5. That low-androgynous persons appear to be without knowledge, structure, and aschematic with regard to features of masculinity or femininity.

Contentions 1 through 3 are not supported by this investigation. Markus et al. (1982) have suggested that to be gender schematic one must attend to both masculine and feminine stimuli. Furthermore, masculine sex-typed persons and feminine sex-typed persons are not seen as truly gender schematic because they attend primarily to gender relevant information that is either masculine or feminine in its orientation. As previously reported, both males and females have extensive knowledge about stereotypes relevant to appropriate responses of both masculine and feminine categories (hypothesis 1). Furthermore, males and females appear to be expert both in what is sex appropriate and what is opposite-sex appropriate (hypothesis 2). Not only are they expert in opposite-sex information, but their perceptions appear to be sex-linked and based on biological group membership (hypothesis 3).

The fourth contention of Markus et al. is partially supported by the results of this study. The contention that the High Androgynous group has incorporated both masculinity and femininity schemas into their self-concept is supported. However, the evidence suggests that males and females of all sex-type groups also have available to them equal knowledge about the dimensions of masculinity and femininity. This, along with the finding that males and females within this group are not comparable, suggests that Markus et al.'s contention that the High Androgynous group is the only truly schematic sex-type group, as such, cannot be supported.

As to Markus et al.'s fifth contention, the results do not support this premise in any way. Markus et al. (1982) and Bem (1981) have contended that the Undifferentiated group is somehow "aschematic" with regard to gender. The notion that this group is without the knowledge and structure of features of masculinity and femininity is totally unsupported. The contention that certain persons are aschematic or non-sex-typed with regard to gender not only lacks support in the present investigation, but the evidence indicates a contrary finding. That is, males and females of all sex-type groups are schematic with regard to gender-related knowledge. The difference in schema type is shown to be more related to the persons biological sex than to which sex type the person is classified in.

Implications for future research

The present study does not suggest that the concept of sex-type groups has no utility in gender schema investigations. It may be that individuals falling into such categories share certain psychological characteristics. The present study does suggest, however, that such similarities, if they do in fact exist, can not necessarily be generalized across biological sex. This does not rule out the possibility that sex-type group membership might reflect within-group (sex) differences. Future research should seek to clarify and redefine the utility of these concepts.

Rather than viewing sex-type groups as reflective of differing kinds of schemas, it is suggested that a more fruitful approach would be to view the existence of different gender-schemas for biological males and for females. This paradigm would suggest 1) that males process gender relevant information vis a vis a masculine orientation (male gender schema, and 2) that females process gender relevant information vis a vis a feminine orientation (female gender schema). Furthermore, it is suggested that within either the masculine or feminine orientation, gender-relevant information is processed vis a vis three reference points: 1) self schema, 2) same-sex (in-group) schema, and 3) opposite-sex (out-group) schema.

The results of this study afford an alternative way of viewing gender schemas in males and females which is generally supportive of the concepts proposed by Martin and Halverson (1981), who suggested that two forms of schemas are involved in sex-typing: first, an "in-group-out-group" schema which involves basic or general information used to label behavior, i.e., as being either for males or females; secondly, an "own-sex" schema which involves more detailed and specific information which is retained as relevant to characterize "one's own sex".

The results of this study suggest that a re-conceptualization of the concepts of gender schemas for males and females is needed. Concepts such as "feminine males" or

"masculine females" do not provide a clear understanding of gender schemas. Rather, it would seem more appropriate to view males as processing gender relevant information from within a masculine schema perspective, and females as processing gender relevant information from within a feminine gender schema. It is suggested that levels of masculinity for males will range from low to high in general, and in the situational context. Furthermore, levels of femininity for females will likewise range from low to high in general, and in various situational contexts. Although the findings support differing perceptions of gender which appear to be related to biological sex, this perspective does not advocate a return to a bipolar view of gender with regard to males and females. In fact the study suggests a contrary conclusion. Males and females seem to relate to both the masculine and feminine trait items as meaningful for themselves as well as for members of the same and opposite sex. However, differing views of gender based on biological group membership appear to be supported and may, in fact, reflect the differing experiences of being socialized as either male or female. If such differential socialization can in part account for the self concept of individual males or females, then it is reasonable to presume that different gender schemas might also be operational for males and for females.

