SEX-ROLE IDENTIFICATION IN EARLY CHILDHOOD:

A STUDY OF CHILDREN AND THEIR PARENTS

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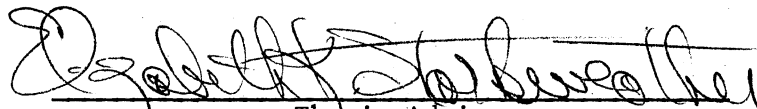MASTER OF SCIENCE
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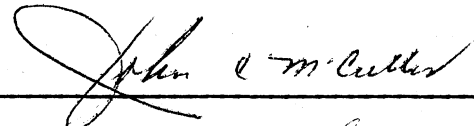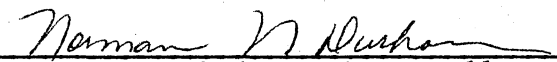
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CHAPTER I

INTRODUCTION

Problem

Our society can be described as sexist. Gershman (1973) has sug-
gested that it forces individuals into molds that frequently deny men
the qualities of sensitivity, tenderness and sentiment, and deny women
the qualities of assertiveness, courage and perseverance. This could
be harmful to both men and women. In contrast to our sexist society,
an androgynous society is one that has no stereotyped behavioral dif-
ferences between the roles of males and females, i.e., differences based
on sex alone (Osofsky and Osofsky, 1972).

Androgynous people are free to be and do whatever their bodies,
aptitudes and interests allow, instead of being limited by society's
stereotypic expectations for their sex (Lee, 1976). Androgyny permits
different behaviors in different situations. If the situation calls for
sensitivity (a stereotypic feminine quality) the androgynous person,
whether male or female, is free to react with sensitivity. If the sit-
uation calls for independent behavior (a stereotypic masculine quality)
the androgynous person is free to respond in this manner (Brenton, 1966).

Androgynous children, that is, children free to express the best of
what masculinity and femininity represent, might contribute to a more
healthy society. Luce (1975) expressed the hope that the goals and
practices in families and in schools could be changed to permit children

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to develop according to their individual differences rather than accord-

ing to prescribed roles. Bem (1976) expressed the belief that in an an-

drogynous society the more negative exaggerations of masculinity and

femininity would tend to be cancelled out. She developed the Bem Sex-

Role Inventory, designed to identify an individual as masculine, femi-

nine or androgynous, and she hoped that its use would

> ...encourage investigators in the areas of sex differences
> and sex roles to question the traditional assumption that it
> is the sex-typed individual who typifies mental health and
> to begin focusing on the behavioral and societal conse-
> quences of more flexible sex-role self-concepts. In a so-
> ciety where rigid sex-role differentiation has already
> outlived its utility, perhaps the androgynous person will
> come to define a more human standard of psychological
> health (Bem, 1974, pp. 161-162).

One possible solution to the problem of sex-role stereotyping that

exists in our society is proposed by Rebecca, Hefner and Oleshansky (1976).

They believe that life is in continual and dynamic flux. They have pro-

posed that after the child has learned the sex-role standard and stereo-

types as a means of entering the adult world, he can transcend the

stereotypes and reorganize the behavioral possibilities into a person-

ally relevant framework. Such adaption could occur at any of several

levels in order to meet the needs of the situation, the role and the

individual. They do not see androgyny as a stable psychological trait

with an equal balance of male and female characteristics, as was proposed

by Bem (1974).

Women in our culture have not been in power positions because the

institutional structure does not support them, according to Bernard (1976).

She believes that when women do have institutional support to be in power

positions, individual differences rather than sex differences seem to

determine their role assignment. Women who had one hoped to make themselves

felt without resorting to the use of power now believe that they must learn how to achieve power and how to use it, she observes. This change in attitude is an example of the type of adaptation which can occur in one's sex-role orientation to life as suggested by Rebecca, Hefner and Oleshansky (1976).

The present research is focused on the sex-role identification of young children and their parents. The critical years for the development of sex-role identification are the preschool years; and it is assumed that parents have a major influence on the child's development of sex-role identification. The present research is particularly concerned with the masculinity, femininity or androgyny of parents and how this relates to the masculinity, femininity or androgyny of preschool children. To the extent that this research yields information about the relationship between parents' sex-role identification and that of their children, it will increase our understanding of sex-role identification and this in turn may contribute to the solution of the problems which exist in our sexist society.

Sex-Role Identification

Sex-role identification was explained by Bronfenbrenner (1960) in terms of behavior, motive and process. Identification as behavior implies that a child behaves in the manner of a model, and directly imitates the behavior of the model. For example, a boy may try to shave after he has seen his father shave. Identification as motive refers to the child's disposition to act like a model. The child imitates the qualities or traits that he sees in the model's behavior. For example, the boy who sees his father as being competitive will likewise behave in

a competitive manner. Identification as process refers to the developmental or defensive mechanisms which result from "the sequential interplay of forces internal and external which impel the child to take on the characteristics of the parent" (Bronfenbrenner, 1960, p. 22).

Biller and Borstelmann (1967) have defined sex-role identification in terms of orientation, preference and adoption. Sex-role orientation is formed earliest in life and is the least likely to change. It is the individual's perception of his own maleness or femaleness. Sex-role preference is formed next. It is the individual's desire to adhere to the cultural expectations for a given role. Perception of his father as powerful would be positively related to the masculinity of a boy' preference; however a boy could have a high masculine orientation but a low masculine preference. If father is frustrating or rejecting, a boy might seek to be more like mother. If mother is critical of father, this might create a conflict in the boy's orientation and preference development. Sex-role adoption refers to the child's manifestation of the socially accepted behavior belonging to the role that he prefers. Sex-role adoption is a product of imitation and therefore is influenced by situational factors. The family seems to have less influence on sex-role adoption than it does on orientation and preference. A boy with a feminine orientation might, as a defense, adopt exaggeratedly masculine behavior because of society's expectations. The critical years for sex-role adoption are the ages three through five (Biller, 1968).

Kagan (1964) refers to the culturally approved characteristics for males and females as the sex-role standard. For example, in our culture females are expected to be dependent, affective, passive and nurturant; whereas males are expected to be aggressive, dominant and independent.

Kagan refers to sex-role identification as the degree to which an individual regards himself as masculine or feminine in terms of the sex-role standard. A person who possesses the attributes of masculinity does not necessarily regard himself as highly masculine; however, he cannot regard himself as highly masculine if he does not possess any masculine attributes. Kagan assumes that the young child is clearly aware of sex roles; and that the child wants his actions, attitudes and affects to be congruent with the sex-role standard.

Silver (1973) used the term gender identification to indicate the degree to which a person regards another individual, not himself, as masculine or feminine. Correctly identifying the sex of another person is intimately related to the ability to identify one's own sex, and the term gender identity is frequently used to indicate a child's ability to identify his own sex. Also there are times that the term is given the same meaning as sex-role identification.

Evidence of sex-role identification in early childhood, regardless of the way in which the term is defined, is found in the behavior of the child. Lynn (1966) described the child as internalizing the role typical of a given sex in his culture and then unconsciously reacting with the characteristics of that role; thus the behavior expressed by the child indicated his sex-role identification.

Purpose

The purpose of this study was to investigate the relationship between the masculinity and femininity of preschool children as measured by the Starkweather Masculinity-Femininity Test and the masculinity, femininity and androgyny of their parents as measured by the Bem Sex-Role

Inventory. Age differences and sex differences in the relationship be-
tween the children's masculinity-femininity and that of their parents
were examined in an attempt to gain an increased understanding of sex-
role identification.

CHAPTER II

REVIEW OF THE LITERATURE

In considering sex-role identification, researchers have used many

methods and have reached various conclusions. This chapter will review

briefly the major instruments and methods that have been used to measure

masculinity and femininity in both children and adults. The chapter will

also include research findings relevant to sex-role identification.

The Measurement of Masculinity-Femininity
In Children

Children's masculinity-femininity has been measured by three meth-

ods: observations, interviews and projective techniques. Observing

children was the only method of collecting data until ways were found of

adjusting interview and projective techniques to a child's level of

understanding.

Observation and Behavioral Methods

Observation methods necessarily depend upon the judgments of the

observers. In many studies several observers are used as a check against

one another.

Brim (1958) developed a teacher rating scale. The scale consists

of 58 items which were judged to be masculine (instrumental) or feminine

(expressive) by adult judges. The scale was designed for use with five

and six year old children.

Bandura, Ross and Ross (1963) studied children's masculinity-femininity by observing their social interactions with two adults. Following an initial observation of the adult-child interactions, the two adults behaved differently in the presence of the child, and a measure was made of the degree to which the child patterned his behavior after the adult models.

Sears, Rau and Alpert (1965) used an area usage score and an observer rating to observe children's masculine and feminine preferences. For the area usage score, areas used 65 percent of the time or more by one sex and 35 percent or less by the other were defined as sex-typed areas. The children were scored according to the time spent in these areas. For the observer rating, four observers rated each child using a five-point scale for boys ranging from a sissy (1) to entirely masculine (5), and a five-point scale for girls ranging from a tomboy (1) to a coquette (5). The average of these four ratings was used as each child's masculinity-femininity score.

Fagot and Patterson (1968) used observations of play preferences to find out whether sex-appropriate behaviors were present in preschool classes. They also observed the female teachers reinforcing feminine behaviors, and peers reinforcing like-sex peers. These observations contributed to a better understanding of the factors influencing the development of sex-role identification.

Interview Methods

Interview methods of measuring children's masculinity-femininity can be described as questionnaires modified for use with children. With these methods pictures and toys are used in order to allow the child to

indicate his preferences without writing and with little or no talking. The toys and pictures give the child something to handle while he is responding. Such tests are enjoyed by the children.

Rabban (1950) developed a toy preference test which has been adapted and used by other researchers (DeLucia, 1963; Sears, Rau and Alpert, 1965; Ward, 1968, 1969). The test consists of 16 toys, e.g., high chair, gun, dishes, firetruck, which were judged as masculine or feminine by children nine to eleven years old and by graduate students. The child chooses the toys he likes to play with, and his score is determined by the masculine or feminine rating of the toys he has chosen. In later studies pictures of the toys rather than the toys themselves have been used.

Fauls and Smith (1956) developed a pictures test which also has been used by other researchers (Sears, Rau and Alpert, 1965; Angrilli, 1960; Kohlberg and Zigler, 1967). The test consists of 12 paired pictures of play activities from which the child chooses the activities he prefers. There is a separate set of pictures for boys and for girls. A child's score is determined by the child's preference for masculine or feminine activities.

Starkweather (1973) developed a masculinity-femininity test for preschool children. It consists of a booklet of pictures, three pictures on each page, from which the child chooses the pictures that he prefers. He is given a copy of each picture that he chooses and these he keeps. The scoring of this test is based on the actual picture choices of children. Each picture is given a weighted score which indicates whether it was chosen most often by boys or by girls. This scoring procedure eliminates the adult judgment of masculinity and femininity and instead bases

the scoring on the demonstrated preferences of boys and girls.

Kohlberg and Zigler (1967) measured the sex-typed peer preferences of children ages four through eight. This test consists of the experimenter asking the child to name three children in school whom he likes, who are nice. Then the child is asked if he likes members of the opposite sex: "Do you like boys (girls)?" The scoring is based upon how many members of the opposite sex the child chooses and whether he says he likes or dislikes members of the opposite sex. This test is a totally verbal interview method, difficult to use with preschoolers.

Silver (1973) devised an Aggression, Nurturance, Dependency Scale (ANDS) to measure gender identity in children ages three through eight. The children labelled statements showing aggression, nurturance and dependency as being masculine or feminine. The test was totally verbal, i.e., there were no pictures or toys for the children to look at or handle as they talked. Perhaps it was for this reason that the test did not determine gender identification for three and four year old children.

Other questionnaires have been devised specifically for use with elementary school children (Biller and Zung, 1972; Stein, Pohly and Mueller, 1971; Helper and Quinlivan, 1973). These are totally verbal interviews, and primarily because of this, are not suitable for use with preschool children.

Projective Techniques

Projective techniques consist of the presentation of unstructured material, such as ambiguous pictures, to stimulate the subject's responses. His responses reveal his characteristic traits, feelings, attitudes and behavior patterns.

Brown (1956) devised the It Scale to test preschoolers for masculinity and femininity, a test which has been used extensively (Mussen, 1959; Hartup and Zook, 1960; Mussen and Rutherford, 1963; Lynn, 1962; Hartup, 1962; Sears, Rau and Alpert, 1965; Inselburg and Burke, 1973). The test consists of a stick figure of a child (It) and pictures of toys and clothes. The child is asked to choose the toys and clothes that "It" would prefer. The assumption is that the child will project his own preferences into the choices he makes. Throughout the research with this instrument, many children, boys and girls alike, have chosen masculine items for the It figure, indicating that most children see the figure as a boy. This problem has prompted modifications of the instrument. For example, Fling and Manosevitz (1972) modified the test by using an Imaginary It, which the children did not see. With this and other modifications, the results were different from those of previous It Scale studies. Because of variations in results, the use of the Brown It Scale as a measure of masculinity and femininity has been questioned.

The Draw-A-Person Test has been adapted and used by many researchers to determine a child's masculinity or femininity (Angrilli, 1960; Tolor and Tolor, 1974; Heinrich and Triebe, 1972). The test consists of asking the child to draw a person. The drawing of a girl is assumed to indicate feminine preference, and the drawing of a boy is assumed to indicate masculine preference. A major problem with this test is that it is difficult to differentiate the child's preference from what society values as important. Recently in research with older children, the results of this test have been interpreted as reflecting the changing values of society (Tolor and Tolor, 1974).

Another method of measuring the masculinity and femininity of young

children has been to observe the children in doll play (Biller, 1967; Mussen and Rutherford, 1963; Hartup, 1962; Sears, Rau and Alpert, 1965; Vroegh and Handrich, 1966). The assumption is that the child projects his masculine or feminine preference into the doll play by choosing the role he wishes to play.

The Measurement of Masculinity-Femininity
In Adults

The measurement of masculinity-femininity in adults began as a by-product of questionnaires on personality and interests. Men and women tended to score at opposite poles on certain items, and these items were selected as measures of masculinity-femininity. Constantinople (1976), in a review of the major tests of masculinity-femininity in adults, rejected masculinity-femininity as a bipolar trait, and expressed the belief that the sex differences on test items have no relationship to being a woman or a man. A sex-role inventory developed most recently "treats masculinity and femininity as two independent dimensions, thereby making it possible to characterize a person as masculine, feminine or androgynous" (Bem, 1974, p. 155).

The Terman-Miles Attitude Interest Analysis Test (1936) was one of the earliest tests designed to measure masculinity-femininity in adults. The test includes seven exercises: Word Association, Ink Blot Association, Information, Interests, Introversion, Emotional and Ethical Attitudes and Opinions. The major purpose of the test is to highlight responses which discriminate between the sexes; and therefore, the items selected for inclusion in the exercises were those that yielded significant differences in responses of the sexes. The validity of the test was questioned by

its authors because of the absence of a clear definition of masculinity and femininity (Constantinople, 1976).

The Strong Vocational Interest Blank (1936) was designed to measure the vocational interests of men and women and included a masculinity-femininity scale. The assumption was that men and women would seek different careers. For the test as a whole, the author acknowledged that similarities vastly overshadowed differences between the sexes. Consequently, a woman would be scored masculine if she were interested in a masculine-type occupation (Constantinople, 1976).

The Guilford Masculinity (M) Scale was derived through factor analysis during Guilford's study of basic personality dimensions. The criterion for the M Scale was not sex, and Guilford himself questioned whether the M-factor might represent a masculine ideal rather than a sex-difference factor or might be a measure of dominance or ascendance-submission (Guilford and Guilford, 1936). In spite of questions about the reliability of the M Scale and what it was measuring, it continued to be used, and, in 1949, was incorporated into Guilford and Zimmerman's Temperament Survey.

The Minnesota Multiphasic Personality Inventory (Hathaway and Mc-Kinley, 1943) contains a masculinity-femininity scale, which was designed to identify sexual inversion in males. Homosexuality was included in the definition of the construct (Constantinople, 1976). The use of this test as an instrument for measuring masculinity-femininity in the general population has been questioned (Cronbach, 1960).

The Gough Femininity Scale (1952) was designed to discriminate between males and females on the basis of stereotypic aspects of masculinity and femininity. As with other instruments, this scale was revised

after a few years of use. Gough's California Psychological Inventory
(1966) was one such revision. This inventory is probably most appro-
priate for use with high school and college students because these were
the groups involved in its construction (Constantinople, 1976).

Measures of masculinity and femininity in adults, other than ques-
tionnaires, include adjective checklists (Berdie, 1959; Heilbrun, 1964),
a word association test (Goodenough, 1946), a semantic differential
technique (Reece, 1964), a drawing completion test (Franck and Rosen,
1949), and the Draw A Person test (Brown, 1957). The assumption in these
tests is that the items are less tainted by sex-role stereotypes than
those in questionnaires, thereby producing a truer measure of masculinity-
femininity (Constantinople, 1976). In some of these tests, items or
possible responses are prejudged as masculine or feminine and the sub-
jects' responses are scored accordingly. The drawing tests are projec-
tive techniques, and the assumption is that the subject expresses his own
masculinity or femininity in his drawing.

The Bem Sex-Role Inventory (1974) was designed to identify mascu-
line, feminine and androgynous adults. The Inventory consists of 60
items, 20 of which are designated as masculine, 20 as feminine, and 20
as neutral. The masculine items are those which were judged to be more
desirable in American society for a man than for a woman, and the femi-
nine items are those which were judged to be more desirable for a woman
than for a man. An individual taking the test rates himself on each of
the items listed. A score for the masculine items and a score for the
feminine items are obtained, and each person's test score is based on the
difference between these two. A person is considered sex-typed if the
difference between his masculinity and femininity scores is high, and he

is considered androgynous if the difference between these two scores is low. The 20 neutral items in the Inventory make up a Social Desirability scale, which serves as a neutral context for the Masculinity and Femininity scales. The inclusion of the neutral items, which balance those which are obviously masculine or obviously feminine, it is assumed, helps the subject rate himself more objectively. The responses to these neutral items are not included in the scoring. During the development of the Bem Sex-Role Inventory, the Social Desirability scale was used to insure that the Inventory would not simply be tapping a general tendency to endorse socially desirable traits.

Relevant Research Findings on Sex-Role Identification

Controversy exists over whether or not one should score high in his own sex-role identification, that is, whether one should fit the sex-role stereotype prescribed by society. Some research has shown high masculinity to be an advantage for boys and high femininity to be an advantage for girls. Vroegh (1968) found that masculine boys tend to be more extroverted, moderately more competent and socially adjusted than less masculine boys. She also found that feminine girls tend to be better adjusted socially, moderately more competent and introverted than less feminine girls. In contrast to these findings, Inselberg and Burke (1973) found that boys attained maximum adjustment at an intermediate level of masculinity rather than at the highest masculine level. Boys who were highest in masculinity during adolescence, as compared to the less masculine boys, scored lower in dominance, self-acceptance, and capacity for status as adults.

Parents are generally regarded as the child's most important models for sex-role identification. As children grow older, they become more like their parents, with the dominant parent having the greater influence on the child's sex-role preference (Hetherington, 1965). Preschool children more often imitate the parent who is the more powerful, especially if that parent is dispensing rewards. However, a child who has a single primary model will not imitate that model completely. He will imitate a few behaviors from other models and even initiate new behaviors (Bandura, Ross and Ross, 1963). The intimacy and intensity of the parent-child relationship is important in sex-role identification. Mussen and Rutherford (1963) believe that girls need a positive mother-daughter relationship. They need a mother who accepts herself, and they need a father who has a high degree of masculine interests and attitudes, and who encourages participation in appropriate sex-typed activities. On the other hand, boys' sex-role identification is not influenced by their relationship with their mothers, by the personality structure of the parents, or by parental encouragement of sex-typed activities. Angrilli (1960) found no significant relationship between psychosexual identity patterns of boys and those of their parents. In contrast to these findings, Fling and Manosevitz (1972) found that parents influence boys' sex-role identification by sanctions against inappropriate interests. Sears, Rau and Alpert (1965) found that femininity in both sexes has been encouraged by a non-permissive attitude toward sexual and aggressive behavior and by the use of physical punishment.

Biller (1970) reported research that found the father to be the primary transmitter of culturally determined conceptions of masculinity-femininity. Paternal nurturance influences the development of sex-role

identification in girls and boys. A girl's degree of femininity reflects her father's expectations; and a boy's masculine development is more often facilitated by warmth and affection from the father than by punitiveness (Sears, Rau and Alpert, 1965; Biller and Borstelmann, 1967). An argument for the influence of paternal nurturance is that a boy would tend to imitate his father because he loves and respects him. Even if the father were not highly masculine, a boy might tend to perceive him so and imitate this masculinity (Biller and Borstelmann, 1967). The boy's sex-role development is most influenced by the father when the father is dominant in the home (Hetherington, 1965; Biller, 1969). Father's behavior in the home and the degree that he is psychologically present have been found to be more important to the boy than the amount of time that the father is available, unless he is not available at all (Biller, 1968). In contrast to these findings, Radin (1972) found that male sex-role preference was not correlated with paternal nurturance.

The influence of mothers on the sex-role identification of their children depends a great deal upon how dominant or authoritarian the mothers are. Mothers have been found to exert more effort toward their daughters' than toward their sons' sex-role identification (Fling and Manosevitz, 1972). A dominant mother was found to contribute to feminine preferences in preschool girls, but to masculine preferences in fourth through sixth grade girls (Hartup, 1962; Biller and Zung, 1972). In boys ages four through eleven, a dominant mother was found to contribute to less masculine preferences (Hetherington, 1965). In contrast, Vroegh (1966) found that a dominant mother contributed to more masculine preferences in boys. Bach (1946) found that even the mother's opinion of the father can influence the boy's sex-role identification.

The most important determinant of parental influence on sex-role identification is the way in which the child <u>perceives</u> his parents. Emmerich (1959) found that girls perceive the mother as more powerful than the father but see themselves as less powerful than boys. He also found that boys perceive the mother as more nurturant, the father as more controlling. Mussen and Distler (1959) found that boys who were strongly masculine saw their fathers as powerful sources of both reward and punishment; they also saw their fathers as nurturant. Lynn (1962) found that feminine girls perceived more warmth in their mothers; less feminine girls attributed more warmth to their fathers. Biller and Zung (1972) found that fourth through sixth grade girls who were more masculine perceived their mothers as being too intrusive.

By the age of three a child usually has a distinct repertoire of sex-role behaviors, learned chiefly from his parents. However, in addition to parental influence there is the influence of teachers and peers. Both teachers and peers are likely to reinforce their own sex-role behaviors in the child. Fagot and Patterson (1969) found that feminine teachers' reinforcement of feminine behaviors did not affect boys' preference for masculine behaviors, probably because of peer reinforcement and reinforcement received at home. They even concluded that with the absence of one or both parents the child will acquire appropriate sex-role behaviors if he has a reasonable amount of contact with his peers.

Physique and intelligence are two other factors that may be related to sex-role identification. Biller (1968) found that broad boys were more masculine than thin boys. He also found that in preschool boys, high masculinity is correlated with high I.Q. Radin (1972) found a correlation with high I.Q. only in high feminine girls in the lower

socioeconomic class. Bem (1972) reviewed the literature and concluded that a high level of sex-appropriate behavior does not indicate higher intelligence, but rather that greater intellectual development seems to be associated with cross-sex-typing.

In our society, girls have been given freedom to adopt aspects of of the masculine role, whereas boys have not been given freedom to adopt aspects of the feminine role. This probably accounts for findings that girls were later in developing feminine sex-role preferences than were boys in developing masculine sex-role preferences (Hetherington, 1965; Kohlberg and Zigler, 1967). Brown (1957) also found that more than twice as many kindergarten girls as boys projected a preference for the parental role of the opposite sex. Stein, Pohly and Mueller (1971) found that elementary school girls who made the greatest effort on a masculine task scored highest on a questionnaire measure of masculine interests. These girls did not differ from other girls on a separate test of feminine interests. The masculine interests appear to broaden rather than limit the girls' preferences. One result of the latitude allowed girls in our society is that they have knowledge of masculine sex stereotypes as well as their own. The knowledge itself does not necessarily affect sex-role behavior, according to Vroegh (1975).

Research with elementary school children has shown that girls prefer the masculine role more frequently than boys prefer the feminine role. However, recent research has indicated that changes in the sex-role identification of girls are taking place. Heinrich and Triebe (1972) compiled the results of 19 Draw A Person Test studies taken over the past 25 years. These studies found that beginning at age 11 boys draw boys significantly more often than girls draw girls. More recently, however,

Tolor and Tolor (1974) found that girls aged 10 to 12 are more likely than previously to draw the female figure first in the Draw A Person Test. They found, however, that references made to either sex-role differences or similarities tended to reduce the chances of their drawing female figures. Thus we can see how slow is change and how tenuous is our hold on new beliefs.

Implications for the Present Research

The sex-role identification of both children and adults has been studied by a variety of methods, including interviews, observations and projective techniques. The most appropriate instrument for use with the children in the present research is the Starkweather Masculinity-Femininity Test because it lets the children decide, by the pictures they choose, what is masculine and what is feminine. Their behavior shows their sex-role identification. The most appropriate instrument for the parents is the Bem Sex-Role Inventory because it treats masculinity and femininity as two independent dimensions and also provides a way of identifying the androgynous person.

Research findings indicate that parents, teachers and peers, also physique and intelligence, all influence a child's sex-role identification. Parents are the primary models for the preschool child, and therefore this research is concerned with the relationship between the masculinity-femininity of preschool children and the masculinity-femininity of their parents; and it includes an examination of the relationship between the androgyny of the parents and the child's sex-role identification.

CHAPTER III

METHOD AND PROCEDURE

The purpose of this study was to investigate the relationship between the masculinity and femininity of preschool children and the masculinity, femininity and androgyny of their parents in an attempt to gain an increased understanding of sex-role identification. This chapter includes a description of the children and parents who participated in the research, descriptions of the research instruments used and how they were administered, and information regarding the analysis of data.

Subjects

The children who participated in this study were middle-class preschoolers from Tulsa and Stillwater, Oklahoma. There were 89 children in all, 41 boys and 48 girls. Their age range was from three years, no months to five years, nine months. The distribution of the children by age and sex is presented in Table I.

The parents of the children were asked to participate in the study by completing the Bem Sex-Role Inventory. For 74 of the children, both parents responded to the Inventory, and for the remaining 15 children, only the mother responded. The ages and sex of the children whose paremts responded to the Inventory are presented in Table II.

TABLE I

DISTRIBUTION OF CHILDREN BY AGE AND SEX
(N = 89)

	Boys	Girls	Total
Three-year olds (3:0-3:11)	17	17	34
Four-year-olds (4:0-4:11)	18	21	39
Five-year-olds (5:0-5:11)	06	10	16
Total	41	48	89

TABLE II

AGES OF SEX OF CHILDREN WHOSE PARENTS RESPONDED
TO THE BEM SEX-ROLE INVENTORY
(N = 89)

	Both Parents Responded	Mother Only Responded
Three-year-olds		
Boys	15	02
Girls	14	03
Total	29	05
Four-year-olds		
Boys	16	02
Girls	18	03
Total	34	05
Five-year-olds		
Boys	05	01
Girls	06	04
Total	11	05

Research Instruments

Bem Sex-Role Inventory

Parents were asked to participate in the present research and to give permission for their children to participate. For the bulk of the families, the parents were seen in a group during a parent meeting at the preschool which the children attended. During that meeting the purpose of the study was explained and the parents completed the Bem Inventory. For other families, the parents were given the Inventories, along with a letter of explanation (Appendix B), when they brought their children to preschool. They completed the Inventories at home.

The Bem Sex-Role Inventory (BSRI) consists of 60 items, 20 of which are designated as masculine, 20 as feminine and 20 as neutral. The masculine items (e.g. aggressive, independent, ambitious) are those which were judged, during the development of the Inventory, to be more desirable in American society for a man than for a woman; and the feminine items (e.g. gentle, warm, yielding) are those which were judged to be more desirable for a woman than for a man. An individual taking the test rates himself on each of the items listed using a seven-point scale ranging from "never or almost never true" to "always or almost always true." Each person's test score is based on the difference between his score for the masculine items and his score for the feminine items. A person is considered sex-typed if the difference between his masculine and feminine score is high, and he is considered androgynous if the difference between these two scores is low. A complete description of the Inventory is presented in Appendix C.

Starkweather Masculinity-Femininity Test

The starkweather Masculinity-Femininity Test (M-F Test) was administered to the children in this study. The test consists of two picture booklets of 20 pages each; one is Form-A and the other is Form-B. On each booklet page are three pictures from which the child chooses the picture he prefers. He is given a copy of each picture that he chooses, and these he keeps. Form-A is administered first, and then after an interval of approximately two weeks, Form-B is administered.

One method of scoring the M-F Test is based on the actual picture choices of the children participating in the study. Each picture is given a weighted score which indicates whether it was chosen more often by boys or by girls. The test score for each child is the sum of the weighted scores for the pictures he chooses. Each child's score from Form-A is compared with his score from Form-B to find his stability score, which indicates how stable the child is in his masculine or feminine picture preferences from one test to the next.

A second method of scoring involves the use of tables of picture scores and tables of percentile ranks calculated from the picture choices of approximately 200 children who participated in the development of the instrument. With these tables it is possible to calculate the M-F scores for an individual child from the tables of picture scores and to calculate his stability score from the tables of percentile ranks. This method of scoring is used in the present research and is described in detail in the description of the Starkweather Masculinity-Femininity Test which is presented in Appendix D.

Analysis of Data

In the analysis of data, the Mann-Whitney U test and Chi-square were used to examine sex differences in the children's M-F test scores. Spearman rank correlations and the Mann-Whitney U test were used in the analysis of relationships between the children's M-F test scores and the parents' Bem scores.

CHAPTER IV

RESULTS

The purpose of this study was to investigate the relationship be-
tween the masculinity and femininity of preschool children and the mas-
culinity, femininity and androgyny of their parents in an attempt to
gain an increased understanding of sex-role identification. The research
instruments used were the Starkweather Masculinity-Femininity Test for
Preschool Children and the Bem Sex-Role Inventory.

Most of the parents enjoyed rating themselves on the Bem Sex-Role
Inventory and finding out how their spouses rated themselves. They were
interested in the results of the Bem Inventories and their child's M-F
test. In order to show the parents these results, a letter was written
to each family with a chart showing the relative position of the parents
on the Bem Inventory and the relative position of their child on the M-F
test. A copy of the letter to the parents is presented in Appendix B.

This chapter includes an analysis of the sex differences in child-
ren's M-F test scores and an analysis of the relationship between the
children's M-F scores and parents' Bem scores. Descriptive data and test
scores for individual children are presented in Tables XV and XVI, Appen-
dix A.

Distribution of Children's M-F Test
Scores and Parents' Bem Scores

The distribution of children's M-F test scores and parents' Bem

scores is presented in Tables III-VI. In each table scores are presented

for the total group of children (all boys and all girls) and are also

presented for older and younger children and for high-stability and low-

stability children. The older children (N = 46) are those four years

four months and older; and the younger children (N = 43) are those four

years three months and younger. The high-stability children (N = 43)

are those with stability scores within the range of 00-12, indicating

that they were stable in their expressed masculinity-femininity in the

two administrations of the M-F test. The low-stability children (N = 46)

are those with stability scores above 12, indicating that their expres-

sion of masculinity-femininity varied significantly from one administra-

tion of the M-F test to the next.

Sex Differences in Children's M-F
Test Scores

The Mann-Whitney U test and Chi-square were used to examine sex

differences in the children's M-F test scores. The majority of the boys

scored low-masculine (androgynous), and the majority of the girls scored

high-feminine. This was particularly true of the high-stability children.

On Form-A, the high-stability boys and girls had median scores of +044

and -152 respectively (U = 72; $p < .0001$). On Form-B, these boys and

girls had median scores of +036 and -145 (U = 78.5; $p < .0002$). These

data are presented in Table VII.

The sex difference in the distribution of M-F test scores is also

TABLE III

DISTRIBUTION OF M-F TEST SCORES
FOR BOYS

| | N | M-F Test Scores | |
		Median	Range
All Boys (3:0-5:9)			
Form A	41	+076	-099 to +215
Form B	41	+047	-185 to +275
Stability*	41	15	01 to 68
Older Boys (4:4-5:9)			
Form A	20	+057	-099 to +197
Form B	20	+016	-185 to +275
Stability	20	12	01 to 51
Younger Boys (3:0-4:3)			
Form A	21	+081	-008 to +215
Form B	21	+058	-059 to +166
Stability	21	16	01 to 68
High-Stability Boys			
Form A	20	+044	-099 to +196
Form B	20	+036	-185 to +160
Stability	20	09	00 to 12
Low-Stability Boys			
Form A	21	+099	-008 to +215
Form B	21	+070	-059 to +275
Stability	21	27	15 to 68

*The stability score is the difference between the percentile rank of
the Form-A M-F score and the Form-B M-F score. Scores of 00-12 indicate
high stability; scores of 13 and above indicate low stability.

TABLE IV

DISTRIBUTION OF M-F TEST SCORES
FOR GIRLS

| | | M-F Test Scores | |
	N	Median	Range
All Girls **(3:0-5:9)**			
Form A	48	-090	-238 to +104
Form B	48	-097	-251 to +075
Stability*	48	18	00 to 73
Older Girls **(4:4-5:9)**			
Form A	26	-151	-238 to +096
Form B	26	-119	-251 to +066
Stability	26	09	00 to 73
Younger Girls **(3:0-4:3)**			
Form A	22	-050	-233 to +104
Form B	22	-074	-200 to +075
Stability	22	22	01 to 56
High-Stability Girls			
Form A	23	-152	-238 to +104
Form B	23	-145	-251 to +075
Stability	23	05	00 to 12
Low-Stability Girls			
Form A	25	-082	-188 to -033
Form B	25	-055	-200 to +050
Stability	25	29	18 to 73

*See footnote on Table III.

TABLE V

DISTRIBUTION OF BEM SEX-ROLE INVENTORY SCORES
FOR PARENTS OF BOYS

| | | Bem Scores* | |
	N	Median	Range
All Boys			
(3:0-5:9)			
Mothers	41	-0.55	-2.30 to +1.35
Fathers	36	+0.60	-0.40 to +3.10
Older Boys			
(4:4-5:9)			
Mothers	20	-0.40	-1.70 to +0.30
Fathers	18	+0.45	-0.40 to +2.75
Younger Boys			
(3:0-4:3)			
Mothers	21	-0.65	-2.30 to +1.35
Fathers	18	+0.75	-0.10 to +3.10
High-Stability Boys**			
Mothers	20	-0.40	-2.30 to +1.35
Fathers	17	+0.60	-0.15 to +3.10
Low-Stability Boys			
Mothers	21	-0.65	-2.30 to +1.35
Fathers	19	+0.60	-0.40 to +2.75

*In the present research, in order to provide consistency between
children's scores and parents' scores, all positive scores are
masculine and all negative scores are feminine.

**See footnote on Table IV.

TABLE VI

DISTRIBUTION OF BEM SEX-ROLE INVENTORY SCORES
FOR PARENTS OF GIRLS

| | N | Bem Scores* | |
		Median	Range
All Girls			
(3:0-5:9)			
Mothers	48	-0.40	-3.20 to +1.80
Fathers	38	+0.75	-0.75 to +3.20
Older Girls			
(4:4-5:9)			
Mothers	27	-0.55	-3.20 to +1.80
Fathers	20	+0.55	-0.75 to +2.30
Younger Girls			
(3:0-4:3)			
Mothers	21	-0.30	-2.55 to +0.45
Fathers	18	+0.75	-0.15 to +3.20
High-Stability Girls**			
Mothers	23	-0.30	-2.20 to +1.80
Fathers	17	+0.75	-0.75 to +2.60
Low-Stability Girls			
Mothers	25	-0.55	-3.20 to +1.10
Fathers	21	+0.80	-0.15 to +3.20

*In the present research, in order to provide consistency between
children's scores and parents' scores, all positive scores are
masculine and all negative scores are feminine.

**See footnote on Table III.

evident in a comparison of the number of androgynous scores and the number of high-masculine and high-feminine scores. These data are presented in Table VIII. Among the high-stability children, 16 of the 20 boys had androgynous scores, and 18 of the 23 girls had high-feminine scores $(X^2 = 14.38;$ $\underline{p} < .001)$.

The question was raised as to whether there were either sex or age differences in stability scores. Chi-square analysis showed no sex differences and no age differences for the boys; but for the girls there was a significant age difference. More older girls than younger girls showed high stability in their expressed masculinity-femininity. These data are presented in Table IX.

Relationship Between Children's M-F Scores and Parents' Bem Scores

Spearman rank correlations were used to analyze the relationships between the M-F test scores of boys and the Bem scores of their parents. These correlations are presented in Table X. There were no significant relationships between the boys' M-F test scores and the Bem scores of mothers and fathers; however, for the older boys the correlation between Form-A scores and mothers' scores suggested a negative relationship, i.e., the more feminine the mother, the less masculine the boy (rho = -0.374; $\underline{p} = .100$).

Spearman rank correlations were used to analyze the relationships between the M-F test scores of girls and the Bem scores of their parents. These correlations are presented in Table XI. There were no significant relationships between the girls' M-F test scores and the Bem scores of their fathers; however there were positive correlations between the

TABLE VII

MDEIAN M-F TEST SCORES AND PERCENTILE
RANKS FOR BOYS AND GIRLS

| | N | M-F Test Scores | | Mann-Whitney U-Test | |
		Median Score	Percentile Rank	U	p
Form-A					
All Boys	41	+076	67	564	<.0003
All Girls	48	-090	34		
High-Stability					
Boys	20	+044	84	72	<.0001
Girls	23	-152	16		
Form-B					
All Boys	41	+047	67	689.5	<.01
All Girls	48	-097	46		
High-Stability					
Boys	20	+036	72	78.5	<.0002
Girls	23	-145	22		

TABLE VIII

CHI-SQUARE ANALYSIS OF FORM-B M-F TEST
SCORES OF HIGH-STABILITY
BOYS AND GIRLS

| | | M-F Test Scores* | |
	N	Androgynous	High M-F
Boys	20	16	04
Girls	23	05	18

$x^2 = 14.38$; p $<$ .001.

*High-Masculine and high-feminine scores are those with percentile
ranks within the range 01-50.
Androgynous scores are those with percentile ranks within the range
51-100.

TABLE IX

CHI-SQUARE ANALYSIS OF M-F TEST
STABILITY SCORES BY
AGE AND SEX

| | N | Stability Scores | | x^2 | p |
		Low	High		
Boys					
Older	20	09	11	0.562	n.s.
Younger	21	12	09		
Girls					
Older	23	07	16	4.119	<.05
Younger	25	15	10		
Older					
Boys	20	09	11	1.024	n.s.
Girls	23	07	16		
Younger					
Boys	21	12	09	1.057	n.s.
Girls	25	15	10		

girls' M-F test scores and the Bem scores of their mothers, i.e., the more feminine the mother, the more feminine the girl. This was particularly true for the older girls and the high-stability girls (For older girls: Form-A, rho = +0.424, p = .029; Form-B, rho = +0.367, p = .062. For high-stability girls: Form-A, rho = +0.417, p = .050; Form-B, rho = +0.524, p = .011).

High-Masculine, High-Feminine and Androgynous Parents

The question was raised as to whether the M-F test scores of children whose parents are androgynous were different from the test scores of children whose mothers are high-feminine and whose fathers are high-masculine. For this analysis Form-B of the M-F test was used rather than Form-A because young children may be more free during the second test session than they are during the first.

The Mann-Whitney U test was used in the analysis of the children's Form-B test scores and stability scores in relation to the parents' Bem scores. No significant differences were found for either boys or girls. Children whose parents were androgynous had M-F scores similar to those of children whose mothers were high-feminine and whose fathers were high-masculine. These findings are presented in Table XII.

The question was raised as to whether a relationship might exist between the M-F test scores of high-stability children and the Bem scores of their parents. High-stability children were chosen because of the consistency of their expressed masculinity or femininity. It was assumed that an analysis of the relationship between these children's test scores and those of their parents would be more valid than an analysis which

TABLE X

SPEARMAN RANK CORRELATIONS* BETWEEN BEM SCORES
FOR PARENTS AND M-F TEST SCORES FOR BOYS

| M-F Test | Bem Sex-Role Inventory** | |
	Mothers	Fathers
All Boys		
(3:0-5:9)	(N = 41)	(N = 36)
Form A	-0.071	-0.012
Form B	-0.180	+0.024
Stability	+0.113	+0.080
Older Boys		
(4:4-5:9)	(N = 20)	(N = 18)
Form A	-0.374	+0.042
Form B	-0.330	-0.134
Stability	+0.187	-0.003
Younger Boys		
(3:0-4:3)	(N = 21)	(N = 18)
Form A	+0.237	+0.051
Form B	+0.012	+0.330
Stability	+0.048	+0.050
High-Stability Boys	(N = 20)	(N = 17)
Form A	-0.075	+0.169
Form B	-0.088	+0.040
Stability	+0.110	+0.337
Low-Stability Boys	(N = 21)	(N = 19)
Form A	+0.002	-0.231
Form B	-0.135	-0.069
Stability	-0.192	+0.176

*No correlations were significant.

**In the present research, in order to provide consistency between
children's scores and parents' scores, all positive scores are
masculine and all negative scores are feminine.

TABLE XI

SPEARMAN RANK CORRELATIONS* BETWEEN BEM SCORES
FOR PARENTS AND M-F TEST SCORES FOR GIRLS

	M-F Test	Bem Sex-Role Inventory**	
		Mothers	Fathers
All Girls (3:0-5:9)		(N = 48)	(N = 38)
	Form A	+0.303; p=.033	-0.023
	Form B	+0.319; p=.025	-0.102
	Stability	+0.106	+0.083
Older Girls (4:4-5:9)		(N = 26)	(N = 20)
	Form A	+0.424; p=.029	+0.052
	Form B	+0.367; p=.062	+0.058
	Stability	+0.159	+0.200
Younger Girls (3:0-4:3)		(N = 22)	(N = 18)
	Form A	+0.162	-0.194
	Form B	+0.332	-0.331
	Stability	+0.176	-0.161
High-Stability Girls		(N = 23)	(N = 16)
	Form A	+0.417; p=.050	-0.155
	Form B	+0.524; p=.011	+0.101
	Stability	+0.015	-0.155
Low-Stability Girls		(N = 25)	(N = 22)
	Form A	+0.188	+0.097
	Form B	+0.047	-0.232
	Stability	-0.076	-0.069

*Except where shown, no correlations were significant.

**In the present research, in order to provide consistency between
children's scores and parents' scores, all positive scores are
masculine and all negative scores are feminine.

included the less stable children. The Mann-Whitney U test was used in this analysis, and fathers and mothers were considered separately. No significant differences were found; however, the findings suggest that it is possible that the girls with androgynous mothers may be more feminine than those with high-feminine mothers ($U = 33.5$; $p > .10$). These findings are presented in Table XIII.

Sex Differences Among High-Stability Children

The question was raised as to whether there were sex differences in the M-F scores of high-stability children. To answer this question, boys and girls were grouped according to the Bem scores of their parents, and the Mann-Whitney U test was used to analyze for sex differences. In this analysis, it was necessary to use percentile ranks, rather than raw scores, in order to make the M-F test scores of boys and girls comparable. (A percentile rank of "one" indicates a high-masculine or a high-feminine score.)

Significant sex differences were found between the M-F scores of boys and girls with androgynous mothers and also between the scores of boys and girls with high-masculine fathers. For the mothers who were androgynous, the boys were low-masculine (median M-F score = +034; percentile rank = 73) and the girls were high-feminine (median M-F score = -169; percentile rank = 14) ($U = 16$; $p < .02$). For the fathers who were high-masculine, the same sex differences existed for the children. The boys were low-masculine (median M-F score = +026; percentile rank = 76) and the girls were high-feminine (median M-F score = -099; percentile rank = 45) ($U = 06$; $p < .02$). These data are presented in Table XIV.

TABLE XII

DISTRIBUTION AND ANALYSIS OF M-F TEST SCORES FOR CHILDREN WHOSE PARENTS
ARE ANDROGYNOUS AND THOSE WHO ARE HIGH-MASCULINE AND
HIGH-FEMININE

Children's Scores	Parents						Mann-Whitney U test	
	High-M and High-F			Androgynous				
	N	Median	Range	N	Median	Range	U	p
Boys								
Form-B	10	+049	-059 to +201	11	+088	-040 to +166	59	n.s.
Stability	10	16	09 to 68	11	15	01 to 51	63	n.s.
Girls								
Form-B	10	-104	-038 to -145	11	-079	+066 to -242	51.5	n.s.
Stability	10	18	02 to 32	11	20	02 to 56	45	n.s.

TABLE XIII

DISTRIBUTION AND ANALYSIS OF THE M-F TEST SCORES
OF HIGH STABILITY CHILDREN IN RELATION
TO BEM SCORES OF PARENTS

| | N | M-F Test Scores, Form B | | Mann-Whitney U-test | |
		Median	Range	U	p
Fathers of Boys					
High-Masculine	07	+026	-185 to +160	30.5	n.s.
Androgynous	10	-002	-185 to +144		
Mothers of Boys					
High-Feminine	09	+010	-185 to +160	37.5	n.s.
Androgynous	10	+034	-185 to +144		
Fathers of Girls					
High-Masculine	09	-099	-074 to -251	29	n.s.
Androgynous	07	-112	+075 to -251		
Mothers of Girls					
High-Feminine	09	-112	+075 to -185	33.5	>.10
Androgynous	12	-169	+066 to -251		

TABLE XIV

DISTRIBUTION AND ANALYSIS OF SEX DIFFERENCES IN THE M-F TEST SCORES OF HIGH-
STABILITY CHILDREN IN RELATION TO BEM SCORES OF PARENTS

	M-F Test Scores, Form-B						Mann-Whitney U-test	
	High-Stability Boys			High-Stability Girls				
		Percentile Ranks			Percentile Ranks			
	N	Median	Range	N	Median	Range	U	p
Mothers								
High-Feminine	09	83	25 - 99	09	40	10 - 95	21.5	>.10
Androgynous	10	73	28 - 99	12	14	01 - 95	16	<.02
Fathers								
High-Masculine	07	76	25 - 99	09	45	01 - 57	06	<.02
Androgynous	10	88	28 - 99	07	40	01 - 95	24.5	n.s.

Summary of Findings

1. The majority of boys scored low-masculine (androgynous) on the M-F test and the majority of girls scored high-feminine. This difference was significant and was particularly true of high-stability children.

2. There were no sex differences in stability scores, and there were no age differences in stability scores for boys; but for the girls there was a significant age difference. More older girls than younger girls showed high stability.

3. There were no significant relationships between boys' M-F test scores and the Bem scores of their fathers and mothers.

4. There were no significant relationships between girls' M-F test scores and the Bem scores of their fathers. There was a positive relationship between girls' M-F test scores and the Bem scores of their mothers, i.e., the more feminine the mother, the more feminine the girl. This was particularly true for the older girls and for the high-stability girls.

5. There was no difference between the M-F test scores of children whose parents were androgynous and the test scores of children whose mothers were high-feminine and whose fathers were high-masculine.

6. There were significant sex differences between the M-F scores of boys and girls with androgynous mothers; the boys were low-masculine and the girls were high-feminine. This same sex difference existed for the children whose fathers were high-masculine.

CHAPTER V

SUMMARY AND DISCUSSION

The purpose of this study was to investigate the relationship be-
tween the masculinity and femininity of preschool children and the mas-
culinity, femininity and androgyny of their parents. Age differences
and sex differences in the relationship between the children's masculi-
nity-femininity and that of their parents were examined in an attempt to
gain an increased understanding of sex-role identification.

The subjects who participated in this study were 48 girls and 41
boys, ranging in age from three years, no months to five years, nine
months, and their parents. For 74 of the children both the mother and
the father participated in the study; for the remaining 15, only the
mothers participated.

Two research instruments, both developed to measure masculinity-
femininity, were selected for use in this research. For the children,
the Starkweather Masculinity-Femininity Test was used. It is a test in
which the children are offered picture choices and each child actually
constructs a picture booklet which he keeps. It is a test which children
enjoy. A major advantage of the test is that it is designed so that the
evaluation of what is masculine or what is feminine is based on the chil-
dren's picture choices rather than on adult judgments. For the parents,
the Bem Sex-Role Inventory was used. In this Inventory each parent rates
himself on various masculine and feminine characteristics. The scoring

is designed to identify individuals as masculine, feminine or androgynous.

The data provided by the children's M-F test scores was analyzed for sex differences and age differences in M-F scores and stability scores. The relationships between the children's M-F test scores and the parents' Bem scores were then analyzed. Spearman rank correlations, Chi-square and Mann-Whitney U test were used for these analyses.

The findings of this research were as follows: (1) The majority of boys scored low-masculine (androgynous) on the M-F test and the majority of girls scored high-feminine. This difference was significant and was particularly true of high-stability children. (2) There were no sex differences in stability scores, and there were no age differences in stability scores for boys; but for the girls there was a significant age difference. More older girls than younger girls showed high stability. (3) There were no significant relationships between boys' M-F test scores and the Bem scores of their fathers and mothers. (4) There were no significant relationships between girls' M-F test scores and the Bem scores of their fathers. There was a positive relationship between girls' M-F test scores and the Bem scores of their mothers, i.e., the more feminine the mother, the more feminine the girl. This was particularly true for the older girls and for the high-stability girls. (5) There was no difference between the M-F test scores of children whose parents were androgynous the the test scores of children whose mothers were high-feminine and whose fathers were high-masculine. (6) There were significant sex differences between the M-F scores of boys and girls with androgynous mothers; the boys were low-masculine and the girls were high-feminine. This same sex difference existed for the children whose fathers were

high-masculine.

Discussion

In the present study, the boys tended to be low-masculine and the
girls tended to be high-feminine. This is different from the findings
of previous research, which has shown girls to be later in developing
feminine sex-role preferences than boys are in developing masculine sex-
role preferences (Hetherington, 1965; Kohlberg and Zigler, 1967; Brown,
1957). Among the parents it was the androgynous mothers and the high-
masculine fathers particularly who had the low-masculine boys and high-
feminine girls. One possible explanation of this relationship comes from
Sears, Rau and Alpert (1965) who found that a non-permissive attitude
toward sexual and aggressive behavior and the use of physical punish-
ment by the parents encouraged feminine behavior.

Another possible explanation is that androgynous mothers are accep-
ting of the sex-role preferences of their children and are giving boys
the opportunity to express some feminine traits without fearing they
will lose their masculinity. This may be a result of the increased em-
phasis on the non-sexist training of young children. However, non-sex-
ist literature stresses that girls should be free to take part in
activities and interests usually accepted as masculine. If non-sexist
training had this influence, one might expect the young girls to be less
feminine and the young boys to be more masculine. The reverse was true
of the children in the present study. Perhaps instead of freeing girls
to be less feminine, the non-sexist movement is freeing boys to be less
masculine.

The high stability of expressed masculinity-femininity shown by

both boys and girls in this study is different from the findings of previous research. Davidson (1973) found that girls showed greater stability in M-F scores from test to retest than did boys. The high stability of the boys in the present study could be peculiar to the sample used. The low masculinity of these high-stable boys could show that boys identify with low masculinity at an early age and later shift to high masculinity when they are recognized as accepting the sex-role standard. The older girls' high stability was to be expected, since, as they become older, children's sex roles become more established.

Mothers continue to be strong role models for their daughters as shown in the present study by the high-feminine mothers with the high-feminine daughters. This finding agrees with the conclusion of Fling and Manosevitz (1972) that mothers exert more effort toward their daughters' than toward their sons' sex-role identification. Finding androgynous mothers with high-feminine daughters suggests that when girls are given more latitude, they still may choose the feminine role. With the high-feminine mothers or the androgynous mothers, the high femininity of the girls may be attributed to the girls' perceiving their mothers as warm (Lynn, 1962).

The high-masculine fathers with high-feminine duaghters in the present study agrees with research that has shown the father's expectations determining the daughter's role (Biller and Weiss, 1970). With high-masculine fathers as role models, the low masculinity of the boys could be due to (1) the father not being dominant in the home (Hetherington, 1965; Biller, 1969); (2) the boys' fear of not measuring up and not trying to be masculine; (3) the boys' fear of punishment from the dominant father; (4) paternal nurturance not producing male sex-role preference

(Radin, 1972). Perhaps the non-sexist emphasis in our society allows boys to feel free to reject the masculine stereotype, at this young age.

Implications for Future Research

In future research, a larger sample of middle-class children could be used to find out if they scored differently from those in the present study. If more high-masculine boys were found, their relationship with their parents could be examined. This was not possible in this study because of the large number of low-masculine boys.

A sample of lower-class children could be compared with the middle-class sample to find differences between and within the socioeconomic classes. These results could shed light on the seemingly unusual differences in sex-role identification evident in the present study.

Mothers who have become a part of the Women's Liberation Movement could be tested with the Bem Sex-Role Inventory to find out whether they are androgynous, or whether more of them might be high-feminine.

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APPENDIX A

TABLE XV

DESCRIPTIVE DATA AND TEST SCORES OF
INDIVIDUAL BOYS AND THEIR PARENTS

| Sex and | | Starkweather M-F Test | | | | | Bem Sex-Role Inventory* | |
| | | Form-A | | Form-B | | Stability | Androgyny Difference Score | |
Code No.	Age	Score	Rank	Score	Rank	Score	Mothers	Fathers
M-2345	3:0	+215	06	+067	57	51	+0 45	+1 45
M-2318	3:2	+073	68	-013	91	23	+1 35	-----
M-2325	3:2	+080	66	+088	47	19	-0 40	+0 35
M-2319	3:3	-008	96	+003	86	10	-2 15	+3 10
M-2395	3:3	+011	93	+052	66	27	-1 35	+0.20
M-2125	3:4	+098	55	+058	63	08	+0.95	-----
M-2338	3:5	+157	30	+141	29	01	-0.80	+0.30
M-2330	3:5	+037	87	+026	76	11	+0.25	+1.35
M-2394	3:5	+095	57	+093	45	12	-0.20	+0.55
M-2334	3:6	+081	65	+162	24	41	-0.30	+0.80
M-2390	3:6	+171	23	+111	39	16	-1.25	+1.80
M-2389	3:6	-007	96	+062	60	36	-2.30	+1.40
M-2388	3:7	+103	54	-004	90	36	-1.05	-0.10
M-2322	3:10	+147	37	+070	56	19	-1.25	+1.10
M-2384	3:10	+050	80	+041	69	11	+0.50	+0.75
M-2383	3:10	+073	68	+052	66	02	-0.55	+0.20
M-2341	3:11	+033	88	+020	79	09	-2.15	+1.85
M-2295	4:1	+076	67	+078	52	15	-1.90	-0.60
M-2337	4:1	+099	55	+166	23	32	-0.65	-0.05
M-2293	4:3	+094	57	+047	67	10	-0.55	-----
M-2375	4:3	+160	28	-059	96	68	-1.05	+2.15
M-2326	4:4	-085	98	-039	95	03	-1.40	+0.60
M-2373	4:4	-003	96	+093	45	51	-0.40	-0.10
M-2372	4:4	+057	74	+010	83	09	-1.00	+0.45
M-2132	4:5	+110	51	+016	80	29	+0.65	-----
M-2336	4:6	+015	92	-007	91	01	-0.50	+0.60
M-2369	4:6	+060	73	-002	89	16	-0.75	+0.90
M-2283	4:7	+030	89	-043	95	06	-0.40	-0.15
M-2366	4:8	+197	13	+110	39	26	-1.70	-0.40
M-2365	4:8	+139	40	+144	28	12	+0.65	+0.15
M-2362	4:8	+157	30	+095	45	15	-0.60	+0.05
M-2340	4:9	+085	64	+012	82	18	-0.15	+0.10
M-2361	4:9	-007	96	+021	78	18	-0.30	+0.60
M-2360	4:9	-013	96	-040	95	01	+0.70	+0.10
M-2291	4:11	-099	99	-185	99	00	+0.75	+0.35
M-2356	5:0	+044	84	+036	72	12	-1.40	+1.50
M-2354	5:1	+127	43	+201	12	31	-1.20	+2.75
M-2170	5:3	+137	41	+275	01	40	-0.05	+1.95
M-2129	5:4	+010	93	+013	82	11	+0.40	-----
M-2280	5:5	-016	96	-139	99	03	+0.10	+2.10
M-2292	5:9	+196	14	+160	25	11	-1.55	+1.35

TABLE XVI

DESCRIPTIVE DATA AND TEST SCORES OF
INDIVIDUAL GIRLS AND THEIR PARENTS

Sex and Code No.	Age	Starkweather M-F Test				Stability Score	Bem Sex-Role Inventory*	
		Form-A		Form-B			Androgyny Difference Score	
		Score	Rank	Score	Rank		Mothers	Fathers
F-2349	3:0	-021	58	+041	91	33	+0.15	+1.25
F-2343	3:0	-035	55	-006	77	22	-0.15	+0.55
F-2321	3:0	-064	43	-169	14	29	-0.30	+1.05
F-2339	3:1	-054	46	-096	47	01	-0.10	+2.60
F-2396	3:1	-109	30	-055	62	32	-0.60	+0.05
F-2107	3:3	-011	61	+039	91	30	-2.25	-----
F-2346	3:5	-039	53	-099	45	08	-0.30	+0.80
F-2393	3:5	-088	34	-079	54	20	+0.45	000
F-2113	3:6	-052	47	-010	76	29	-0.85	-----
F-2316	3:6	-002	64	+050	93	29	-1.80	-0.15
F-2392	3:6	-233	02	-169	14	12	-0.15	+2.00
F-2387	3:8	-117	28	-190	09	19	+0.30	+0.30
F-2386	3:9	-022	58	+022	86	28	+0.45	+1.55
F-2385	3:9	+005	68	-074	57	11	-0.35	+0.75
F-2382	3:11	-050	48	-036	66	18	-2.55	+1.55
F-2381	3:11	-118	28	+013	84	56	-0.55	+0.35
F-2380	3:11	-082	37	-200	08	29	-0.15	-----
F-2379	4:0	-162	14	-097	46	32	-0.75	+3.20
F-2108	4:2	-014	59	-094	48	11	+0.10	-----
F-2378	4:2	-090	34	-131	29	05	-1.55	+0.85
F-2377	4:2	-053	46	+003	81	35	-1.90	+0.50
F-2374	4:3	+104	92	+075	96	04	-1.25	+0.05
F-2278	4:4	-167	12	-038	66	54	-0.95	-0.10
F-2109	4:4	-186	07	-237	02	05	+1.80	-----
F-2284	4:5	-238	02	-239	02	00	+0.05	-----
F-2370	4:5	-024	57	-091	49	08	-1.05	+2.30
F-2329	4:6	-184	07	-119	35	28	-0.40	+0.15
F-2368	4:6	-188	07	-114	38	31	+1.10	+2.00
F-2367	4:7	+096	91	+050	93	02	-1.95	000
F-2275	4:7	-211	04	-242	01	03	-0.30	+1.05
F-2282	4:8	-164	13	-145	22	09	-0.95	+0.85
F-2347	4:8	-025	57	-123	33	24	-3.10	+1.00
F-2364	4:8	-046	51	-112	40	11	-1.25	-0.05
F-2363	4:8	-034	55	-074	57	02	-0.85	+2.15
F-2350	4:10	-152	16	-193	09	07	+0.90	-0.75
F-2359	4:10	-129	22	-110	40	18	-3.20	+0.90
F-2358	4:11	-150	16	-180	11	05	-0.05	-0.35
F-2357	4:11	-139	19	+046	92	73	-0.55	+0.80
F-2274	5:1	-183	08	-116	37	29	-1.35	+1.75
F-2103	5:1	-003	63	+034	89	26	+0.40	-----
F-2352	5:2	-121	26	-068	59	33	+0.45	000
F-2102	5:2	-204	04	-166	14	10	-0.10	-----
F-2353	5:2	+015	72	-081	54	18	-1.10	+1.05
F-2351	5:3	+055	84	+066	95	11	-0.50	000
F-2159	5:3	-220	03	-251	01	02	-0.20	+0.55
F-2116	5:5	-173	10	-185	10	00	-0.85	-----
F-2277	5:8	-151	16	-167	14	02	+0.60	-0.05
F-2285	5:9	-158	15	-147	21	06	-1.10	-----

APPENDIX B

Dear Parents,

As a personal favor to me, will you please fill out the
enclosed forms and return them to me as soon as possible? This
is a part of the information that I am gathering for my master's
thesis. I am interested in learning through my research whether
there is a relationship between parents' personality characteris-
tics (masculinity-femininity) and young children's apparent mas-
culine and feminine preferences. It is logical to expect such
a relationship to exist.

The enclosed forms contain a list of 60 personality charac-
teristics, and you are asked to indicate the extent to which each
is typical of you. Some of these characteristics you will recog-
nize as masculine, while others are feminine, and still others
are neither masculine nor feminine. By your responses you will
show where, on a masculinity-femininity continum, you place
yourself insofar as these characteristics are concerned.

Will you also please give consent for your child to take part
in my research? For the children, I have booklets of pictures in
which each child chooses the picture he likes and is then given
a set of these pictures to keep. Some pictures are preferred
more by boys (masculine pictures), and others are preferred more
by girls (feminine pictures). Each child shows by his choices
whether he likes the masculine and feminine pictures equally well
or whether he has a real preference for one or the other.

Inasmuch as the children are given packets of pictures to
keep, I do want every child to participate so that no one will be
left out. I hope that you will let your child do so. This I will
appreciate.

Please know that the information which you give me will be
treated as confidential and will be shared with no one. If you
wish, when my research has been completed, I will be happy to
share the results with you.

<div style="text-align:right">

Sincerely yours,

Deanna Homer

</div>

Stillwater, Oklahoma
74074

May 12, 1976

Dear Parents:

At this time I want to thank you for your helpful cooperation with
my Masters' thesis research. As a result of the research, I have
some data I would like to share with you.

The graph below shows you where your child's scores placed him on
the masculinity-femininity scales for each of the two tests he was
given. This scale includes the range of scores for our preschool
only.

The mother's and father's scores are placed according to where they
fell on the same masculinity-femininity range. From these placements,
you can see the relationship between the way you rated yourself and
the masculinity or femininity shown by your child at this time in his
life. A large number of children have not established their masculin-
ity or femininity at this early age. This is shown on the graph where
the check marks are far apart.

Again I want to thank you for helping me with my research. Please
contact me personally if you have any questions.

Sincerely yours,

Deanna Homer

DH/ds

MOTHER
_____

FATHER
_____

_____

_____

| | High
Fem. | | Neutral or
Androgenous | | High
Masc. |

APPENDIX C

BEM SEX-ROLE INVENTORY[1]

The Bem Sex-Role Inventory (BSRI) is a new sex-role inventory that treats masculinity and femininity as two independent dimensions, thereby making it possible to characterize a person as masculine, feminine or androgynous as a function of the difference between his or her endorsement of masculine or feminine personality characteristics. It contains a number of features that distinguish it from other, commonly used, masculinity-femininity scales, for example, the Masculinity-Femininity scale of the California Psychological Inventory (Gough, 1957). First it includes both a Masculinity scale and a Femininity scale, each of which contains 20 personality characteristics. These characterisitis are listed in the first and second columns of Table 1, respectively. Second, because the BSRI was founded on a conception of the sex-typed person as someone who has internalized society's sex-typed standards of desirable behavior for men and women, these personality characteristics were selected as masculine or feminine on the basis of differential endorsement by males and females as most other inventories have done. That is, a characteristic qualified as masculine if it was judged to be more desirable in American society for a man than for a woman, and it qualified as feminine if it was judged to be more desirable for a woman than a man. Third, the BSRI characterizes a person as masculine, feminine, or androgynous as a function of the difference between his or her endorsement of masculine and feminine personality characteristics. A person is thus sex-typed, whether masculine or feminine, to the extent that this difference score is high, and androgynous, to the extent that this difference score is low. Finally, the BSRI also includes a Social Desirability scale that is completely neutral with respect to sex. This scale now serves primarily to provide a neutral context for the Masculinity and Femininity scales, but it was utilized during the development of the BSRI to insure that the inventory would not simply be tapping a general tendency to endorse socially desirable traits. The 20 characteristics that make up this scale are listed in the third colomn of Table 1.

The BSRI asks a person to indicate on a 7-point scale how well each of the 60 masculine, feminine, and neutral personality characteristics describes himself. The scale ranges from 1 ("Never or almost never true") to 7 ("Always or almost always true") and is labeled at each point. On the basis of his responses, each person receives three major scores: a Masculinity score, a Femininity score and, most important, an Androgyny score. In addition, a Social Desirability score can also be computed.

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[1]This information is adapted from Bem, S.L. The measurement of psychological androgyny. Journal of Consulting and Clinical Psychology, 1974, 42 (2), 155-162.

Scoring

The Masculinity and Femininity scores indicate the extent to which a person endorses masculine and feminine personality characteristics as self-descriptive. Masculinity equals the mean self-rating for all endorsed masculine items, and Femininity equals the mean self-rating for all endorsed feminine items. Both can range from 1 to 7. It will be recalled that these two scores are logically independent. That is, the structure of the test does not constrain them in any way, and they are free to vary independently. The Androgyny score reflects the relative amounts of masculinity and femininity that the person includes in his or her self-description, and as such, it best characterizes the nature of the person's total sex role.

It should be noted that the greater the absolute value of the Androgyny score, the more the person is sex-typed or sex reversed, with high positive scores indicating femininity and high negative scores indicating masculinity. A "masculine" sex role thus represents not only the endorsement of masculine attributes but the simultaneous rejection of feminine attributes. Similarly, a "feminine" sex role represents not only the endorsement of feminine attributes, but the simultaneous rejection of masculine attributes. In contrast, the closer the Androgyny score is to zero, the more the person is androgynous. An "androgynous" sex role thus represents the equal endorsemtns of both masculine and feminine attributes.

TABLE 1

ITEMS ON THE MASCULINITY, FEMININITY, AND SOCIAL DESIRABILITY SCALES OF THE BSRI

Masculine Items	Feminine Items	Neutral Items
49. Acts as a leader	11. Affectionate	51. Adaptable
46. Agressive	5. Cheerful	36. Conceited
58. Ambitious	50. Childlike	9. Conscientious
22. Analytical	32. Compassionate	60. Conventional
13. Assertive	53. Does not use harsh language	45. Friendly
10. Athletic	35. Eager to soothe hurt feelings	15. Happy
55. Competitive	20. Feminine	3. Helpful
4. Defends own beliefs	14. Flatterable	48. Inefficient
37. Dominant	59. Gentle	24. Jealous
19. Forceful	47. Gullible	39. Likable
25. Has leadership abilities	56. Loves children	6. Moody
7. Independent	17. Loyal	21. Reliable
52. Individualistic	26. Sensitive to needs of others	30. Secretive
31. Makes decisions easily	8. Shy	33. Sincere
40. Masculine	38. Soft spoken	42. Solemn
1. Self-reliant	23. Sympathetic	57. Tactful
34. Self-sufficient	44. Tender	12. Theatrical
16. Strong personality	29. Understanding	27. Truthful
43. Willing to take a stand	41. Warm	18. Unpredictable
28. Willing to take risks	2. Yielding	54. Unsystematic

Note: The number preceding each item reflects the position of each adjective as it actually appears on the Inventory.

BEM SEX-ROLE INVENTORY

DIRECTIONS AND SCORE SHEET

On the next page you will see a large number of personality characteristics. We would like you to use these characteristics to describe yourself. That is, we would like you to indicate, on a scale from 1 to 7, how true of you these various characteristics are. Please do not leave any characteristic unmarked.

Example: sly

        Mark a 1 if it is <u>NEVER OR ALMOST NEVER TRUE</u> that you are sly.

        Mark a 2 if it is <u>USUALLY NOT TRUE</u> that you are sly.

        Mark a 3 if it is <u>SOMETIMES BUT INFREQUENTLY TRUE</u> that you are sly.

        Mark a 4 if it is <u>OCCASIONALLY TRUE</u> that you are sly.

        Mark a 5 if it is <u>OFTEN TRUE</u> that you are sly.

        Mark a 6 if it is <u>USUALLY TRUE</u> that you are sly.

        Mark a 7 if it is <u>ALWAYS OR ALMOST ALWAYS TRUE</u> that you are sly.

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

Sly	3
Malicious	1

Irresponsible	7
Carefree	5

DESCRIBE YOURSELF

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

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

APPENDIX D

STARKWEATHER MASCULINITY-FEMININITY TEST

FOR PRESCHOOL CHILDREN[1]

A Test of Sex-Role Identification

developed by

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Stillwater, Oklahoma

The Starkweather Masculinity-Femininity Test (M-F Test) measures the masculine and feminine preferences of preschool children. The test is designed so that the evaluation of what is masculine and what is feminine is based on the preferences of the children tested, and not on adult judgments of masculinity and femininity. The underlying assumption is that boy-behavior is masculine and girl-behavior is feminine regardless of any adult judgments to the contrary.

Two comparable forms of the Starkweather M-F Test have been developed, Form-A and Form-B. The materials for each form include a picture booklet of 20 pages and individually mounted pictures, identical to those in the booklet. The pages in the test booklet are of colored hi-gloss paper, approximately 3" x 8" in size. A variety of colors is available and no color is used for more than two pages in either test booklet. On each page there are three pictures (gummed seals) which are arbitrarily selected as masculine, feminine, and neutral. The placement of masculine and feminine pictures on each page is done for the purpose of maximizing the power of the test to discriminate between the preferences of boys and girls. The pictures themselves are commercially produced gummed seals and include a variety of objects such as animals, cars, babies, flowers, cowboys, and Mother Goose figures. The individually mounted pictures are placed on small pieces of hi-gloss paper, approximately 2" x 3", the same color as the test booklet pages on which the pictures appear.

The administration of the two forms of the Starkweather M-F Test, as a test and a retest with an interval of approximately one week between the two, provides (1) two M-F Test scores, which indicate the extent to which a child's picture preferences are masculine or feminine, and (2) a stability score, which indicates the stability of a child's preferences from one test to the next and which is an index of the extent to which a child has identified with the sex-role suggested by his expressed masculinity or femininity.
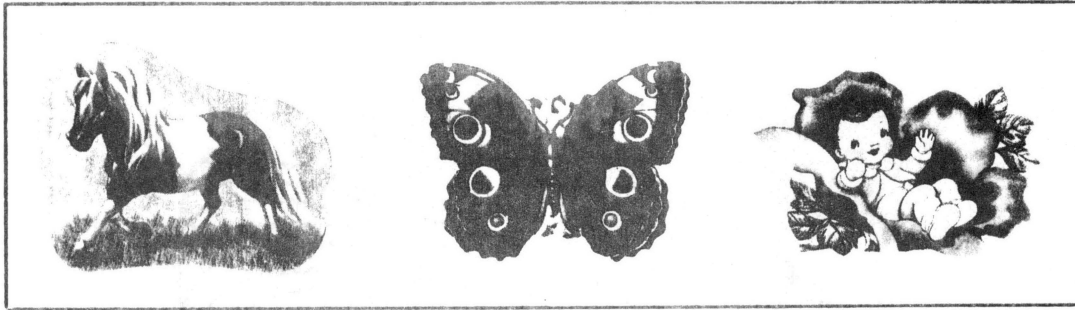

Administration

The Starkweather M-F Test is designed for administration to individual children. Each child is introduced to the test by being told that he is going to make a picture booklet of his very own. He is then shown the first page of the test booklet and is asked, "Which one of these pictures do you want?" The child makes his selection and is then given an identical picture, one of the individually mounted pictures, as the first page of his own picture book. This procedure is repeated until the child has chosen one picture from each of the 20 pages in the test booklet.

The two forms of the M-F Test are administered during two separate sessions with the child. Form-A is always administered first, and then after an interval of approximately one week, Form-B is administered.

Scoring

The scoring of the Starkweather M-F Test is designed to eliminate the bias of adult judgments. Each picture in the test booklet is assigned a score, masculine or feminine in value, which is determined by the picture choices of the children tested. For example, a picture chosen by a majority of the boys and by few of the girls is weighted heavily as masculine. The M-F score for an individual child is calculated by adding the masculine and femine values of all the pictures that he has chosen.

The method of calculating the masculine and feminine values of individual pictures is illustrated in Figures 1 and 2. The page shown in Figure 1 is from an M-F Test booklet used in several studies in which an equal number of boys and girls participated. When this is the case, the score values assigned to the pictures are calculated by subtracting the number of girls from the number of boys who choose each picture. In a 1968 study, the pony, chosen by 63 boys and 23 girls, was assigned a masculine value of +40; and the baby, chosen by 15 boys and 46 girls, was assigned a feminine value of -31. These assigned values were only for use in scoring the responses of the children who participated in the 1968 study. In a 1969 study, the assigned numerical values for these same pictures were smaller because fewer children participated in the study; nevertheless, the relative values remained the same, the pony was masculine (+20) and the baby was feminine (-17).

1968 Study	Pony	Butterfly	Baby
Boys (N = 90)	63	12	15
Girls (N = 90)	23	21	46
	———	———	———
Assigned Value	+40	-09	-31

1969 Study	Pony	Butterfly	Baby
Boys (N = 48)	35	09	04
Girls (N = 48)	15	12	21
	———	———	———
Assigned Value	+20	-03	-17

Figure 1. Method of calculating the masculine and feminine values for individual pictures in the Starkweather M-F Test.

1967 Study	Rooster	Chipmunk	Baby
Boys (N = 17)	5	9	3
Girls (N = 15)	5	3	7
Girls (weighted)	5.67	3.40	7.93
Assigned Value	-0.67	+5.60	-4.93

Figure 2. Method of calculating the masculine and feminine values for individual pictures in the Starkweather M-F Test when weighting of scores is necessary.

When an unequal number of boys and girls participate in a study, weighting is necessary in calculating the values to be assigned to the individual pictures. In Figure 2, a page from the M-F Test booklet used in a 1967 study is illustrated. In this study there were 17 boys and 15 girls. Weighing to correct for this inequality was achieved by multiplying the number of girls who chose each pictures by 1.133 (n.b., 17 ÷ 15 = 1.133). The value assigned to each picture was then calculated by using the weighted number of girls and the actual number of boys who chose each picture.

The M-F Test score sheet for Child M-2059 (Figure 3) illustrates the way in which a child's picture choices are recorded and the way in which his M-F score is calculated from the assigned values of the pictures he has chosen. Child M-2059 was one of the high-masculine boys in a 1973 study in which 92 boys and 92 girls participated.

STARKWEATHER MASCULINITY-FEMININITY TEST

FOR PRESCHOOL CHILDREN

Name _Child M-2059_   No. _M-2059_

Date _10-25-72_   Birthdate _12-26-67_   Age _4:10_

Testing Place _Village Center_   Test Form _A_

	Pictures			Score			Pictures			Score
1.	✓	__	__	+11	11.	__	__	✓	+08
2.	__	✓	__	+03	12.	__	✓	__	+13
3.	__	✓	__	+14	13.	__	__	✓	-04
4.	✓	__	__	+16	14.	__	__	✓	+08
5.	__	__	✓	+17	15.	__	✓	__	+18
6.	✓	__	__	+02	16.	✓	__	__	+15
7.	✓	__	__	+14	17.	__	__	✓	+11
8.	__	__	✓	+16	18.	__	✓	__	+22
9.	✓	__	__	-08	19.	✓	__	__	+17
10.	✓	__	__	+16	20.	__	__	✓	+15

TOTAL: _+224_

Figure 3. Sample Score Sheet

Stability scores are calculated from the M-F scores obtained by each child. For each form of the test, the scores of boys and girls are ranked separately, and each child's M-F scores are then converted to ranks, one for Form-A and one for Form-B. The difference between these two ranks indicates the stability of the child's picture preferences from one test to the next and is his stability score. The two ranks, and not the two M-F scores, must be used in this calculation. The M-F scores for each form of the test are based on the assigned values of the pictures in that form, and therefore cannot be directly compared. Examples of stability scores are presented in Table I.

Alternate Scoring Method

The scoring method described above can be used only when a relatively large group of boys and girls is being tested. In order to extend the usefulness of the test, an alternate method of scoring was developed. The alternate method simplifies the scoring and makes it possible to use the M-F Test with an individual child, with small groups of children, or with groups of one sex exclusively.

The M-F Test responses of 184 middle-class preschool children, 92 boys and 92 girls, were used in the development of tables which are needed in scoring the test responses of individual children. These tables include (1) a table of assigned picture values, and (2) tables showing the ranking of M-F scores, one table for boys and another for girls. The use of these tables in scoring any child's M-F Test responses will show his masculinity or femininity in relation to this group of 184 middle-class children, and any interpretation of test scores must take this into consideration.

The score values of individual pictures in both forms of the M-F Test are presented in Table II. These picture scores were calculated from the test responses of the 25 most stable high-masculine boys and the 25 most stable high-feminine girls, rather than from the responses of all 184 children. The assumption was that boys who were consistently high-masculine and girls who were consistently high-feminine would show the most discriminating and valid picture preferences.

The percentile ranks for M-F Test scores are presented in Table III for boys and in Table IV for girls. The scores range from the highest possible score (Rank 1) and the highest actual score (Rank 2) to the lowest actual score (Rank 99) and the lowest possible score (Rank 100). These tables are used for converting M-F Test scores to percentile ranks from which stability scores can be calculated.

A summary of the steps involved in the calculation of M-F scores, using the alternate scoring method, is as follows:(1) Use Table II to calculate the child's M-F scores from his picture choices. (2) Use Table III for boys and Table IV for girls to convert the M-F scores to percentile ranks. (3) Calculate the stability score, which is the difference between the two percentile ranks. High stability is indicated by a score of 00 to 12; and low stability is indicated by a score of 13 or more.

TABLE I

EXAMPLES OF STABILITY SCORES CALCULATED FROM
RESPONSES TO FORM-A AND FORM-B OF
THE STARKWEATHER M-F TEST

	Form-A		Form-B		Stability Score
	Score	Rank*	Score	Rank*	
High Stability					
Child M-2059	+224	04	+268	01	03
Child M-1915	+085	57	+059	56	01
Child F-1792	-216	03	-216	05	02
Child F-2046	-026	52	-053	58	06
Low Stability					
Child M-2008	+195	14	+039	65	51
Child M-1978	+053	70	+230	03	67
Child F-1958	-133	20	-019	66	46
Child F-1966	+010	66	-127	28	38

*Each child's rank is his or her position in a group of 92 like-
sexed children.

TABLE II

SCORE VALUES FOR INDIVIDUAL PICTURES IN FORM-A
AND FORM-B OF THE STARKWEATHER M-F TEST

Form-A				Form-B		
Page	Pictures*			Page	Pictures	
1	+11	-17	+06	1	+08	-09	+01
2	+08	+03	-11	2	-13	-01	+14
3	00	+14	-14	3	+01	+13	-14
4	+16	-04	-12	4	+17	-01	-16
5	+02	-19	+17	5	-04	-13	+17
6	+02	+05	-07	6	-04	+14	-10
7	+14	-19	+05	7	+16	-13	-03
8	-11	-05	+16	8	-04	-12	+16
9	-08	+05	+03	9	-07	-06	+13
10	+16	-01	-15	10	+08	+03	-11
11	+09	-17	+08	11	+08	-22	+14
12	-18	+13	+05	12	-06	-02	+08
13	+12	-08	-04	13	+15	-20	+05
14	-06	-02	+08	14	-08	-11	+19
15	-16	+18	-02	15	+04	+11	-15
16	+15	+04	-19	16	+14	+01	-15
17	+02	-13	+11	17	+03	-18	+15
18	-11	+22	-11	18	-10	+15	-05
19	+17	-10	-07	19	+18	-12	-06
20	-14	-01	+15	20	-13	-07	+20

*The score values for the three pictures on each page are presented
here in the order in which the pictures themselves appear in the
M-F Test booklets. For example, on Page 1 of Form-A, from left
to right, the pictures are a deer, a baby, and an apple; and their
respective values are +11, -17, and +06.

TABLE III

STARKWEATHER M-F TEST: CONVERSION TABLE OF
PERCENTILE RANKS FOR BOYS

Percentile Rank	Form-A M-F Score	Form-B M-F Score	Percentile Rank	Form-A M-F Score	Form-B M-F Score
1	+262	+285	51	+112	+080
2	+254	+268	52	+109	+078
3	+243	+253	53	+106	+076
4	+232	+238	54	+103	+074
5	+221	+224	55	+099	+072
6	+217	+220	56	+097	+070
7	+213	+217	57	+095	+068
8	+209	+214	58	+093	+066
9	+206	+211	59	+091	+064
10	+203	+208	60	+089	+062
11	+201	+205	61	+088	+061
12	+199	+202	62	+087	+060
13	+197	+200	63	+086	+058
14	+196	+198	64	+085	+056
15	+195	+196	65	+083	+054
16	+193	+192	66	+080	+052
17	+191	+188	67	+077	+049
18	+189	+184	68	+074	+046
19	+188	+180	69	+070	+043
20	+187	+176	70	+066	+040
21	+182	+172	71	+064	+038
22	+178	+169	72	+062	+036
23	+174	+166	73	+060	+034
24	+170	+163	74	+057	+031
25	+166	+160	75	+055	+028
26	+164	+155	76	+054	+026
27	+162	+150	77	+053	+024
28	+160	+145	78	+052	+022
29	+158	+141	79	+051	+020
30	+157	+137	80	+050	+017
31	+156	+134	81	+049	+015
32	+155	+131	82	+048	+013
33	+154	+128	83	+047	+010
34	+153	+125	84	+045	+007
35	+152	+123	85	+043	+004
36	+149	+120	86	+041	+003
37	+147	+117	87	+038	+001
38	+145	+114	88	+035	-001
39	+143	+111	89	+032	-003
40	+141	+109	90	+029	-005
41	+137	+107	91	+023	-013
42	+133	+103	92	+017	-021
43	+129	+100	93	+011	-029
44	+125	+097	94	+005	-038
45	+121	+095	95	-001	-047
46	+119	+092	96	-033	-075
47	+118	+089	97	-065	-104
48	+117	+086	98	-097	-133
49	+116	+083	99	-129	-162
50	+115	+081	100	-255	-260

TABLE IV

STARKWEATHER M-F TEST: CONVERSION TABLE OF
PERCENTILE RANKS FOR GIRLS

Percentile Rank	Form-A M-F Score	Form-B M-F Score		Percentile Rank	Form-A M-F Score	Form-B M-F Score
1	-225	-260		51	-046	-088
2	-241	-241		52	-044	-086
3	-227	-234		53	-041	-084
4	-213	-228		54	-038	-081
5	-199	-222		55	-035	-078
6	-193	-215		56	-031	-076
7	-188	-208		57	-027	-074
8	-183	-201		58	-023	-072
9	-178	-195		59	-018	-070
10	-173	-189		60	-013	-067
11	-170	-184		61	-011	-062
12	-167	-179		62	-008	-057
13	-165	-174		63	-005	-052
14	-163	-169		64	-002	-046
15	-161	-164		65	+001	-040
16	-155	-161		66	+002	-038
17	-149	-158		67	+004	-035
18	-144	-156		68	+006	-032
19	-139	-154		69	+008	-029
20	-134	-152		70	+010	-026
21	-132	-149		71	+014	-024
22	-130	-146		72	+018	-022
23	-128	-143		73	+022	-019
24	-126	-141		74	+026	-016
25	-124	-139		75	+030	-013
26	-122	-137		76	+032	-010
27	-120	-135		77	+034	-007
28	-118	-133		78	+036	-004
29	-116	-131		79	+039	-001
30	-115	-130		80	+042	+002
31	-108	-128		81	+046	+005
32	-102	-126		82	+050	+008
33	-096	-124		83	+054	+011
34	-090	-122		84	+058	+014
35	-084	-120		85	+062	+018
36	-083	-118		86	+067	+022
37	-082	-116		87	+073	+026
38	-081	-114		88	+079	+030
39	-080	-113		89	+085	+034
40	-079	-112		90	+091	+038
41	-074	-109		91	+099	+043
42	-069	-107		92	+107	+048
43	-064	-105		93	+115	+054
44	-060	-103		94	+123	+060
45	-056	-101		95	+131	+066
46	-054	-098		96	+135	+080
47	-052	-096		97	+139	+094
48	-050	-094		98	+143	+109
49	-049	-092		99	+147	+124
50	-048	-090		100	+262	+285

Sex-Role Identification

When the masculinity or femininity expressed by a child is stable, that child has identified his particular sex-role. For example, the child who consistently shows low masculinity has identified his sex-role just as clearly as the child who consistently shows high masculinity. The role may change over a period of time, but the stability of the role at a given time implies something about the child's self-concept and the security he finds in the role at that time. On the other hand, the child who is inconsistent in his expression of masculinity or femininity cannot have identified a sex-role in which he feels comfortable and secure.

The Starkweather M-F Test measures a child's sex-role identification in terms of expressed masculine or feminine preferences and the stability of these preferences from test to retest. This operational definition of sex-role identification can be illustrated by the test scores of specific children presented in Table I.

Child M-2059 was a child who had identified his sex-role as high-masculine. His M-F score of +224 on Form-A was high-masculine, as was his score of +268 on Form-B. The difference between his rank of 04 on Form-A and 01 on Form-B gave him a stability score of 03, indicating that he was stable in his high-masculine preferences from test to retest, or in other words, indicating high-masculine sex-role identification.

Child F-2046 was a child who had identified her sex-role as low-feminine. Her M-F score of -026 on Form-A was low-feminine, as was her score of -053 on Form-B. The difference between her rank of 52 on Form-A and 58 on Form-B gave her a stability score of 06, indicating that she was stable in her low-feminine preferences from test to retest, or in other words, indicating low-feminine sex-role identification.

Child M-2008 was a child who had not identified his sex-role. His score of +195 on Form-A was high-masculine and his score of +039 on Form-B was low-masculine. This lack of stability from test to retest was clearly indicated by his change in rank from 14 on Form-A to 65 on Form-B -- a change which resulted in a stability score of 51 and indicated a lack of sex-role identification.

VITA

Deanna Marie Homer

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