

**MASCULINITY IN PRESCHOOL MALES AS RELATED TO TEACHER-CHILD
INTERACTION AND PLAY MATERIAL CHOICES**

by 4589

Marlene Kay Moyer

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Approved by:

Dwalee McCord
Major Professor

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CHAPTER I

INTRODUCTION

The most basic category into which human beings, regardless of race, creed or culture, are placed is the category of sex: male or female. Associated with the obvious biological differences between boys and girls and men and women, are psychological and behavioral differences that are perhaps even more important for individual adjustment than the biological differences (McCandless, 1967).

The masculinity and femininity of human beings has been measured and studied in a number of different ways. Some of the standard measures utilize a single scale with masculinity at one end and femininity at the other end. Others measure masculinity and femininity independently (Maccoby, 1966). Biller and Borstelmann (1967) conceived masculinity and femininity as two separate, sometimes divergent, sometimes overlapping continuums and not as mutually exclusive polar opposites. Bieliauskas (1965) viewed them as complementary personality traits rather than as two competitive characteristics.

From the moment a child is born he is placed in the category of male or female, and treated in a manner prescribed by the culture as appropriate for his sex. Boys and girls from birth are repeatedly reminded of the behaviors expected of them. Awareness of sex-role differentiation begins about the second year and is relatively complete by the third or fourth year (Rabban, 1952; Seward, 1954; Brown, 1958). Aggression in boys is accepted and often encouraged while girls are encouraged to inhibit

such behavior. Girls are expected to be dependent, passive and conforming while boys are to inhibit these behaviors (Kagan, 1964). Boys are expected to prefer rough and daring games that test their physical prowess, to prefer trucks and helping father fix a chair rather than playing with dolls or helping mother with the housework. Play activities and imitation of adult activities provide the opportunity to learn much sex-typed behavior (Biller and Borstelmann, 1967). By the age of four or five years most boys and girls are aware that their parents expect them to prefer sex-typed activities (Fauls and Smith, 1956).

Masculinity has been related to a wide variety of behaviors including social acceptance, social and emotional adjustment, intelligence, leadership, anxiety, toy preferences, and success in school. The present study was initiated to explore the concept of masculinity in preschool boys. It was the purpose of this investigation to relate masculinity in preschool males, as determined by teacher ratings and ranking, to play materials used by the boys in the nursery school setting, and their interaction with teachers.

CHAPTER II

REVIEW OF LITERATURE

Theories of Identification

The major hypotheses pertaining to masculine development have been derived from theories of identification (Biller and Borstelmann, 1967). Presented here are brief accounts of the major theories relating to masculinity in young boys.

According to Freudian theory the boy desires to possess his mother during the Oedipal period when he is three to five years of age. He comes to see his father as a very aggressive competitor; and since the father is so much more powerful physically, the boy fears his father will castrate him. The normal resolution of the Oedipus complex takes place, when, in order to cope with his fear of castration, the boy identifies with his father, the aggressor, and represses his desire for his mother. Through his identification with his father, he learns to be masculine (Biller and Borstelmann, 1967).

According to Whiting's (1959) status-envy theory of identification, a young boy will learn masculine behavior only if he sees his father (or a father-surrogate) as the primary consumer of valued resources. Status-envy theory can be seen as an extension of the Freudian theory of identification-with-the-aggressor in that "identification with the aggressor is the outcome of a rivalrous interaction between the child and the parent who occupies an envied status" (Bandura and Walters, 1963, p. 94).

The learning theory of identification gives little importance to the Oedipus conflict, although it would not deny that this conflict may be frequent in some cultures. The boy in a normal family probably loves his mother best during his early childhood. But he also has an affection for his father which usually grows stronger with age. From this and general cultural influences, the boy, early in his preschool years, begins to imitate his father and eventually makes his masculine identification. In other words, learning theory postulates that a father with whom a boy identifies, in the sense of loving and respecting him, facilitates appropriate sex-role identification in his son, and that this factor, rather than fear, is a major one in successful identification (McCandless, 1967). Thus the major hypothesis of learning theory is that identification is positively related to the degree of warmth and affection the father gives his son. The more love and respect a boy has for his father the more reinforcing his father's approval will be for him (Biller and Borstelmann, 1967).

Several sociologists have presented a theory which, in essence, combines the Freudian and learning theory hypotheses. According to the role or power theory, for a boy of preschool age to become masculine, his father or another male must be the most powerful in interacting with him. The boy will identify with the person who is most able to dispense both rewards and punishments. According to Parsons, the boy identifies with the instrumental role of the father, and in this way becomes masculine (Biller and Borstelmann, 1967).

Many similarities can be seen in these theories of masculine development. All stress the significance of the father-son relationship and the boy imitating his father, although with different emphasis. Freudian theory seems

to stress the importance of the father as punitive and threatening; status-envy theory, the father as the primary consumer of resources; learning theory, the father as rewarding and affectionate; role theory, the father as the primary controller of resources. From each of these theories, it could be assumed that if the mother were more dominant than the father (in terms of the particular theory's emphasized function), the young boy would be less masculine (Biller and Borstelmann, 1967).

Sex-Role Development

The importance of sex-role adjustment is commonly recognized. It is one of the integral components of normal, satisfactory social development and adjustment. Whether a person is male or female biologically is dependent upon genetic and biological processes, but whether that person is male or female socially and psychologically (i.e., in terms of sex-role behavior) is in large measure dependent upon learning, environmental factors, and experiential development (Brown, 1956).

Shortly after children become aware of physical sex differences, but before they realize there are psychological differences, they become aware of differences in appropriate sex-role behavior. They first learn the behaviors appropriate to their sex by identifying with the parent of their sex, and by parental pressures and training. Later, by identifying with the cultural ideal and stereotype for their sex, they continue to learn appropriate sex roles (Hurlock, 1964).

Sex-Typing

Sex-typing refers to the learning process by which children learn behaviors and adjustments appropriate to their biological sex (McCandless, 1967). Using imitative or modeling behavior, young children, with or without thinking much about it, practice ways of behaving they have learned are characteristic of their sex.

Sex-typing precedes and is a part of identification, and results from a pattern of rewards and punishments administered by parents, teachers, older sisters and brothers, and playmates. By the early preschool years, many signs of sex-typing have appeared. The toy choices of children are striking even before they reach the age of three. But there is also much crossing over in the type of activity during the preschool years (McCandless, 1967).

Sex-Role Preference

Lynn (1959) made a differentiation between sex-role preference, sex-role adoption and sex-role identification. Sex-role preference refers to the desire to adopt the behavior associated with one sex or the other, or the perception of such behavior as preferable or more desirable.

Sex-role preference in children has been measured in a number of ways. One purpose of an investigation by Hartup and Zook (1960) was to obtain information concerning sex-role preference of three and four year old children. Using the It Scale for Children, clear-cut sex differences were found in the scores of the boys and girls in the study. Girls at four scored significantly more feminine than girls at three. Boys at four scored more masculine than boys at three but only at borderline significance.

These findings imply that early childhood is an important period in sex-role development, and that acquisition of sex-role preference by the male is a less complicated developmental process than for the female (Hartup and Zook, 1960).

A study of Hall and Keith (1964) examined the relation between sex-role preference and social class, and the differences in sex-role preference pattern between boys and girls. Significant findings were that boys of lower social economic class demonstrated more clearly masculine sex-role preference than boys of upper class, and boys of both classes evidenced more distinctly masculine sex-role preference than did girls evidence feminine sex-role preference. The findings of a significant difference between boys of diverse classes imply that specific traditions, attitudes, and values of social class are important in the personality development in the primary area of sex-role preference (Hall and Keith, 1964).

Sex-Role Adoption

Sex-role adoption as defined by Lynn (1959) refers to the actual adoption of behavior characteristics of one sex or the other; not simply the desire to adopt such behavior. A child may prefer the opposite sex but make adequate adoption of the behavior of his own sex.

Because of the difficulty in specifying the complexity and range of behaviors, there have been few attempts to measure sex-role adoption in young children. Koch (1956) used simple point scale rating of masculinity in her sex-role adoption study. Sears (1965 et. al.) studied the amount of time spent in sex-typed play activities.

Sex-Role Identification

Sex-role identification refers to the actual incorporation of the role of a given sex, and to the unconscious reactions characteristic of that role (Lynn, 1959). Identification may be largely an unconscious process but it is one of the most basic processes involved in socialization (McCandless, 1967).

Sex-role identification is much more difficult to measure than sex-role preference or adoption. Attempts have been made to measure sex-role identification through projective techniques such as human figure drawings (Brown and Tolor, 1957). Angrilli (1960) investigated the relationship between the degree of acceptance of masculine identification in a group of thirty preschool boys and their parents' acceptance of their own sexual identification. It was hypothesized that there would be a direct relationship between the degree to which boys accepted their masculine role and the degree to which their parents accepted their respective roles, but no significant relationship was found.

Lynn (1959), assuming the process of identification followed the laws of learning, hypothesized both male and female infants learned to identify with the mother. Later, boys but not girls must shift from their initial identification with the mother to a masculine identification. Even though girls need not shift roles and their mother is present during her development, she is affected by cultural pressures. The prestige and privileges offered males and the lack of punishment for adopting aspects of the masculine role are predicted to have a weakening affect on the girls' feminine identification, whereas these cultural expectations strengthen the boys' masculine identification.

Despite the fact boys, much more than girls, show a concern for behaving along sex-appropriate lines, there has been considerable change in the direction of both masculine and feminine roles becoming broader, less rigidly defined, less sex-typed, and more overlapping (Brown, 1958). Similarity of educational experiences, husbands doing more housework, wives holding down jobs, and the wearing apparel of both sexes are further indications of the trend toward increased similarity of sex roles.

Measurement of Masculinity

Investigators have utilized various methods to measure different aspects of sex-role development. Some of the studies attempting to measure sex-role preference, sex-role adoption, and sex-role identification were presented in the previous section. Studies attempting to measure masculinity and femininity as two separate continuums and studies attempting to measure masculinity and femininity as if they were at opposite ends of one continuum are considered in this section.

Benjamin (1932) presented six toys (car, airplane, powder, horse, girl doll, boy doll) to children to play with while he recorded which toys were chosen and the time spent with each toy. Benjamin found three toys to show conclusive sex differences; the car appeared to be a masculine toy and the boy and girl dolls were feminine toys.

DeLucia (1963) developed a Toy Preference Test as a technique for measuring sex-role identification. Pairs of toys, of determined masculinity and femininity were presented to a subject who was asked to choose with which of the two toys a pictured child of the same sex as the subject would like to play. The subjects were children in kindergarten through fourth

grade. There was an orderly increase in the number of sex-appropriate choices for both boys and girls through the third grade. Fourth graders made fewer appropriate choices than third graders. Boys made more sex-appropriate choices than girls. When children were presented with paired toys both of which were inappropriate for their sex, they chose the more appropriate one more often than if the paired toys were both appropriate for their sex. That is, when a boy was presented with two feminine toys he made more appropriate choices (chose the least feminine of the two) than he did when he was presented with two masculine toys and asked to choose between them.

Rosenberg and Sutton-Smith (1964) compared the game choices of boys and girls with those listed in the early work of Terman. These comparisons demonstrated marked changes in game preferences of boys and girls and led to the development of new play scales for the measurement of masculinity-femininity. The new scales were standardized on fourth, fifth and sixth grade children.

Brown (1956) developed the It Scale for Children for a study of the nature, patterns and differences of sex-role preference in young children. The It Scale consists of thirty-six picture cards, three by four inches, depicting various objects, figures, and activities associated with masculine or feminine roles. A child-figure drawing named It, unstructured as to sex, was used, and each subject was asked to make choices for It. In using It the assumption was made that the child would project himself or herself into the It-figure on the basis of his or her own sex-role preference, and would attribute to It the child's own role preference.

Brown found large and significant differences occurred between boys and girls, suggesting the existence of definite, relatively dichotomous

sex-role patterns in young children. A number of children in both groups evidenced a mixed preference pattern, indicating acceptance of components of both the male and female roles; this tendency was about twice as frequent in girls as in boys. Some children evidenced a strong opposite sex-role preference; this tendency was more frequent and more pronounced in girls than in boys. Boys evidenced significantly greater preference for the masculine role than girls did for the feminine role.

Honzik (1951) studied sex differences in the occurrence of materials in the play constructions of preadolescents. Marked individual differences and wide sex differences in the use of available play materials was suggested by the photographs of the children's play constructions. Play materials made available were blocks, toy furniture, dolls, toy cars, and toy animals. Girls generally used only the family figures, furniture and a few blocks to construct scenes closely related to the home. The boys' constructions were more varied and tended to depict more daring and imaginative scenes.

A rough masculinity-femininity score was suggested by the fact that boys had a greater tendency to use blocks, vehicles and persons-in-uniform and girls used house furniture and persons-in-ordinary dress. A masculinity-femininity score was therefore derived which equals the algebraic sum of the following:

- +1 for one or more blocks
- +1 for one or more vehicles
- +1 for one or more persons-in-uniform
- 1 for one or more persons-in-ordinary dress
- 1 for one or more pieces of furniture

The masculinity-femininity scores ranged from -2 (very feminine) to +3 (very masculine). The tendency for more of the boys to earn + or masculine

scores, and for more of the girls to earn - or feminine scores, was clear-cut at all age levels.

The Terman and Miles Attitude-Interest Blank, a masculinity-femininity test, is a questionnaire made entirely of items upon which the sexes differ significantly. The total score for an individual gives a masculinity or femininity rating which can be compared with norms for a wide variety of groups of men and women (Ford, Fenton and Tyler, 1952).

Franck and Rosen (1949) developed another way of measuring masculinity and femininity. They presented to their subjects (college students) incomplete drawings consisting of a few simple lines. The subjects were to complete the drawings in any way they liked. A number of differences were found in the manner men and women completed the drawings. Men tend to close off areas, enlarge and expand, emphasize sharp and angular lines, and prefer unity to separating parts. Women leave open areas and elaborate within these areas. They tend to blunt or enclose sharp lines or angles, and prefer pairs to unity.

Freedheim (1960) developed a method to measure sex-role adoption in young boys. Teachers of first to fifth graders selected the boys they perceived as most and least masculine in their classes. The teachers then filled out a rating scale for each member of their class. Certain items were found to consistently characterize masculinity as perceived by teachers. This technique was developed by comparing boys with boys and not with girls, so the assumption that masculinity and femininity are at opposite ends of the same continuum was not involved. Rather they were assumed to be two separate continuums.

Adult-Child Interaction

When adult-child interaction is studied in the nursery school situation, specific behaviors such as dependency, attention-seeking, and motivation are usually observed. Other researchers have been interested in developing methods for observing such interaction behavior.

Hartup (1958) conducted a study on preschool children based on the hypothesis that non-nurturance by an adult is more strongly associated with the occurrence of dependency behavior in young children than is nurturance alone. His study was designed to explore the relationship between the withdrawal of nurturance and young children's acquisition of responses which elicit adult approval.

The findings for girls uniformly supported the hypothesis that nurturance-withdrawal is associated with more efficient performance on the learning tasks than consistent nurturance. No difference was found between the nurturance-withdrawal and the consistent nurturance groups in the results for boys. However, when the boys' groups were divided according to the measures of dependence, highly dependent boys were found to respond much as the girls while low dependent boys responded in the reverse fashion (Hartup, 1958).

Horowitz (1940) found evidence in his study of adult-child interaction pointing to the generalizations (a) there is an increase in the children's independence of adults in relation to the overt activity involved in solving the problems of their day's activities, and (b) there is an increase in the children's dependence on the adults for attention and affectional support.

The parallel lines of development were noted by the author. On one side the child is developing a sphere of independence, he does things for himself; on the other, he is developing a sphere of dependence, he has increasing need for personal relationships with adults. The need for further study of this development was suggested by the author (Horowitz, 1940).

Stith and Connor (1965) used a time-sampling technique and pre-determined categories to determine the frequency and proportions of helpful and dependent behavior exhibited by preschool children. They found that as age increased among the subjects, dependent contacts with adults decreased in both frequency and proportion, and helpful contacts with both adults and children increased significantly.

The purpose of a study by Moustakas, Sigel and Schalock (1956) was to present a procedure for objective description and recording of adult-child interaction. The following criteria were used for selecting the categories in the schedule: comprehensiveness, relevance and meaningfulness, and ease of identification. "Attention," "Stimulus," "Orienting and Directing," "Criticism, Discipline, Rejection," "Approval or Reward," and "Cooperation, Compliance, Noncooperation," were the main categories used in the schedule. Observations were made of mother-child and therapist-child situations in a laboratory room set up for play therapy. The behavior of the child and adult was recorded individually for each five-second period. A prepared coding sheet was used for recording the behaviors observed. Observations were also made of the mother-child interaction in the home. The behavior of adult and child tended to vary from one situation to another; however, there was greater similarity in the behavior of mother and child in the playroom and in the home

than there was between therapist and child and either of the mother-child situations.

In summary, masculinity appears to be an encompassing, multi-dimensional concept. It has been measured in a number of different ways and related to various behaviors. The major hypotheses pertaining to masculine development have been derived from theories of identification.

The process of sex-role development in children begins very early. Lynn (1959) considers three phases of the process: sex-role preference (desire to adopt behavior associated with one sex or the other), sex role adoption (adoption of behavior characteristic of one sex or the other), and sex-role identification (incorporation of the role of a given sex and unconscious reactions characteristic of that role). Many studies have been conducted concerning all three phases of the process. A common method of measuring the different aspects of sex-role development has been to use play materials.

Adult-child interaction is usually studied by observing specific behaviors such as dependency or motivation. Researchers have devised instruments for recording interaction behavior in various situations.

CHAPTER III

PROCEDURES

Statement of the Problem

The purpose of this research was to study the masculinity, as perceived by teachers, of males three to five years of age and the relationship between masculinity and contacts with play materials, and masculinity and teacher-child interaction.

Hypotheses

1. There is no significant relationship between masculinity and
 - a. number of contacts with masculine play materials.
 - b. number of contacts with feminine play materials.
 - c. number of contacts with neutral play materials.
 - d. number of total contacts with play materials.
2. There is no significant relationship between masculinity and frequency of
 - a. seeking physical and eye contact
 - b. seeking reassurance
 - c. seeking protection
 - d. seeking comfort
 - e. seeking permission
 - f. seeking affection
 - g. seeking attention
 - h. seeking praise and approval
 - i. seeking help
 - j. seeking instruction
 - k. seeking reward
 - l. seeking information
 - m. giving information
 - n. giving directions to teacher

- o. explaining own behavior to teacher
- p. showing object to teacher
- q. statement of fact
- r. uncooperative behavior
- s. ignoring teacher's comment
- t. complying with teacher's request
- u. contacts with adults

Subjects

The subjects of the study were fourteen preschool males enrolled in the Kansas State University Child Development Laboratory. They ranged in age from thirty-eight months to sixty months at the beginning of the observation period.

The subjects were among thirty-two children enrolled in the nursery school program. All the males in the nursery school were used as subjects in this study. Seven of the subjects attended the morning session and seven the afternoon session. The laboratory was conducted four days a week, Monday through Thursday, for two hours and fifteen minutes each day. The children participated in a variety of indoor and outdoor play activities, mid-morning or mid-afternoon snack, rest period on rugs, and a story and song period.

Adults involved in each session of the laboratory included the head teacher, graduate assistant teacher, two student teachers, three advanced undergraduate students, and other student observers.

Observer Reliability

Observer reliability was established before collection of data began. After preliminary practice with the recording procedure, reliability was established by observation of the males enrolled in the Kansas State University Child Development Laboratory. The investigator and an associate

reached a percentage agreement of at least 80 percent before the data were collected. In order to constitute an agreement the behavior had to be recorded in the same category by the two observers. All of the subjects used in this study were observed by the investigator.

Teacher Rating Scale

A teacher's rating scale (Appendix A), developed by Freedheim to measure a boy's adoption of masculinity, was adapted for use in this study. The rating scale was designed to differentiate high and low masculine boys in terms of general behavior.

The head teachers completed a rating scale for each male member of their class. They were asked to circle each item on a five-point scale of frequency of the behavior occurrence: always, usually, moderately, seldom, never. Scores of four to zero were assigned to the categories "always" to "never" in scoring the masculinity items, with the third, fifth and eighth items being scored in the reverse direction. The sum of the scores for the eight masculine items constituted the boys' masculine score, zero being least masculine and thirty-two being most masculine.

Teacher Ranking

The director of the nursery school, the only adult in contact with all the subjects, was asked to rank the boys from most masculine to least masculine. A list of the subjects in both groups was given to the director for the masculine rankings. Directions to rank the boys from one through fourteen, most masculine to least masculine, accompanied the list. The rankings of the males were used to divide the group into high and low masculinity groups. The high masculine group consisted of the males ranked

from one to seven in masculinity. The low masculine group was composed of those ranked from eight to fourteen in masculinity.

Play Materials Observations

A list of play materials at the nursery school was compiled by the investigator. Six Department of Family and Child Development personnel were asked to rate whether they felt the items on the list were traditionally masculine, feminine or neutral play materials. Two-thirds criteria or four of the six personnel had to agree on the rating for it to be considered in one of the three categories. For example, four of the six personnel rated "wooden animals" as masculine and two of the six rated the item as neutral, therefore, "wooden animals" was considered a masculine play material. All six personnel rated "doll buggy" as feminine and "telephone" as neutral, therefore, they were considered feminine and neutral play materials respectively.

During the observation period, teachers introduced new play materials not included on the original list. Another list containing these new items was given to the six personnel for rating. A final list of play materials at the nursery school was then compiled (Appendix B).

On the final list of 137 play materials, 31 or 22.63 percent of the play materials were scored as masculine, 30 or 21.90 percent was feminine and 68 or 49.64 percent as neutral. Only eight items (5.83 percent) did not meet the two-thirds criteria.

Each subject was observed for three ten-minute periods to determine the number of contacts made with masculine, feminine and neutral play materials. The observations were conducted during play periods when the child was free to choose the play materials he wanted to use. When all of the observations were concluded they were compiled to determine the number of contacts each subject made with masculine, feminine and neutral play materials.

Teacher-Child Interaction Observations

A teacher-child interaction scale was adapted from the one used by Reeh (1969) in her observations of mother-child interaction. Twenty behavior categories were selected for observation of interaction of teacher and child in the nursery school situation. It was necessary to select categories that "were clearly definable, easily recognized in the rapid flux of social interaction, and comprehensive enough to permit the categorization of all possible behavior incidents that appeared during the observation period" (Reeh, 1969, p. 26).

The following categories were believed to fulfill the above conditions:

(1) seeking physical contact, including eye contact, (2) seeking reassurance, (3) seeking protection, (4) seeking comfort, (5) seeking permission, (6) seeking affection, (7) seeking attention, (8) seeking praise and approval, (9) seeking help, (10) seeking instruction, (11) seeking reward, (12) seeking information, (13) giving information, (14) giving directions to teacher, (15) explaining own behavior to teacher, (16) showing object to teacher, (17) statement of fact, (18) uncooperative behavior, (19) ignoring teacher's comment, (20) complying with teacher's request.

Observations of teacher-child interaction were made during play periods when the child was free to choose his own activity. All of the subjects were observed for three fifteen-minute periods, according to an established order. Each time a contact was made between a teacher and the subject the appropriate behavior category was checked on a recording sheet. The total number of behaviors made in each category by each subject was compiled.

CHAPTER IV

RESULTS

Description of Subjects

The sample consisted of 14 preschool male children who attended the Kansas State University Child Development Laboratory in 1969-70. The children ranged in age from 38 months to 60 months. All of the children were of the Caucasian race.

Ordinal position and the number of siblings were recorded. Six of the children were first-born in the family. Five of the children were the youngest in the family. Two children were the second child of three children. There was one "only" child. Eight of the children had only one sibling, three had two siblings, one had three siblings, and one had four siblings. The mean number of siblings was 1.5.

Thirteen of the 14 mothers were not employed outside the home. One of the thirteen was attending the University. The only employed mother worked in a government clerical position. The mother's educational level ranged from two with a high school education to one with a Master's degree. Five mothers had either a Bachelor of Science or Bachelor of Arts degree.

Nine of the 14 fathers were connected with the University through teaching, research, or coaching. Two fathers were working toward graduate degrees. Of the three remaining fathers, one was an attorney, one a construction foreman and one an assistant bank vice-president. The educational level of the fathers was as follows: one had a high school education, two

had a Bachelor's degree, two had a Master's degree, eight had a Ph.D. degree, and one had a Juris Doctor.

Twelve of the families lived in houses with six or more rooms. The two student families lived in four-room apartments. The religious background of the families were: 12 Protestants, one Catholic, and one with no religious affiliation. (See Table 1).

Teacher Ratings on Masculinity

Table 2 indicates the ratings given to the high and low masculine groups on the teacher rating scale.

The items found to consistently characterize masculinity as perceived by teachers in Freedheim's study were "is active and energetic," "likes sports and active games," "leads other children," "makes own decisions," and "stands up for his own rights." "Prefers table games," "is timid around others," and "prefers to stay by himself" were associated with low masculinity (Freedheim, 1960).

The high masculine group scored more often (23) in the "always" and "usually" categories than the low masculine group (16) on items one, two, four, six and seven. The low masculine group scored more often (25) in the "moderately" category as compared to the high masculine group (17) on all eight items. The high masculine group scored twelve times in the "seldom" and "never" categories on the third, fifth and eighth items, whereas the low masculine group scored six times. The high masculine group scored more in the masculine direction on all items of the teacher rating scale than did the low masculine group.

TABLE 1
DESCRIPTION OF SUBJECTS

Characteristic	Number of subjects	Percentage of total number of subjects
Age of Child		
60 months	1	7
59 months	1	7
58 months	2	14
57 months	1	7
56 months	1	7
55 months	1	7
51 months	1	7
48 months	1	7
47 months	1	7
46 months	2	14
43 months	1	7
38 months	1	7
Number of Siblings		
0	1	7
1	8	57
2	3	21
3	1	7
4	1	7
Ordinal Position		
Only child	1	7
1st child	6	43
2nd child	4	29
3rd child	1	7
4th child	1	7
5th child	1	7
Occupation of Father		
University faculty	9	64
Graduate student	2	14
Business	2	14
Professional	1	7
Educational Level of Father		
High School	1	7
Bachelor's degree	2	14
Master's degree	2	14
Ph.D. degree	8	57
Juris Doctor	1	7

TABLE 1 (continued)

Characteristics	Number of subjects	Percentage of total number of subjects
Occupation of Mother		
Homemaker	13	93
Clerical	1	7
Educational Level of Mother		
High School	2	14
One year college	1	7
Two years college	2	14
Three years college	2	14
Bachelor's degree	6	43
Master's degree	1	7
Religion		
Protestant	12	86
Catholic	1	7
Non-affiliated	1	7

TABLE 2
RATINGS GIVEN TO HIGH AND LOW MASCULINE GROUPS
ON THE TEACHER'S RATING SCALE

	Always	Usually	Moder- ately	Seldom	Never
<u>High Masculine Group</u>					
Stands up for his own rights	1	5	1	0	0
Is active and energetic	3	2	2	0	0
Is timid around others	0	1	2	3	1
Makes own decisions	1	4	2	0	0
Prefers to stay by himself	0	1	2	4	0
Likes active games	1	4	2	0	0
Leads other children	1	1	3	2	0
Prefers quiet games	0	0	3	4	0
<u>Low Masculine Group</u>					
Stands up for his own rights	0	4	1	2	0
Is active and energetic	0	4	3	0	0
Is timid around others	0	1	5	1	0
Makes own decisions	0	5	1	1	0
Prefers to stay by himself	0	0	4	3	0
Likes active games	0	3	4	0	0
Leads other children	0	0	2	5	0
Prefers quiet games	0	0	5	2	0

The masculine rank and masculine score for each subject appears in Table 3. The Mann-Whitney U test was used to compare the masculine scores of the high and low masculine groups. A difference was attained at the .10 level indicating a trend for the high masculine group to have higher masculine scores than the low masculine group on the teacher rating scale.

Figure 1 compares the masculine ranks and masculine scores of the subjects. The five highest ranked subjects also have the five highest masculine scores. Five of the seven subjects in the low masculine group also have scores in the lowest seven scores.

<u>Masculine Rank</u>		<u>Masculine Score</u>
High Masculine	1	29 (High Masculine 1)
High Masculine	2	25 (High Masculine 3)
High Masculine	3	24 (High Masculine 4)
High Masculine	4	21 (High Masculine 2)
High Masculine	5	21 (High Masculine 5)
High Masculine	6	20 (Low Masculine 8)
High Masculine	7	20 (Low Masculine 11)
Low Masculine	8	19 (Low Masculine 9)
Low Masculine	9	18 (High Masculine 7)
Low Masculine	10	18 (Low Masculine 10)
Low Masculine	11	18 (Low Masculine 12)
Low Masculine	12	18 (Low Masculine 14)
Low Masculine	13	14 (Low Masculine 13)
Low Masculine	14	13 (High Masculine 6)

Figure 1. Comparison of Masculine Rank and Masculine Score

TABLE 3
MASCULINE RANK AND MASCULINE SCORE

Masculine rank		Masculine score
High Masculine	1	29
High Masculine	2	21
High Masculine	3	25
High Masculine	4	24
High Masculine	5	21
High Masculine	6	13
High Masculine	7	18
Low Masculine	8	20
Low Masculine	9	19
Low Masculine	10	18
Low Masculine	11	20
Low Masculine	12	18
Low Masculine	13	14
Low Masculine	14	18

Type of Behavior Exhibited

Teacher-child interaction was observed using twenty behavioral categories. Each child was observed for three ten-minute periods. Most of the behavior observed occurred in the following eight categories: seeks physical (and eye) contact, seeks attention, seeks information, gives information, explains own behavior, statement of fact, ignores teacher's comment, and complies with teacher's request. A total of 891 behavioral responses was recorded in all the categories for the fourteen subjects. Seven-hundred and ninety or 88.66 percent of the total responses were recorded in the eight above mentioned categories. The number of responses and percentage of total responses for each behavior category appear in Table 4.

TABLE 4
TOTAL NUMBER AND PERCENTAGE OF RESPONSES OCCURRING
IN EACH BEHAVIOR CATEGORY

Behavior Category	Total number of responses	Percentage of total responses
Seeks physical and eye contact	130	14.59
Seeks reassurance	0	0.00
Seeks protection	0	0.00
Seeks comfort	0	0.00
Seeks permission	10	1.12
Seeks affection	0	0.00
Seeks attention	72	8.08
Seeks praise and approval	22	2.47
Seeks help	23	2.58
Seeks instruction	1	.11
Seeks reward	0	0.00
Seeks information	57	6.40
Gives information	61	6.85
Gives directions to teacher	21	2.36
Explains own behavior	107	12.01
Shows object to teacher	20	2.24
Statement of fact	216	24.24
Uncooperative behavior	4	.45
Ignores teacher's comment	39	4.38
Complies with teacher's request	108	12.12
Total	891	100.00

Those categories in which no response was recorded were seeks reassurance, seeks protection, seeks comfort, seeks affection, seeks reward. One response was recorded under seeks instruction. Four responses were recorded under uncooperative behavior.

The mean number of responses of the high and low masculine groups in each category of behavior appears in Table 5. The high masculine group had a higher mean than the low masculine group in ten of the behavior categories. The reverse of this was true in five of the categories. No response was recorded for either group in five of the behavior categories. The highest

mean (14.00 for the high masculine group, 12.00 for the low masculine group) for each group appeared in the category, statement of fact. The next highest mean appeared in the category, seeks physical (and eye) contact.

TABLE 5

MEAN NUMBER OF RESPONSES FOR BEHAVIOR EXHIBITED
BY HIGH AND LOW MASCULINE GROUPS

Behavior Category	High masculine group mean	Low masculine group mean
Statement of fact	14.00	12.00
Seeks physical and eye contact	10.14	8.43
Explains own behavior	9.00	6.29
Complies with teacher's request	7.86	7.57
Seeks attention	4.71	5.57
Gives information	4.71	4.00
Seeks information	3.86	4.29
Ignores teacher's comment	3.29	2.29
Seeks praise and approval	2.29	.86
Gives directions to teachers	2.14	.86
Shows object to teacher	1.14	1.29
Seeks help	1.00	2.29
Seeks permission	.86	.57
Uncooperative behavior	.43	.14
Seeks instruction	0.00	.14
Seeks reassurance	0.00	0.00
Seeks protection	0.00	0.00
Seeks comfort	0.00	0.00
Seeks affection	0.00	0.00
Seeks reward	0.00	0.00

The Mann-Whitney U test was used to compare the number of responses of the least masculine group and most masculine group in the eight behavior categories in which responses were most frequently recorded.

A difference at the .10 level was attained in only one of the categories, statement of fact. The low masculine group exhibited more statements of fact than the high masculine group.

A difference between the low masculine group and high masculine group at the .10 level was not observed in the following categories of behavior: seeks physical (and eye) contact, seeks attention, seeks information, gives information, explains own behavior, ignores teacher's comment, and complies with teacher's request.

The Mann-Whitney U test was used to compare the total number of behavior responses exhibited by the high and low masculine groups (Table 6). There was not a significant difference in the total number of responses of the two groups. The mean number of responses exhibited by the high masculine group was 66.0 and the mean for the low masculine group was 61.3. The number of behaviors recorded for individual subjects during the thirty-minute observation period ranged from 30 to 91.

TABLE 6

TOTAL NUMBER OF BEHAVIOR RESPONSES EXHIBITED BY SUBJECTS
IN HIGH AND LOW MASCULINE GROUPS

Subject	Total number of responses
High Masculine Group	
HM 1	46
HM 2	62
HM 3	81
HM 4	80
HM 5	40
HM 6	75
HM 7	78
Total	462
Low Masculine Group	
LM 8	91
LM 9	30
LM 10	64
LM 11	35
LM 12	73
LM 13	70
LM 14	66
Total	429

Choice of Play Materials

Masculine, Feminine, Neutral Play Materials

A total of 137 play materials was provided for the children to choose from in their free play periods at the nursery school. Fifty percent were neutral play materials, 21 percent were feminine play materials, 23 percent were masculine play materials and 6 percent did not meet the two-thirds criteria for assignment to one of these three categories. During the timed observations, a total of 107 contacts were made with the play materials by the fourteen male subjects. Thirty-one or 28.97 percent of the contacts were made with masculine play materials, four or 3.74 percent with feminine play materials, and 72 or 67.29 percent with neutral play materials. Each subject's

number of contacts with masculine, feminine and neutral play materials appear in Table 7.

TABLE 7
NUMBER OF CONTACTS SUBJECTS MADE WITH MASCULINE,
FEMININE AND NEUTRAL PLAY MATERIALS

Subject		Masculine play materials	Feminine play materials	Neutral play materials	Total no. of contacts
High Masculine	1	1	1	7	9
High Masculine	2	3		5	8
High Masculine	3			8	8
High Masculine	4	6		8	14
High Masculine	5	2	2	4	8
High Masculine	6	3		3	6
High Masculine	7			5	5
Low Masculine	8		1	5	6
Low Masculine	9	4		2	6
Low Masculine	10	2		8	10
Low Masculine	11	3		3	6
Low Masculine	12	2		6	8
Low Masculine	13	5		2	7
Low Masculine	14			6	6
Total		31	4	72	107
Percentage of total		28.97	3.74	67.29	100.00

The total number of contacts with play materials ranged from five to fourteen. Contacts with masculine play materials ranged from zero to six, and contacts with neutral play materials ranged from two to eight.

Types of Play Materials

An analysis of the types of play materials the subjects chose to play with revealed that 121 contacts were made with 47 of the play materials in the nursery school. The high masculine group made 66 contacts with play materials while the low masculine group made 55 contacts. Table 8 indicates the number of contacts the high and low masculine groups made with the play materials and the total number of contacts made with the play materials by all subjects.

The following eight of the forty-seven play materials were used five or more times by the subjects: puppets, creative art, cardboard blocks, wooden blocks (all sizes), hollow wooden blocks, books, wooden truck, metal truck. The most contacts, fourteen, were made with the wooden blocks (all sizes), each group making seven contacts. The wooden blocks (all sizes) were not included in the masculine, feminine, neutral category listing of contacts made by the subjects because the item did not meet the two-thirds criteria required for assignment to one of the three categories. Of the remaining seven most frequently used play materials, four were designated as neutral and three as masculine.

TABLE 8
NUMBER OF CONTACTS MADE WITH PLAY MATERIALS
BY HIGH AND LOW MASCULINE GROUPS

Play material	High masculine group	Low masculine group	Total No. of contacts
Scissors		1	1
Easel paint		1	1
Puppets	4	1	5
Creative art	2	5	7
Lok-a-block		1	1
Wooden house blocks	1	1	2
Puzzles	3	1	4
Button on junior		1	1
Wooden train track with cars	1	1	2
String spools		1	1
Carpet sweeper	1		1
Telephone	1		1
Toy furniture	1		1
Milk dairy wagon	1		1
Construction crane	1	1	2
Cardboard blocks	4	4	8
Wooden blocks (all sizes)	7	7	14
Hollow wooden blocks	3	4	7
Water play		2	2
Books	7	2	9
Wooden airplane	1		1
Wooden truck	4	2	6
Wooden car		3	3
Wooden gas pump	1		1
Magnifying stool	2		2
Hourglass	1		1
Musical chimes		1	1
Flannel board		1	1
Tape recorder	2		2
Hairspray can	1		1
Toy figures	2		2
Live animals	2		2
Making food	1		1
Top		1	1
Water play in bath tub	2	1	3
Potato face	1	1	2
Wooden playskool building	1		1
Balance board	2		2
Wooden boats	1		1
Metal truck	1	4	5
Watering plants	1		1

TABLE 8 (continued)

Play material	High masculine group	Low masculine group	Total No. of contacts
Flashlight	1	1	2
Number counter		1	1
Lotto game		2	2
Large wooden train	1	1	2
Construct-o-straws		1	1
Small colored square blocks	1	1	2
Total	66	55	121

Comparison of High and Low Masculine Groups on Play Materials

The Mann-Whitney U test was used to compare the number of contacts made with masculine and neutral play materials by the two groups. The feminine play materials were not statistically analyzed because too few responses were made in this category. The subjects were divided into high and low masculine groups as described in the procedures.

There was not a significant difference in the number of contacts made with masculine play materials and neutral play materials by the high masculine and low masculine groups.

The Mann-Whitney U test was used to compare the total number of contacts the high and low masculine subjects made with the play materials (Table 9). No significant difference was found in the total number of contacts made by the low masculine and high masculine groups.

TABLE 9
TOTAL NUMBER OF CONTACTS WITH PLAY MATERIALS
MADE BY HIGH AND LOW MASCULINE SUBJECTS

Subjects		Number of contacts
High Masculine	1	9
High Masculine	2	8
High Masculine	3	8
High Masculine	4	14
High Masculine	5	8
High Masculine	6	6
High Masculine	7	5
High Masculine Total		58
Low Masculine	8	6
Low Masculine	9	6
Low Masculine	10	10
Low Masculine	11	6
Low Masculine	12	8
Low Masculine	13	7
Low Masculine	14	6
Low Masculine Total		49

Masculine Rank and Score Related to Age of Subjects

Although at the beginning of this study it was not planned to relate masculinity of the subjects to their age, the relationship between these two variables was significant at the .05 level.

The Mann-Whitney U test was used to compare the masculine rank and masculine score to the age of the subjects. There was a significant difference between masculine rank and age of the subject. The subjects in the high masculine group were significantly older than the subjects in the low masculine group.

There was a significant difference between age of subject and masculine score. The older subjects had significantly higher masculine scores than the younger subjects.

Testing of Hypotheses

The following null hypotheses were not rejected:

1. There was no significant relationship between masculinity and
 - a. number of contacts with masculine play materials
 - b. number of contacts with feminine play materials
 - c. number of contacts with neutral play materials
 - d. number of total contacts with play materials
2. There was no significant relationship between masculinity and frequency of
 - a. seeking physical contact
 - b. seeking reassurance
 - c. seeking protection
 - d. seeking comfort
 - e. seeking permission
 - f. seeking affection
 - g. seeking attention
 - h. seeking praise and approval
 - i. seeking help
 - j. seeking instruction
 - k. seeking reward
 - l. seeking information
 - m. giving information
 - n. giving directions to teacher
 - o. explaining own behavior to teacher
 - p. showing object to teacher
 - q. statement of fact
 - r. uncooperative behavior
 - s. ignoring teacher's comment
 - t. complying with teacher's request
 - u. contacts with adults

In summary, the results reveal that 88.66 percent of the behavior observed between teacher and child occurred in eight of the twenty categories of behavior responses. Statement of fact was the only category in which a difference at the .10 level was attained. The low masculine group

of males exhibited more statements of fact than the high masculine group of males. There was not a significant difference in the total number of responses of the two groups.

The observation of play material contacts revealed that a total of 107 contacts were made with the masculine, feminine and neutral play materials by the fourteen subjects. No significant difference was found in the number of contacts made with masculine play materials and neutral play materials by the high and low masculine groups. Too few contacts were made with feminine play materials to make a statistical analysis. No significant difference was found in the total number of contacts made by the high and low masculine groups.

The masculine ranks and masculine scores of the high and low masculine groups were compared. A difference at the .10 level was attained indicating a trend for the high masculine group to have higher masculine scores than the low masculine group on the teacher rating scale.

Although age as related to masculinity was not a part of the original plan of this study the following additional hypotheses were tested.

1. There is no significant relationship between masculine score and age of the subject.
2. There is no significant relationship between high and low masculine group rankings and age of the subjects.

These hypotheses were rejected. The seven older subjects had significantly higher masculine scores than the seven younger subjects. The subjects in the high masculine group were significantly older than the subjects in the low masculine group.

CHAPTER V

DISCUSSION

The purpose of this investigation was to study masculinity in four and five year old males and the relationship between masculinity and interaction with teachers and play materials. The relationships were set forth in hypotheses and the results were presented in the previous chapter.

The subjects in this study were in the middle and upper-middle social class. Different findings might have been obtained if the subjects had been in the lower-class supporting the findings of Hall and Keith (1964). The specific traditions, attitudes and values of social class seem to be important in the area of sex-role preference.

Perceptions of masculine behavior probably differ according to social class. It seems likely that the masculine role is more clear-cut among the lower or working-class population than it is in the middle-class and that the masculine role is more attractive than the feminine role (McCandless, 1967). Working-class men do heavy work on their jobs and assume little care for their children or the house. Working-class women, when employed, often take such traditionally feminine roles as housekeeping, cooking or laundering. Among the middle-class group both father and mother have higher levels of education and may have been employed in the same type of job such as teaching. Wives may handle family finances and drive the car with greater frequency than the husband. The father may help with some of the housework and stop by the grocery store on his way home from work.

Models for the child's behavior are less distinctive in the middle-class than in the lower-class (McCandless, 1967).

In this study only two fathers were in jobs requiring physical activity, but their jobs also carried considerable responsibility. The other twelve fathers held white collar positions that did not involve manual labor or physical risk. The males in this study were not subjected to clear-cut masculine and feminine occupational roles. This may be one of the reasons for the *small* range of masculine scores. If children of differing social classes had been included in the study perhaps greater variation in masculinity would have been observed.

Behaviors Exhibited

In general, the behavior exhibited by the subjects in interaction with their teachers appeared to be more independent than dependent. Many of the behaviors were in the statement of fact, explains own behavior, or gives information categories, behaviors which could be considered as signs of independence. No behavior was exhibited in the seeks reassurance, seeks protection, seeks comfort, or seeks affection categories, examples of dependent behavior.

Horowitz (1940) found that there is an increase in children's independence of adults in relation to the overt activity involved in solving the problems of their day's activities. The subjects in this study exhibited independent behavior during their nursery school free play experience. Horowitz also found an increase in children's dependence on adults for attention and affectional support. Although attention was sought by some of the subjects in this study, no affectional support was requested during the observation period. Perhaps the subjects in this

study, because of their family backgrounds, do not demand the amount of attention other children might. Child-rearing changes over the years might also account for more independence and lack of seeking attention in young children.

Aggressive and independent behavior is often associated with high masculinity and withdrawn and dependent behavior with low masculinity. Freedheim (1960) found this association to be true in developing his teacher-rating scale of masculinity. In this study also, males who ranked high in masculinity were rated high on the more active, independent items on the scale while the lower masculine ranked males were rated higher on the more withdrawn, dependent items of the scale.

Statements of Fact by High and Low Masculine Groups

The results indicated that the low masculine group made more statements of fact than the high masculine group. This is the opposite of what the investigator anticipated. An explanation for this finding could be that the more masculine subjects are perceived as more verbal because they are more action-oriented or aggressive in their verbalizations making it seem as though they verbalize more than they do. The low masculine subjects may not seem to be verbalizing as much because they are not as forceful as the high masculine subjects when actually they are verbalizing more than the high masculine subjects. If this explanation is valid, teachers should use caution in describing a child as less verbal and systematic record-keeping should be employed in describing child behavior.

Another explanation might be that frequent verbalization is perceived as a feminine trait, therefore, the boys who verbalized more might be perceived as more feminine.

Number of Behavior Responses

The mean number of behavior responses for the high and low masculine groups was 66 and 61 respectively. The small difference between these means suggests that the quality and intensity of the behavior is more important than the quantity. What a child does and how he does it may be the important factors to consider rather than how often he does it. In further interactional studies all aspects of the interaction should be considered.

The number of total responses for each subject ranged from 30 to 91 responses. For a forty-five minute observation period this appears to be a large number of teacher-child interactions; as many as one or two responses per minute were made by the subjects. The interaction in this study was between a female teacher and a male child with the peer group present. The high ratio of teachers to children might account somewhat for the large amount of teacher-child interaction. This high ratio might also be the reasons for the apparent lack of need for affectional and dependent support by the subjects. A teacher is nearly always present to see that the child's experiences are successful, therefore he usually encounters little frustration which in turn might lead to little or no need for affectional support. The importance of adult presence in shaping child behavior should be explored further.

Choice of Play Materials

The subjects' choice of play materials was in direct proportion to the availability of the masculine and neutral play materials in the laboratory setting. Sixty-seven percent of the contacts were made with neutral play materials (50% of the total play materials available) and 29 percent

of the contacts were made with masculine play materials (23% of the total play materials available). Twenty-one percent of the available play materials were feminine and six percent were not assigned to one of these three categories. The subjects rejected feminine play materials (four percent of the total contacts) but they did not excessively choose masculine play materials. Most contacts were made with neutral materials.

One explanation for the great use of neutral play materials could be the fact that more neutral materials were available from which to choose. Another explanation could be that the home experiences of the subjects are with more masculine play materials because of parents' awareness of sex-appropriate toys, therefore males explore the neutral and even feminine play materials at the nursery school. Perhaps they feel freer to use such materials in a setting in which their use is encouraged and allowed and they are surrounded by female adults.

Blocks appeared to be a popular play material choice among the subjects of this study. Twenty-nine total contacts were made with the hollow blocks, cardboard blocks and wooden blocks (all sizes). The most contacts, fourteen, were made with the wooden blocks (all sizes). The next highest number of contacts, nine, was made with books. In an observational study of the free play of ten four-year-olds in a nursery school, Hulson (1930) found that blocks rated highest among all available play materials on number of times used. Van Alstyne (1932) also found that blocks were one of three most popular of twenty-five play materials provided in three nursery schools and four kindergartens.

Nursery School Experience

The effect of nursery school experience on male children should be considered. The nursery school provides more freedom to explore neutral and feminine play materials as well as masculine materials. Teachers might not reinforce the sex-appropriate play choices as much as the parents of the children might, so a more neutral situation could be experienced by the children. One purpose of a nursery school might be to channel aggressive behavior (behavior which is associated with high masculinity) and encourage socialization rather than withdrawal (behavior associated with low masculinity). In these ways the nursery school encourages behavior which could be considered as neutral rather than masculine or feminine.

Age

Age appears to be a factor in the teacher's perception of the masculinity of the subjects. The subjects in the high masculine group were significantly older than those in the low masculine group and the older group of subjects had significantly higher masculinity ratings than the younger group of subjects. Also, Lynn (1959) found that boys at four scored more masculine than boys at three. These findings support the importance of the child's relative age as a factor in the way in which he is perceived by others.

DeLucia (1963), in his Toy Preference Test, found an orderly increase in the number of sex appropriate choices for both boys and girls from kindergarten through the third grade. Perhaps the subjects in this study have only begun to make masculine toy preferences and no sharp individual differences have developed.

Limitations

The following limitations were present in the study:

1. All of the subjects used in the study had participated in a nursery school experience from several months to a year and a half. The possible effects of the nursery school in shaping behavior have been indicated. Different results might have been observed in children with no nursery school experience.
2. Observation of the children in the nursery school setting, while making it possible to control certain variables, such as materials available and adults present, also may have resulted in findings different than those which would have been obtained if the children had been observed in their homes or in another setting.
3. Only one social class or segment of the population was observed indicating that generalizations should not be made from this study to children of other social classes. Masculine behavior of children from the lower social class should also be studied.
4. Only fourteen children were observed for this study. In order to make a statistical comparison all of the subjects on the masculine continuum were included. If the top fourth and bottom fourth of a larger sample had been employed, more significant differences may have been observed.
5. Only the number of behavior responses and number of contacts with play materials were recorded. The amount of time spent in each behavior response or in contact with a play material was not recorded. In addition, the importance of the study of the intensity and quality of the interaction has been suggested in the discussion.

6. Only one person ranked the children and only two people rated the children on masculinity so the results were only in terms of masculinity as perceived by three persons.

CHAPTER VI

SUMMARY

The most basic category into which human beings, regardless of race, creed or culture, are placed is the category of sex: male or female. Associated with the obvious biological differences between boys and girls and men and women, are psychological and behavioral differences that are perhaps even more important for individual adjustment than the biological differences.

The objective of this study was to gain information to further understanding of masculinity in preschool males. This was attempted by studying the interactional behavior of preschool males and their teachers and play material choices of preschool males.

Fourteen preschool males who were attending the Kansas State University Child Development Laboratory, were observed in six periods for a total of one hour and fifteen minutes to record play material choices and teacher-child interaction. All observations were done during free play periods in which the child was free to choose the play materials he preferred. The interactional behavior of each child was recorded in twenty behavioral categories.

Two methods were used to assess masculinity of the preschool males. A teacher's rating scale was adapted for use in this study to obtain a masculine score for each subject. The subjects were also given a ranked number from most masculine to least masculine. Using the masculine ranks,

the fourteen males were divided into high (upper seven) and low (lower seven) masculine groups. Utilizing the Mann-Whitney U test it was found that the high masculine group had higher masculine scores than the low masculine group on the teacher rating scale.

Comparisons were made between the high and low masculine groups on interactional behavior with teachers and choice of play materials. Eighty-eight percent of the behavior responses were recorded in eight of the twenty behavior categories. A difference between high and low masculine groups at the .10 level was found in only one of the twenty categories, statement of fact. The low masculine group made more statements of fact than the high masculine group. There was not a significant difference in the total number of behavior responses of the two groups.

The observation of play material contacts revealed that a total of 107 contacts were made with the masculine, feminine and neutral play materials by the fourteen subjects. No significant difference was found in the number of contacts made with the masculine play materials and neutral play materials by the high and low masculine groups. Too few contacts were made with feminine play materials to make a statistical analysis. No significant difference was found in the total number of contacts made by the high and low masculine groups.

Although age as related to masculinity was not a part of the original plan of study, the following significant differences were found: The seven older subjects had significantly higher masculine scores than the seven younger subjects. The subjects in the high masculine group were significantly older than the subjects in the low masculine group.

The findings of this investigation suggest factors to consider in understanding masculinity in preschool males. These factors include amount and quality of teacher-child interaction, choice of play materials, nursery school experience, social class and age.

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APPENDIX A

Teacher Rating

Name of Child _____ Rater _____

Circle each item on frequency of behavior occurrence.

Stands up for his own rights	Always	Usually	Moderately	Seldom	Never
Is active and energetic	Always	Usually	Moderately	Seldom	Never
Is timid around others	Always	Usually	Moderately	Seldom	Never
Makes own decisions	Always	Usually	Moderately	Seldom	Never
Prefers to stay by himself	Always	Usually	Moderately	Seldom	Never
Likes active games	Always	Usually	Moderately	Seldom	Never
Leads other children	Always	Usually	Moderately	Seldom	Never
Prefers quiet games	Always	Usually	Moderately	Seldom	Never

APPENDIX B

PLAY MATERIALS

Play dough	Neutral
Rolling pin	Feminine
Cookie cutter	Feminine
Play dough dishes	Feminine
Crayons	Neutral
Scissors	Neutral
Paste	Neutral
Construction paper	Neutral
Collage materials	Neutral
Easel painting	Neutral
Finger painting	Neutral
Creative painting	Neutral
Puppets	Neutral
Variety of seeds in a pan	Neutral
Creative art activity	Neutral
Peg village	Neutral
Box with holes for 5 shapes	Neutral
Lok-a-block (plastic blocks)	Neutral
Wooden house blocks for building	
a city on canvas cloth	Neutral
Puzzles	Neutral
Button on junior	Neutral
Lace up junior	Neutral
Kittie in the keg	Neutral
Shape puzzles	Neutral
Stack shapes on pegs	Neutral
Small wood construction blocks	None*
Snap together blocks	Neutral
Wooden track with cars	Masculine
Colored peg board	Neutral
Postal station box	Neutral
Plastic ball with shapes for inserting	
in holes	Neutral
Plastic construction shapes	Neutral
Peg board with hammer	Masculine
Screws with board	Masculine
String spools	Neutral
Hats, men	Masculine
Hats, ladies	Feminine
Jewelry	Feminine
Dress-up clothes, men	Masculine
Dress-up clothes, ladies	Feminine
Iron	Feminine
Ironing board	Feminine
Dolls	Feminine
Doll bed	Feminine
Doll blankets	Feminine
Doll buggy	Feminine

Carpet sweeper	Feminine
Broom	Feminine
Dust pan	Feminine
Telephone	Neutral
Rag doll	Feminine
Rocking chair	Feminine
Weight scales	Neutral
Bowl of Fruit	Feminine
Vase of flowers	Feminine
Camera	Neutral
Stove	Feminine
Sink	Feminine
Dishes	Feminine
Toy furniture	Feminine
Wooden animals	Masculine
Milk delivery case with bottles	Masculine
Crate Box train	Masculine
Fire chief hats	Masculine
Cowboy hats	Masculine
Indian head-dress	Masculine
Necktie	Masculine
Belt, men	Masculine
Belt, ladies	Feminine
Construction crane	Masculine
Hitch together blocks	Neutral
Cardboard blocks	Neutral
Wooden blocks all sizes	None
Hollow wooden blocks	Masculine
Wood-working table	Masculine
Hammer	Masculine
Saw	Masculine
Nails	Masculine
Screw driver	Masculine
Miscellaneous woodworking tools	Masculine
Balls	None
Tunnel of fun	Neutral
Metal jungle gym	Neutral
Ladder box	Neutral
Horizontal ladder	Neutral
Ladders	None
Planks	Neutral
Saw horses	None
Large hollow wooden blocks	None
Punching bag	Masculine
Sand pile	Neutral
Dishes in sand pile	Feminine
Sand toys (buckets, shovels)	Neutral
Tricycles	Neutral
Steering wheel	Masculine
Water play	Neutral
Soap bubbles	Neutral

Outdoor sink	Feminine
Wooden Wagon	Neutral
Egg beaters for water play	Feminine
Books	Neutral
Records	Neutral
Scarves for dancing	Feminine
Wooden Airplane	Masculine
Wooden truck	Masculine
Wooden car	Masculine
Wooden gas pump	Masculine
Aquarium	Neutral
Magnifying glass	Neutral
Hour glass	Neutral
Kaleidoscope	Neutral
Musical instruments	Neutral
Hand bells	Neutral
Bells on sticks	Neutral
Flannel boards	Neutral
Bug container	None
Climbing a tree	Masculine
Tape recorder	Neutral
Hairspray can	Feminine
Plastic toy figures	Neutral
Live animals	Neutral
Making food	Feminine
Top	Neutral
Water play in bathtub	Neutral
Potato face	Neutral
Wooden playskool building	Neutral
Balance board	Neutral
Wooden boats	Masculine
Metal truck (large)	Masculine
Watering plants	Neutral
Flashlight	Neutral
Number counter	Neutral
Lotto game	Neutral
Large wooden train	Masculine
Construct-o-straws	Neutral
Small colored square blocks	Neutral
Spray bottle with sponge for cleaning	None

*These items did not meet the two-thirds criteria for assignment to one of the three categories, masculine, feminine or neutral.

MASCULINITY IN PRESCHOOL MALES AS RELATED TO TEACHER-CHILD
INTERACTION AND PLAY MATERIAL CHOICES

by

Marlene Kay Moyer

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Department of Family and Child Development

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The most basic category into which human beings, regardless of race, creed or culture, are placed is the category of sex: male or female. Associated with the obvious biological differences between boys and girls and men and women, are psychological and behavioral differences that are perhaps even more important for individual adjustment than the biological differences.

The purpose of this study was to gain information to further understanding of masculinity in preschool males. This was attempted by studying the interactional behavior of preschool males and their teachers and the play material choices of the preschool male subjects.

Fourteen preschool males attending the Kansas State University Child Development Laboratory, were observed for a total of one hour and fifteen minutes to record play material choices and teacher-child interaction. All observations were conducted during free play periods in which the child was free to choose the play materials he preferred. The interactional behavior of each child was recorded in twenty behavioral categories.

Two methods were used to assess the masculinity of the preschool males. A teacher's rating scale was adapted for use in this study to obtain a masculine score for each subject. The subjects were also ranked from most masculine to least masculine. Using the masculine ranks, the fourteen males were divided into high (upper seven) and low (lower seven) masculine groups. Utilizing the Mann-Whitney U test it was found that the high masculine group had higher masculine scores than the low masculine group on the teacher rating scale.

The results report the findings made from comparisons of the high and low masculine groups on interactional behavior with teachers and choice of play materials. Eighty-eight percent of the behavior responses were recorded in eight of the twenty behavior categories. A difference between high and low masculine groups was found in only one of the twenty categories, statement of fact. There was a trend indicating the low masculine group made more statements of fact than the high masculine group.

The subjects made a total of 107 contacts with the masculine, feminine and neutral play materials. No significant difference was found in the number of contacts made with the masculine play materials and neutral play materials by the high and low masculine groups. There were too few contacts with feminine play materials to make a statistical analysis. No significant difference was found in the total number of contacts made by the high and low masculine groups.

Although age as related to masculinity was not a part of the original plan of study, the following significant differences were found: The seven older subjects had significantly higher masculine scores than the seven younger subjects. The subjects in the high masculine group were significantly older than the subjects in the low masculine group.

The findings of this investigation suggest factors to consider in understanding masculinity in preschool males. These factors include amount and quality of teacher-child interaction, choice of play materials, nursery school experience, social class and age.