With regard to the concept of androgyny, this study finds little support for the utility of the belief that some

persons are both masculine and feminine. If fact, such a view might only mask the importance of current differential gender socialization. There is no evidence to suggest that males and females are socialized to acquire masculine and feminine traits separately; e.g., learn to have a masculine and feminine side. Males and females may learn to be expressive or instrumental, but the evidence of the study suggests that these perceptions tend to be viewed as normative by both males and females.

Recommendations

This study has limitations with regard to the socioeconomic and ethnic makeup of the respondents. Further research is needed with subjects of more diverse social and ethnic backgrounds before the generalizations and conclusions presented thus far could be considered verified. Having established that males and females are not comparable within sex-typed groups, several research directions can be suggested. First enhanced instrumentation could be developed to better access and document the nature of male and female perceptual differences vis a vis the masculine and feminine dimensions. This might be accomplished by having males and females respond to a wider range of masculine and feminine traits. This would assist in further delineating the extent of schematic polarities and expectations. Second, the modular response technique used in this study might be useful in investigating perceived differences of males and females

with regard to generational consistency (rating parents on gender traits), as well as situational dimensions (rating peers or potential mates) and in cross-sectional studies of adolescence, young, middle, and later adult years. Most important, it is suggested that the lack of comparability should and must be considered whenever males and females are compared on gender related traits and their concurrent responses as they relate to schema development within the context of their own gender-role socialization.

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APPENDIX A

MODIFIED BEM SEX ROLE INVENTORY

Using Column A, please complete this form describing yourself.

1 NEVER OR ALMOST NEVER	2 USUALLY NOT	3 SOMETIMES BUT INFREQUENTLY	4 OCCASIONALLY	5 OFTEN	6 USUALLY	7 ALWAYS OR ALMOST ALWAYS

	A	B	C
Self-reliant			
Yielding			
Helpful			
Defends own beliefs			
Cheerful			
Moody			
Independent			
Shy			
Conscientious			
Athletic			
Affectionate			
Theatrical			
Assertive			
Flatterable			
Happy			
Loyal			
Strong Personality			
Unpredictable			
Forceful			
Feminine			

	A	B	C
Reliable			
Analytical			
Sympathetic			
Jealous			
Has leadership abilities			
Sensitive to the needs of others			
Truthful			
Willing to take risks			
Understanding			
Secretive			
Makes decisions easily			
Compassionate			
Sincere			
Self-sufficient			
Eager to soothe hurt feelings			
Conceited			
Dominant			
Soft-spoken			
Likable			
Masculine			

	A	B	C
Warm			
Solemn			
Willing to take a stand			
Tender			
Friendly			
Aggressive			
Gullible			
Inefficient			
Acts as a leader			
Childlike			
Adaptable			
Individualistic			
Does not use harsh language			
Unsystematic			
Competitive			
Loves Children			
Tactful			
Ambitious			
Gentle			
Conventional			

APPENDIX B

INFORMED CONSENT

Informed Consent

I am currently doing research for a doctorate degree. Your instructor has been kind enough to allow me a portion of class time for this purpose. I am here to request your cooperation in answering these questions and taking part in this study. Your participation in this study is strictly VOLUNTARY. The study is divided into two parts. The first request you to fill out information about yourself. The second part consists of a number of traits which you are asked to comment on. There are no right or wrong answers...I only want your HONEST opinions. Your identity will be completely anonymous since all responses will be counted statistically by a computer. DO NOT WRITE YOUR NAME on any other page of this material. Again I would like to state that participation in this study is strictly voluntary, and NO one has to participate if he/she does not wish to. Participation or nonparticipation will NOT effect your course grade in any way. A summary of the findings of this study will be made available to anyone participating who wishes such a summary. I thank you for your time and help.

James T. Morris Jr.

I understand that participation in this study is VOLUNTARY. I also understand that participation will not effect my course grade in any way. I wish to participate in this study.

SIGNATURE:

If you want to receive a summary please fill out the following information.

Name:

Street:

City:

State: ZIP: