SEX-ROLE IDENTIFICATION IN PRESCHOOL CHILDREN: A STUDY OF THE RELATIONSHIP BETWEEN MASCULINITY-FEMININITY AND CONFORMITY TO PARENTS

By

ALLYS ELAINE GOLDSMITH

Bachelor of Science

Ohio University

Athens, Ohio

1957

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Thesis Adviser

Dean of the Graduate College

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CHAPTER I

INTRODUCTION

Purpose

The purpose of this study was to investigate the relationship between masculinity and femininity of preschool children and their conformity-nonconformity to their parents. Age differences in masculinity-femininity and conformity-nonconformity were examined, and the relationship between these two qualities was investigated in an attempt to gain an increased understanding of sex-role identification.

Problem

From the beginning of time, man has searched for answers to questions, such as the following: What is a man? What is a woman? Who am I? In recent generations the questions concerning masculinity and femininity have changed to ones, such as the following: As a man, what is my role? As a woman, what is my role? How did I, as an individual, acquire my sex role?

Sex-role identification is basic to the continuation of a society with differences in the roles of men and women. As the culture moves from stereotyped and simple roles to more overlapping and confusing roles, men and women face increasing problems in understanding themselves, their roles, and their interrelationships.

Boys and girls are born with basic physical differences, but the differences which are psychological seem to be learned. Research findings show very early differences in the adaptive responses of boys and girls; however, the reasons for the development of these differences, as well as those occurring later, are not clear. The way in which this sex-role identification is acquired is filled with confusion.

The current American culture is filled with confusion concerning personal identity, including sex-role identity. Perhaps, when the acquisition of identity is better understood, some of the identity problems can be overcome in the earliest formative stages. To the extent that this study contributes to an understanding of the acquisition of sex-role identity, it will help to solve the identity problem.

Identification

Identification refers to the assumption of values, feelings, and attributes of others. Bronfenbrenner (1960) in a scholarly, exhaustive review of Freudian theories found identification theories to be complex and confusing and in need of further study. Bronfenbrenner stated that there are three classes of phenomena commonly called identification. (1) Identification as behavior implies that a child behaves in the manner of a model. (2) Identification as motive refers to the disposition of a child to act like a model. (3) Identification as process refers to "the sequential interplay of forces internal and external which impel the child to take on the characteristics of the parent." (Bronfenbrenner, 1960, p. 22).

Freud most often treated identification as process, and he identified two possible alternative developmental mechanisms involved in this process. One is termed anaclitic identification and evolves from a dependency relationship with a loving person; this type is based on a fear of losing that love. The other type is termed aggressive identification and evolves from a dependency relationship with an aggressive person and is based on fear of the aggressor. Mowrer (1950) has discussed identification as process and has labeled these alternative mechanisms as developmental and defensive. He considers the developmental mechanism to be powered mainly by biological drives, similar to the Freudian theory of loss of love; and he considers the defensive mechanism to be powered by socially inflicted discomforts, or simply the fear of punishment. Regardless of the mechanism involved, whether developmental or defensive, the evidence of identification is found in the overt behavior of the child.

Identification as behavior, as motive, and as process, can only be separated in theory; and whatever the focus of the research or discussion, the only place that evidence of identification can be found is in the child's overt behavior, which is the product of his identification. This overt behavior may be the imitation of another, or it may reflect the dispositional traits or the values and feelings of another.

When the product of identification is the imitation of a model's behavior, the child behaves like the model. For example, a little girl may attentively rock her doll after observing a woman rock her baby or she may choose chocolate ice cream when her mother chooses

chocolate ice cream. In both cases she is showing identification. A little boy may imitate the behavior of a policeman in his play, or he may laugh when his father laughs even though he may not know what is funny. In both cases he is showing identification.

When the product of identification reflects the dispositional traits of a model, the child's behavior is not necessarily an imitation of the model's behavior, but it reflects the qualities or traits that are expressed in the model's behavior. The child may reflect the qualities as they actually are or as he distorts them in his perception. If a parent is kind and considerate in his relationships with elderly people, the child who identifies with him may behave in a way that reflects this same kindness and consideration. If a girl sees her mother as shy and quiet, and behaves in this way, she is showing identification. If a boy sees his father as strong and forceful and behaves in this way toward his peers, he is showing identification.

When the product of identification reflects the model's values, feelings, and aspirations, the child must first perceive these values and expectations and then attempt to model his behavior in that direction. A little boy may perceive that his father admires force and aggression, even though his father himself is not a forceful person. When the little boy then relates to others in a forceful and aggressive manner, he is showing identification. When a little girl perceives the expectation of good behavior and cleanliness and tries to pattern her life accordingly, she is showing identification.

In theory, the process and the product can be separated; however, in any study of sex-role identification, the product, i.e., the

child's overt behavior, must be considered. The term process refers to the mechanics involved in acquiring the behavior and motives of another, and to the interplay between external and internal forces which causes the child to imitate a model; while the term product refers to the observable similarities in the characteristics of the child and a model. Bronfenbrenner says that the process of sex-role identification is in need of greater clarification:

> Theories have grown all out of proportion to the facts. They offer elaborate and intricate explanations for phenomena presumed to be common if not universal; yet, the evidence for the prevalence or even the sheer existence of these phenomena is extremely sparse. Thus, to the writer's knowledge, there have as yet been no attempts to investigate empirically the presence of a generalized motive in the child to become like one or the other parent. (Bronfenbrenner, 1960, p. 39).

Several steps in the identification process have been observed in the behavior of children. The child may simply imitate behavior, usually the behavior of the like-sex parent, or he may behave in a way which reflects the dispositional traits of the model he has chosen. Ultimately he will change from copying behavior and reflecting dispositional traits to the complete internalization of the feelings and attitudes of his model. Sex-role identification refers to the internalization of the role of a given sex; the values, interests, and attributes become an actual part of the person so that his spontaneous behavior and automatic responses are influenced accordingly. Thus, in an attempt to find the real meaning of sex-role identification, it is necessary to look to the specific behavior of children.

CHAPTER II

REVIEW OF THE LITERATURE

In considering sex-role identification, authors have used a number of research methods and have reached varied findings. This chapter will include a discussion of the use of interviews, observations, and projective techniques in the measurement of masculinity-femininity. The chapter will also include relevant research findings pertaining to sex-role identification.

The Measurement of Masculinity-Femininity

Masculinity-femininity has been measured by three methods: interviews, observations, and projective techniques. Interview methods have usually been used with adults or older children who can readily understand and answer questions verbally; whereas, observations and projective techniques have been used more frequently with young children.

Interview Methods

In studies of masculinity-femininity, interviews have focused on socialization practices of parents, personality variables of children, and preferences of children for toys, clothing, and pictures.

Mussen and Rutherford (1963) used a parental interview to determine the parents' attitudes toward their children. Information

concerning attitudes of both the mothers and the fathers was secured by interviewing only the mothers. This parental interview was related to the children's sex-typing; the focus was on the relationship of the parents' socialization practices, including their encouragement of sex-appropriate games, to the children's perceptions of parental power. The parental interest and acceptance scales from the California Personality Inventory were used with the parental interview to discover actual parental attitudes.

Vroegh (1968) interviewed teachers of nursery school children, and from the data gathered in the interviews ranked the children on 60 personality variables, including masculinity-femininity. From this ranking, Vroegh isolated four factors: extroversion-introversion, social adjustment, competence, and an unnamed fourth personality variable. Vroegh found that masculinity and femininity were not opposites insofar as these four factors were concerned; for example, a boy who scored high in extroversion might score high or low in masculinity.

Sears, Rau, and Alpert (1965), in a large study of identification, used interviews with parents as one of many methods. In this segment of the study, parents were interviewed about their children's behavior at home, and about their own child-rearing practices. The researchers compared the data from these interviews with data concerning the children's behavior that had been obtained by other methods.

Interviews with children have been used in masculinity-femininity tests, but in these tests pictures and toys have been used to give the children opportunities to respond without talking. Delucia (1963)

developed a masculinity-femininity test based on toy preferences. The test consisted of pictures of paired toys; in each pair one toy was considered masculine and the other one feminine. This rating of the toys was done on the basis of adult judgments. Each child's masculinity-femininity rating was determined by his preference for masculine or feminine toys as he indicated his choice. Delucia found that the sex of the examiner affected the child's responses; that is, the child who showed highly masculine responses when the examiner was a man showed somewhat less masculine responses when the examiner was a woman. Prior to Delucia's work, several other researchers had measured the masculinity and femininity of young children by having the children indicate their preferences in terms of toys, clothing, and games. (Fauls and Smith, 1956; Rosenberg and Sutton-Smith, 1959).

Another preference test, the Starkweather M-F Test, was developed as a part of the creativity research at Oklahoma State University. White (1967) and McKinzie (1968) were among those who participated in the development of this test. In this test each child indicates his preferences as he is shown a series of pictures; the pictures are presented in sets of three. The pictures are actually gummed seals, and the child is given those that he chooses. The scoring of the test is based on the actual choices of the children themselves. Each picture is weighted in terms of masculinity or femininity according to the frequency with which it is chosen by boys and girls. The Starkweather M-F Test is unique in that the scoring is based on the choices of the children rather than on adult judgments.

Observation Methods

Observations in structured and unstructured situations have been used in the study of masculinity-femininity. When the situation is unstructured, as in the observation of free play at a nursery school, heavy reliance is placed on the skill of the observer to report what he actually sees rather than his subjective interpretation of the situation. On the other hand, when the situation is structured, as in an arranged situation unfamiliar to the child, a true response is highly dependent upon acclimatization of the child to his environment so that a fear or stress response is avoided.

Sears, Rau, and Alpert (1965) used unstructured observations of nursery school play in three ways. First, they watched the children and specifically observed their masculinity-femininity. The children were then rated on a five-point scale from masculine-sissy to entirely masculine for the boys and from feminine-tomboy to coquette for the girls. In another unstructured situation, they compared dependency behavior of the children to their masculinity-femininity. To ascertain the dependency they used the following scale to rate each behavior unit: (1) negative attention seeking, (2) reassurance seeking, (3) positive attention seeking, (4) touching and holding, and (5) being near. In a third unstructured situation, they assessed the masculinity and femininity of the children by observing the playground areas in which they chose to play. Certain play areas, because of the activities in those areas, were designated as high masculine or feminine. The amount of time spent by each child in each area was recorded; and from this record, the masculine or feminine play preference of each child was determined. Sears, Rau, and Alpert

found a very low correlation between this assessment and projective tests they used.

Sears, Rau, and Alpert (1965) also measured masculinity-femininity by observing children in a structured situation. Each child was presented with 14 toys, seven masculine and seven feminine; from these each was allowed to choose eight toys. After the toys were chosen, all were removed, except the first choice sex-appropriate toy and the first choice sex-inappropriate toy. The rating of masculinity or femininity was then based on the child's responses to these toys; for example, the amount of time the child played with the sex-appropriate toy was compared to the amount of time he played with the sex-inappropriate toy.

Goldberg and Lewis (1969) were interested in the observation of sex-differences in the behavior of 13-month-old children. They used a structured situation in which they observed the behavior of the children when a barrier screen was placed between the child and the mother. Marked sex differences were apparent; the infant boys more frequently attempted to solve the problem and the infant girls more frequently responded emotionally.

Projective Techniques

Projective techniques consist of providing a non-identifiable object or person and expecting the child to respond in a way that reveals something about himself. Currently, the most widely used masculinity-femininity test of this type is the It Scale, developed by Brown (1957).

The It Scale consists of a neutral stick figure for which the child is asked to choose clothes and toys. The child's masculine or feminine score is related to the choices he makes. This test was originally developed for use with preschool children, but later was used with young school children. (Brown, 1957).

Hartup and Zook (1960) varied the It Scale by calling the neutral figure a little boy or a little girl, and also by using the child's name to identify the figure. This change resulted in scores that were more masculine for the boys and more feminine for the girls.

Landreth (1963) used a projective test to study the sex appropriateness of parental care and companionship activities. She used line drawings of situations in which a child demanded parental care or parental companionship. The child being tested was shown two pictures of a like-sex child, one with the mother and one with the father, and was asked, "Who helps (or plays with) the little boy (girl)?" and "Who helps (or plays with) you?" The assumption in a projective test of this type is that the child will identify with the child in the picture; however, one group of boys in this study showed a reversal of results when the wording of the questions was changed from a "boy" to "you." This reversal signifies that these boys did not completely identify with the pictured child when he was merely identified as a boy.

Emmerich (1959) used a structured doll play projective technique to study the child's expectation of parental attitudes and his identification with each parent. Using dolls representing a father, a mother, a like-sex child (with whom the child was expected to identify), and a baby, Emmerich presented 24 situations to each child.

In the first 16 situations the child was expected to show his parents' nurturance or control toward the child doll. In the last eight situations the child showed his own nurturance or control through the child doll's reactions to the baby. The similarity between the nurturance shown by the child, as rated on a nurturance-control scale, and that shown by each parent indicated the degree to which the child identified with each of his parents.

Relevant Research Findings on Sex-Role Identification

Several researchers have noted differences in the parental responses to young boys and girls and have related these differences to sex-role identification. Some researchers have stressed cultural differences in sex-role identification, some have studied identification with parents in relation to sex-role identification, and others have stressed the consistency in the process of sex-role identification for boys and girls.

Bieliauskas (1960) found that individual evidences of masculinity-femininity were strongly influenced by the culture. Anastasi and Foley (1949) found that while measures of aptitudes and personality characteristics yielded significant differences between the sexes, there was much overlapping of characteristics between the sexes; that is, some boys displayed characteristics that were more feminine than those of some girls. Lynn (1959) found the girls in our culture had much greater freedom in what was considered acceptable feminine behavior than the boys had for masculine behavior. He hypothesized that with advancing age boys become more firmly identified with the masculine role and girls

become less firmly identified with the feminine role. The fact that the masculine role is the preferred role in our culture was offered as one reason that a larger percentage of girls than boys show preference for the opposite-sex role.

Lynn (1964) theorized that boys are furnished with initial identification with their mothers, and then they learn that their sex-role behavior should be unlike their mothers' behavior; therefore, they actually learn sex-role behavior as something they should not do. Goldberg and Lewis (1969) in a study of six-month-old infants found that the mothers of infant girls touched, talked to, and handled their infants more than the mothers of infant boys did. In a follow-up study when the same infants were 13 months old, the girls showed less exploratory behavior and were more quiet in their play than were the boys. Johnson (1963) believed the father to be the primary source of sex-differentiation for both sexes. He found that in nuclear families the fathers were expressive in their relations with daughters, but that they were both expressive and demanding in their relations with sons. Mothers seemed to be equally expressive to children of both sexes. Emmerich (1959) in a study of the parental identification of preschool children, found that boys selected the father more often than the mother, while the girls showed no significant difference in their choice of father or mother as the object for identification. The boys also saw fathers as more controlling and mothers as more nurturant, while the difference was not significant for the girls. Hetherington (1965) found parental dominance was related to sex-role preference and identity. For children ranging in age from four to 11, older children were more

apt to resemble the dominant parent, particularly when the dominant parent was the mother.

Brown (1957) found that boys were more consistent than girls in sex-role preference at each age from five to 11 years. In a study of 613 children, he found that 63 percent of the boys responded with high masculine preference, 33 percent with mixed preference, and four percent responded with high feminine preference; whereas, he found that only 17 percent of the girls responded with high feminine preference, 43 percent with mixed preference, and 40 percent responded with high masculine preference. For these children a majority of the boys responded with the socially expected preference for boys, while only a small number of girls responded with the socially expected preference for girls.

McKinzie (1968) found no significant age differences in masculinity-femininity scores for boys three to five years old; whereas, the scores for the girls of these ages showed greater femininity for the five-year-old girls. She also found social class differences in the masculinity-femininity scores of girls. In the middle SES group four-year-old girls were more feminine than the three-year-olds; and in the lower SES group four-year-old girls were less feminine than the three-year-olds.

Summary and Implications

Research findings indicate that sex-role identification has been studied by a variety of methods, including interviews, observations, and projective techniques. Some of the findings that research has produced are that sex role is influenced by differences in cultural

expectations, by differences in parental models, and by differences in child-rearing practices. Research has also found that boys seem to play a more consistent sex role while girls vary in their portrayal of their sex role.

This research is concerned with sex-role identification and is specifically focused on the relationship between the masculinity-femininity of preschool children and their conformity to their parents. A test of masculinity-femininity is used to determine the extent to which the children present a clear sex role in their behavior. A test of social conformity is used to measure the extent to which the children are influenced by parental models. In both tests the actual behavior of the children in a structured situation provides the data in order to avoid the possible fallacy of judgment by adult standards.

CHAPTER III

METHOD AND PROCEDURE

The purpose of this study was to investigate the relationship between masculinity and femininity of preschool children and their conformity-nonconformity to their parents. Age differences in masculinity-femininity and conformity-nonconformity were examined, and the relationship between these two qualities was investigated in an attempt to gain an increased understanding of sex-role identification. This chapter includes a description of children who participated in the research, descriptions of the research instruments used to measure masculinity-femininity and conformity-nonconformity, and recommendations for the analysis of data.

Subjects

The children who participated in this study were 30 boys and 30 girls, all of middle socioeconomic class. Each child was from a home in which both father and mother resided. These children were in attendance at a private nursery school either in Stillwater, Oklahoma, or in Oklahoma City, Oklahoma. The children ranged in age from three years, no months to five years, eleven months. Descriptive data and test scores for the individual children are presented in Appendix A, Table IX.

Research Instruments

Masculinity-Femininity Test

The Starkweather M-F Test, developed as a part of the creativity research program at Oklahoma State University, was selected for use in the present research. This test is designed to measure the masculine and feminine preferences of preschool children with the evaluation of what is masculine and what is feminine based on the actual choices of the children being tested. The assumption underlying this design is that the behavior of boys is boy-behavior (masculine) and the behavior of girls is girl-behavior (feminine). A complete description of this test, its administration, and its scoring is presented in Appendix B.

The Starkweather M-F Test consists of a picture booklet of 20 to 24 pages. (For the present research a booklet of 22 pages was used.) On each page there are three different gummed seal pictures which are arbitrarily chosen and arranged by the investigator so that a masculine, a feminine, and a neutral picture appear on each page. As the child is shown the booklet, page by page, he chooses the picture on each page that he prefers and he is given an identical picture to keep.

Each child's M-F score is based on the masculine or feminine value of each picture he chooses. The value of each picture is determined by the specific choices of all the children in the study. For example, a picture chosen by a majority of the boys and by few of the girls is weighted heavily as masculine. This method of scoring provides a measure of masculinity-femininity which is based

on the actual choices of the children themselves rather than being based on the judgments of adults. A detailed explanation of this scoring method is presented in Appendix B. For the children who participated in the present study, the possible range of M-F scores was from -155 (high feminine) to +168 (high masculine). The actual range of scores was from -132 to +128. The masculine or feminine value of each picture in the Starkweather M-F Test booklet, as determined by the choices of the children in this study is presented in Table I. A sample score sheet for the Starkweather M-F Test for Child M-1757 is presented in Figure 1, page 21.

Social Conformity Test

The Starkweather Social Conformity Test, hereafter referred to as the Starkweather Conformity Test, was selected for use in the present research. This test, developed as a part of the creativity research program at Oklahoma State University, was originally designed to measure a child's tendency to conform to his peers. A complete description of this test, its administration, and its scoring is presented in Appendix C. For the present research the Starkweather Conformity Test was adapted to measure conformity to parents and was administered twice, once for conformity to father and once for conformity to mother.

The Starkweather Conformity Test, as administered in the present research, gives each child the opportunity to conform to his father and to his mother by constructing picture booklets, page by page, identical to or different from booklets constructed for his parents. Colored pages are presented in pairs and the child makes a color

TABLE I

M-F SCORE VALUES OF INDIVIDUAL PICTURES
AS DETERMINED BY THE CHOICES OF
30 BOYS AND 30 GIRLS

Page	Pictures*			Page	Pictures		
1.	+07	-12	+05	12.	-12	+14	-02
2.	-11	+03	+08	13.	+06	-03	-03
3.	-05	+14	-09	14.	+01	-03	+02
4.	+03	+04	-07	15.	-03	+10	-07
5.	-02	-08	+10	16.	+05	00	-05
6.	-04	+17	-13	17.	-06	-03	+09
7.	+08	-05	-03	18.	-06	+11	-05
8.	-08	+05	+03	19.	+03	+02	-05
9.	+03	+02	-05	20.	-03	00	+03
10.	+11	-03	-08	21.	-03	+05	-02
11.	00	-03	+03	22.	+02	+11	-13

*The score values for the three pictures on each page are presented here in the order in which the pictures themselves appear in the Starkweather M-F Test booklet. For example, on Page 1, from left to right, the pictures were a poodle, a baby, and a butterfly; and their respective values were +07, -12, and +05.

STARKWEATHER MASCULINITY-FEMININITY TEST

FOR PRESCHOOL CHILDREN

Name Child M-1757 Sex M Number 1757

Date 11-27-69 Birthdate 12-12-63 Age 5:11

Testing Place Stillwater

	Pictures			Score		Pictures			Score
1.	✓			+7	12.		✓		+14
2.			✓	+8	13.			✓	-3
3.			✓	-9	14.		✓		-3
4.			✓	-7	15.			✓	-7
5.		✓		-8	16.	✓			+5
6.			✓	-13	17.	✓			-6
7.	✓			+8	18.	✓			-6
8.		✓		+5	19.	✓			+3
9.			✓	-5	20.	✓			-3
10.			✓	-8	21.	✓			-3
11.			✓	+3	22.		✓		+11

Total -17

Figure 1. A sample score sheet for Child 1757 for the Starkweather M-F Test.

choice in selecting each page for his own booklet. These paired colors are presented to the child in such a way that he has an opportunity to choose between red and blue, for example, when his parent receives red and again when his parent receives blue.

The assumption underlying the design of the conformity test is that the child who really prefers one of the two colors will choose that color on both occasions if he is free to use conforming and nonconforming behavior, whereas, the conformist will choose the preferred color only when his parent receives it and the nonconformist will choose the preferred color only when his parent does not receive it.

Each child's tendency to conform is expressed in terms of a D-score (difference score) which is figured by subtracting the number of nonconforming responses from the number of conforming responses. The strength and direction of the child's conforming behavior are both indicated in this one score, with the possible range of D-scores being from +20 (complete conformity) to -20 (complete nonconformity). A sample score sheet for the Starkweather Conformity Test for Child 1757 is presented in Figure 2, page 22.

Analysis of Data

The data were analyzed for age and sex differences for conformity to fathers and conformity to mothers and were analyzed for age differences in masculinity-femininity. Chi-square, Mann-Whitney U-Test, and Kruskal-Wallis analysis of variance were used for these analyses.

STARKWEATHER SOCIAL CONFORMITY TEST

FOR PRESCHOOL CHILDREN

Name Child M-1757 Sex M Number 1757

Birthdate 12-12-63 Date 12-4-69 Age 5:11

Color Preferences: 1st-A Pink 4th-B Black

7th-C Purple 10th-D Brown 13th-E Lt. Blue

Testing Place Stillwater

Conformity to Mother				Conformity to Father			
	M		M		F		F
1.	A (B)	11.	C (D)	1.	(A) B	11.	(C) D
2.	C (D)	12.	A (B)	2.	(C) D	12.	A (B)
3.	E (A)	13.	E (C)	3.	(E) A	13.	E (C)
4.	(C) B	14.	D (A)	4.	(C) B	14.	D (A)
5.	D (E)	15.	B (E)	5.	(D) E	15.	B (E)
6.	(A) C	16.	A (C)	6.	A (C)	16.	A (C)
7.	(B) D	17.	D (E)	7.	(B) D	17.	D (E)
8.	(E) C	18.	C (B)	8.	(E) C	18.	C (B)
9.	(D) A	19.	E (A)	9.	(D) A	19.	E (A)
10.	(B) E	20.	B (D)	10.	(B) E	20.	B (D)
Conformity:	16			Conformity:	18		
Nonconformity:	−4			Nonconformity:	−2		
D-Score:	+12			D-Score:	+16		

Figure 2. A sample score sheet for Child 1757 for the Starkweather Social Conformity Test.

The relationship between masculinity-femininity scores and conformity to mothers and fathers was analyzed for boys and girls separately. Chi-square, Mann-Whitney U-Test, and Kruskal-Wallis analysis of variance were also used for these analyses.

CHAPTER IV

RESULTS

The purpose of this study was to investigate the relationship of masculinity-femininity to preschool children's conformity to their fathers and mothers. A test of masculinity-femininity and a test of social conformity were administered to each of the 60 children studied. Descriptive data and individual test scores are presented in Appendix A, Table IX.

The data provide three scores for each child: (1) a masculinity-femininity score, (2) a score indicating the direction and the strength of conformity to father, and (3) a score indicating the direction and strength of conformity to mother. The data were analyzed for age differences in masculinity and femininity, for age and sex differences in conformity to parents, and for the relationship between conformity to parents and masculinity or femininity. Median scores and ranges, by age and sex, are presented in Table II.

Masculinity-Femininity

The Starkweather M-F Test score for each child indicates the extent to which his choices were those of the other like-sex children participating in this study. The possible range of scores was from -155 (highly feminine) to +168 (highly masculine); the actual range of scores was from -132 to +138.

TABLE II

TEST RESULTS: MEDIAN SCORES AND RANGES
BY SEX AND AGE
(N = 60)

Test and Age Group	Boys		Girls	
	Median	Range	Median	Range
Masculinity-Femininity				
Five-year-olds	+53	-17 to +106	-71	-132 to +11
Four-year-olds	+90	+05 to +122	-50	-117 to +14
Three-year-olds	+67	-09 to +128	-12	-66 to +34
Conformity to Fathers				
Five-year-olds	+07	-14 to +20	-02	-06 to +20
Four-year-olds	-02	-14 to +02	-04	-12 to +10
Three-year-olds	-02	-08 to +06	00	-08 to +18
Conformity to Mothers				
Five-year-olds	+07	-04 to +20	-01	-10 to +12
Four-year-olds	-02	-14 to +02	-05	-08 to +02
Three-year-olds	-02	-08 to +06	00	-04 to +12

*Subjects equally distributed with 10 boys and 10 girls in each age group.

The Kruskal-Wallis analysis of variance was used to determine the significance of age differences in Starkweather M-F Test scores (Table III). For boys, there were no significant age differences in masculinity ($H = 1.95$; n.s.); but for the girls, age differences were found. The older girls scored significantly higher in femininity than did the younger girls ($H = 7.78$; $p < .05$). Mann-Whitney U-Test analysis of the data for girls showed the major difference in the Starkweather M-F Test scores to be between those of the three-year-old girls and those of the five-year-old girls ($U = 13.5$; $p < .01$).

TABLE III

KRUSKAL-WALLIS ANALYSIS OF VARIANCE:
ANALYSIS OF M-F SCORES BY AGE
(N = 60)

	Median Scores	
Age Group	Boys	Girls
Five-year-olds	+53	-71
Four-year-olds	+90	-50
Three-year-olds	+67	-12
H:	1.95 n.s.	7.78 p<.05

Conformity to Parents

Each child has two conformity scores, one indicating his response to the opportunity to conform to his father and the other indicating his response to the opportunity to conform to his mother. A low score (less than 4) indicates the child responded freely, that is

he was not influenced by the opportunity to conform. A high score (4 or more) indicates a response that was conforming (+) or nonconforming (-). The possible range of scores in this study was from -20 (complete nonconformity) to +20 (complete conformity). The actual range of scores was from -14 to +20.

Chi-square analysis indicated there were no significant age differences in conformity scores for boys or for girls. The distribution of these scores is presented in Table IV.

Chi-square analysis also indicated there were no significant sex differences in conformity scores. The distribution of these scores is presented in Table V.

Relationship between Masculinity-Femininity and Conformity to Parents

Chi-square analyses showed no significant relationships between conformity scores and masculinity or femininity, when scores for conformity to mother and scores for conformity to father were considered separately. However, when compared to the high masculine boys, the less masculine boys showed a tendency toward more frequent conformity to fathers (Chi-square = 3.184; $p < .10$). The distribution of these scores is presented in Table VI.

The relationship between masculinity-femininity and conformity to parents was further analyzed by examining the masculinity-femininity scores of children who were conforming toward both parents, those who were conforming toward one parent, and those who responded freely instead of conforming. The distribution of boys' M-F scores is presented in Table VII, and the distribution of girls' M-F scores is presented in Table VIII. The Kruskal-Wallis analysis of variance

TABLE IV

DISTRIBUTION OF CONFORMITY SCORES BY AGE
(N = 60)

		Age Group: expressed in years and months		
		3:0 to 4:6	4:7 to 5:11	X^2
Conformity to Mother				
Boys:	Conforming*	10	7	0.09
	Free	7	6	n.s.
Girls:	Conforming	7	7	0.13
	Free	7	9	n.s.
Conformity to Father				
Boys:	Conforming	9	8	0.19
	Free	8	5	n.s.
Girls:	Conforming	6	9	0.53
	Free	8	7	n.s.

*Conforming: A score of 4 or more, either positive or negative.
Free: A score of less than 4.

TABLE V

DISTRIBUTION OF CONFORMITY SCORES BY SEX
(N = 60)

	Boys	Girls	χ^2
Conformity to Mother			
Conforming (+4 and more)	9	5	
Free (-2 to +2)	13	14	
Nonconforming (-4 and less)	8	11	1.65 n.s.
Conformity to Father			
Conforming (+4 and more)	9	6	
Free (-2 to +2)	13	15	
Nonconforming (-4 and less)	8	9	0.27 n.s.

TABLE VI

DISTRIBUTION OF CONFORMITY SCORES IN RELATION TO HIGH AND LOW MASCULINITY-FEMININITY SCORES (N = 60)

	Conformity Score		
	Free	Conforming	
	Less than 4	4 and more	χ^2
Conformity to Mother			
Boys: High Masculine	6	7	0.09
Low Masculine	7	10	n.s.
Girls: High Feminine	6	9	0.52
Low Feminine	8	7	n.s.
Conformity to Father			
Boys: High Masculine	8	5	3.18
Low Masculine	5	12	$p < .10$
Girls: High Feminine	9	6	1.20
Low Feminine	6	9	n.s.

TABLE VII

KRUSKAL-WALLIS ANALYSIS OF VARIANCE: DISTRIBUTION OF BOYS M-F SCORES IN RELATION TO HIGH AND LOW CONFORMITY TO PARENTS
(N = 30)

Conformity Scores		
High to both parent	Low to one parent	Low to both parents
+82	+128	+121
+79	+122	+94
+60	+118	+73
+50	+113	+58
+50	+106	+50
+46	+91	+43
+38	+89	+05
+16	+89	
+05	+60	
-09	+55	
-17	+21	
	+14	
n = 11	n = 12	n = 07
R = 231.0	R = 126.5	R = 107.5
H = 8.077; p .02		

TABLE VIII

KRUSKAL-WALLIS ANALYSIS OF VARIANCE: DISTRIBUTION OF GIRLS' M-F SCORES IN RELATION TO HIGH AND LOW CONFORMITY TO PARENTS
(N = 30)

Conformity Scores		
High to both parent	Low to one parent	Low to both parents
+09	+34	+07
+02	+27	-09
-20	+14	-14
-44	+11	-44
-47	+06	-50
-60	-41	-71
-66	-50	-116
-117	-54	-120
-132	-58	
	-60	
	-71	
	-72	
	-109	
n = 09	n = 13	n = 08
R = 153.0	R = 177.5	R = 134.5
H = 0.987; n.s.		

indicated that boys who were conforming toward both parents were significantly less masculine than boys who were conforming toward one parent or neither parent ($H = 8.077$; $p < .02$). A further analysis of these data, using the Mann-Whitney U-Test, supported the finding that boys who were conforming toward both parents were significantly less masculine than all other boys in the study ($U = 44$; $p < .02$).

The Kruskal-Wallis analysis of variance indicated no significant difference in femininity scores for girls when the girls who were conforming to both parents were compared to those who were conforming to one parent and those who were conforming to neither parent ($H = 0.987$; n.s.).

Summary of Findings

1. There were no significant age differences in the M-F scores of boys.

2. There were significant age differences in M-F scores of girls. Younger girls were less feminine than older girls.

3. There were no significant age differences or sex differences in conformity to parents.

4. Boys who were conforming toward both parents were significantly less masculine than all other boys.

5. For girls there was no relationship between femininity and conformity to parents.

CHAPTER V

SUMMARY AND IMPLICATIONS

The purpose of this study was to investigate the relationship between masculinity and femininity of preschool children and their conformity-nonconformity to their parents. Age differences in masculinity-femininity and conformity-nonconformity were examined, and the relationship between these two qualities was investigated in an attempt to gain an increased understanding of sex-role identification.

The children who participated in this study were 30 boys and 30 girls, ranging in age from three years, no months to five years, eleven months. All were from homes in which both father and mother resided, and all were in attendance in private nursery schools.

Two research instruments, developed as a part of the creativity research program at Oklahoma State University and designed for use with preschool children, were selected for use in this research. Masculinity-femininity was measured with the Starkweather M-F Test, which is designed so that the evaluation of what is masculine and what is feminine is based on the actual choices of the children being tested, rather than being based on adult judgments. Conformity to father and mother was measured with the Starkweather Social Conformity Test, which is designed so that each child has the opportunity for conforming, nonconforming, or free behavior as he constructs picture booklets for his parent and himself.

The data provide three scores for each child: (1) a masculinity-femininity score, (2) a score indicating the direction and the strength of conformity to father, and (3) a score indicating the direction and strength of conformity to mother. These data were analyzed for age and sex differences for conformity to fathers and conformity to mothers and were analyzed for age differences in masculinity-femininity. The relationship between masculinity-femininity scores and conformity to mothers and fathers was analyzed for boys and girls separately. Chi-square, Mann-Whitney U-Test, and Kruskal-Wallis analysis of variance were used for these analyses.

The findings of this research were as follows: (1) There were no significant age differences in the M-F scores of boys. (2) There were significant age differences in M-F scores of girls. Younger girls were less feminine than older girls. (3) There were no significant age differences or sex differences in conformity to parents. (4) Boys who were conforming toward both parents were significantly less masculine than all other boys. (5) For girls there was no relationship between femininity and conformity to parents.

Implications

The results of this study tend to agree with other research findings concerning masculinity-femininity. As in previous research, the boys show consistent M-F scores, while the girls have higher feminine scores as they grow older.

The results of this study disagree with those of an earlier study by Marx (1969) concerning the relationship between masculinity-femininity and maternal influence. In the Marx study the more

feminine girls and more masculine boys were greatly influenced by their mothers. In the present study the less masculine boys were the ones most influenced by the opportunity to conform, and there was no relationship between the femininity of girls and the opportunity to conform. This conflict in research findings clearly suggests a need for further study in this area.

The Starkweather Social Conformity Test is an inadequate measure of the parent-child relationship and its influence on sex-role identification. The test may measure one aspect of this relationship, but the results are complex and difficult to interpret. For example, the less masculine boys were the ones most influenced by the opportunity to conform; and yet three boys who scored low in masculinity responded in three different ways on the conformity test. Child M-1748 responded freely, Child M-1548 was nonconforming to his father, and Child M-1757 was conforming to his father and his mother. This variety of responses indicates that there are other areas that must be explored, e.g., the quality of the parent-child relationship, before the significance of children's conforming behavior can be understood. The quality of the parent-child relationship had a conspicious influence on the conformity responses for those children who chose the "other" color and freely stated, "Mommy will give me her pictures."

Further study to determine the relationship between masculinity-femininity and conformity to parents is warranted. Two possible variations in the Starkweather Social Conformity Test which might be explored are: (1) Designate one color for the mother and one for the father in each color pair; cause the child to choose a color like

one of the two for his book and thereby, discriminate. (2) Designate one color for the mother, one for the father, and one for neither; cause the child to choose one from three so that he will have the opportunity to be nonconforming, conforming, or free.

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APPENDIX A

TABLE IX

DESCRIPTIVE DATA AND TEST SCORES FOR INDIVIDUAL CHILDREN PARTICIPATING IN A STUDY OF THE RELATIONSHIP BETWEEN MASCULINITY-FEMININITY AND CONFORMITY TO PARENTS (N = 60)

Sex and Code No.	Age	Test Scores			Sex and Code No.	Age	Test Scores		
			Conformity to					Conformity to	
		M-F Score	Mother	Father			M-F Score	Mother	Father
M-1749	3:2	+79	+08	+04	F-1753	3:0	-41	00	-08
M-1745	3:2	+60	-02	-06	F-1743	3:3	-14	00	00
M-1744	3:2	+50	+04	+06	F-1751	3:3	+06	+12	00
M-1746	3:2	+121	+02	00	F-1754	3:4	+27	+06	00
M-1723	3:5	+89	00	-04	F-1750	3:5	-09	00	00
M-1724	3:9	+43	+02	00	F-1728	3:6	-44	00	00
M-1759	3:10	+73	-02	+02	F-1735	3:7	-66	-04	+04
M-1747	3:11	+128	+02	-04	F-1734	3:8	+07	00	00
M-1720	3:11	+46	-04	-08	F-1752	3:9	-54	+04	+02
M-1748	3:11	-09	+04	-04	F-1742	3:11	+34	+02	+18
M-1721	4:0	+91	+04	00	F-1726	4:1	-50	00	-02
M-1762	4:1	+50	00	00	F-1688	4:1	+09	-04	-12
M-1705	4:2	+122	-04	+02	F-1572	4:5	-20	-08	-06
M-1761	4:3	+113	-06	-02	F-1732	4:6	-117	-06	+04
M-1544	4:4	+05	-08	-08	F-1740	4:7	-60	-08	-10
M-1537	4:5	+118	-04	-02	F-1731	4:8	-60	+02	+10
M-1548	4:6	+16	-08	-14	F-1571	4:9	-72	-08	-02
M-1764	4:9	+05	00	-02	F-1741	4:9	+02	-06	-06
M-1760	4:10	+94	+02	-02	F-1733	4:10	-50	-04	00
M-1704	4:11	+89	-04	00	F-1739	4:11	+14	+02	-08
M-1758	5:1	+82	+04	+08	F-1755	5:2	-116	00	+02
M-1500	5:3	+50	+06	+10	F-1512	5:2	-47	+04	-04
M-1645	5:3	+21	+02	-04	F-1481	5:5	-44	-10	-06
M-1736	5:4	+58	00	00	F-1730	5:6	-120	00	00
M-1719	5:5	+38	+14	+18	F-1727	5:7	-132	+12	+20
M-1722	5:6	+106	+02	+20	F-1460	5:8	-71	-06	-02
M-1543	5:8	+60	+06	+06	F-1737	5:10	-109	00	-06
M-1547	5:8	+55	-06	00	F-1725	5:10	-58	-04	00
M-1518	5:9	+14	-02	+04	F-1756	5:11	-71	00	-02
M-1757	5:11	-17	+12	+16	F-1738	5:11	+11	-02	+04

APPENDIX B

STARKWEATHER MASCULINITY-FEMININITY TEST

FOR PRESCHOOL CHILDREN*

developed by

Elizabeth K. Starkweather

Oklahoma State University
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 actual choices of the children being tested. The assumption underlying this design is that the behavior of boys is boy-behavior (masculine) and the behavior of girls is girl-behavior (feminine).

The materials for the M-F Test include a picture booklet of 20 to 24 pages and individually mounted pictures, identical to those used in the test booklet. The pages in the test booklet are of colored hi-gloss paper approximately 3" x 8" in size. Hi-gloss paper comes in a variety of colors and no color needs to be used for more than two pages in the test booklet. On each page there are three pictures (gummed seals) which are arbitrarily selected as masculine, feminine and neutral. This 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 are selected to 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", which are the same color as the test booklet pages on which the pictures appear.

Administration

Each child is introduced to the M-F Test by being told that he is going to make a picture book 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 in his own picture book. This procedure is repeated until the child has chosen one picture from each page in the test booklet.

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*The Starkweather M-F Test was developed as part of a creativity research program supported by the Research Foundation at Oklahoma State University.

Scoring

Each picture in the M-F Test booklet is assigned a score, a masculine or feminine value, which is determined by the specific choices of all the children in the study. 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 then figured by adding the masculine and feminine values of all the pictures he has chosen.

This method of scoring provides a measure of masculinity-femininity which is based on the actual choices of the children themselves rather than being based on the judgments of adults.

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 true, the score values assigned to the pictures are figured by subtracting the number of girls from the number of boys who chose each picture. In the 1968 DKM 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 are only for use in scoring the M-F Tests of the children who participated in that study. In the 1969 KGM Study, the assigned numerical values for these same pictures were smaller because fewer children participated in that study; nevertheless, the relative values remained the same, the pony was masculine (+20) and the baby was feminine (-17).

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 the 1967 SKW Study is illustrated. In this study there were 17 boys and only 15 girls. Weighting to correct for this inequality was achieved by multiplying the number of girls who chose each picture by 1.133; n.b., $17 \div 15 = 1.133$. The weighted scores thus obtained for the girls were then subtracted from the scores for the boys. In Figure 2, the picture of the baby was chosen by three of the 17 boys and was chosen by seven of the 15 girls. When the girls score was weighted, i.e., multiplied by 1.133, it became 7.93, and the assigned value for the picture of the baby was then -4.93.

The attached score sheet illustrates the way in which a child's choice of pictures is recorded and his M-F score is figured from the assigned values for each of the chosen pictures.

Evaluation

The reliability of the Starkweather M-F Tests was determined by a split-half correlation, using the Spearman-Brown modified formula. Each child's responses to the odd items and the even items on the test provided the two scores necessary for this analysis. A coefficient of +0.936, significant beyond the .001 level, indicated that the M-F Test was highly reliable, i.e., had internal consistency.

The Starkweather M-F Test was designed to discriminate between the picture preferences of boys and girls, and it does achieve this purpose for which it was designed. A Mann-Whitney U test analysis of the scores of 32 preschool children indicated that the boys and girls had significantly different picture preferences. ($U = 1.00$; $p < .002$). The M-F Test was accepted as having face validity.

A unique quality of the Starkweather M-F Test is that the bias of adult judgments is avoided in the scoring, an achievement which has not been possible when researchers have used other measuring devices. For the most part, where young children are concerned, masculinity and femininity are judged on the basis of behavior and appearance. For example, adults judge a girl to be a tomboy if her preferred activities, games, toys, playmates and clothing are more "appropriate" for boys than for girls. The rather common acceptance of judgments such as this suggested the possibility of designing a validation test which would measure masculinity and femininity as culturally defined. The validity of the M-F Test would be assured if the test scores, free of adult bias, were in agreement with the cultural expectations for young boys and girls.

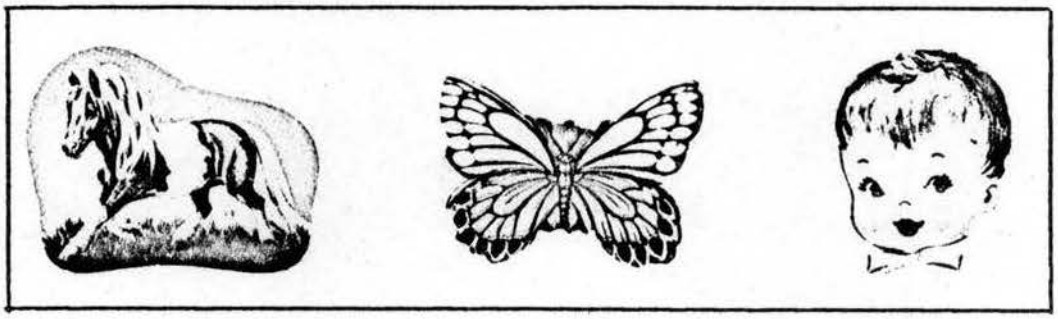
A validation test booklet was constructed similar in design to the M-F Test booklet. It consisted of 15 pages of clothing and 15 pages of toys and activities. Each page contained three pictures which were arbitrarily chosen as masculine, feminine and neutral. The booklet was shown to 20 middle-class adults (10 men and 10 women) who were asked to indicate the most masculine and the most feminine picture on each page. For example, on one page the three pictures were boys' pajamas, girls' pajamas and a nightgown. Without exception, the adults chose the boys' pajamas as the most masculine and the nightgown as the most feminine.

The validation booklet was then shown to 20 middle-class children (10 boys and 10 girls). Each child was asked to play a game of "Let's pretend" during which the experimenter told a story as the child made his choices. For example, as the child looked at a page showing three types of outdoor clothing, the experimenter said, "Let's suppose it is time to go out to play. What would you like to wear outside?" Then as he looked at the next page which showed three different toys, the experimenter said, "Let's suppose you are now outside and these toys are in the yard. Which one would you like to play with today?"

The method of scoring the validation test was the same as the method of scoring the M-F Test. Assigned scores for each picture in the validation booklet were figured for the adults and for the children. The adults agreed unanimously on the masculinity and femininity of the majority of the pictures, but the children showed greater flexibility in their choices. Nevertheless, there was extremely high agreement between the two sets of assigned scores. There were 90 individual pictures in the validation booklet, and the adults and children agreed on the masculine, feminine or neutral rating of 86 of these.

In order to answer the question of whether the M-F Test actually measured masculinity and feminity, the children's scores derived from their choices of pictures in the validation booklet, which were in agreement with cultural expectations, were compared to their M-F Test scores. The children's scores on the validation test ranged from -192 to +198, indicating a range from high feminine to high masculine preferences. (The maximum possible range was from -207 to +208.) The scores for these same children on the M-F Test ranged from -58 to +48, again indicating a range from high feminine to high masculine preferences. (The maximum possible range for these scores was from -73 to +67.)

The two sets of scores for the 20 children who participated in the validation study were compared in order to determine whether the M-F Test, which is completely free of adult bias, actually does measure masculinity and femininity. A Spearman rank order correlation was used in the analysis of the relationship between these two sets of scores. The correlation coefficient was +0.914, significant beyond the .01 level. In view of these results, the Starkweather M-F Test for preschool children is accepted as a valid measure of masculinity and femininity.



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

1969 KGM 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 SKW 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.

STARKWEATHER MASCULINITY-FEMININITY TEST

FOR PRESCHOOL CHILDREN

Name Child M-1372 Sex M Number 1372

Date 1-4-68 Birthplace 9-24-63 Age 4:3

Testing Place Stillwater

	Pictures			Score
1.			✓	+03
2.	✓			−04
3.			✓	−16
4.			✓	−14
5.	✓			+05
6.		✓		+01
7.	✓			+03
8.	✓			00
9.	✓			−05
10.	✓			+17
11.		✓		−15
12.			✓	+02
13.	✓			+14
14.	✓			−05
15.	✓			−12
16.		✓		+13
17.	✓			00
18.	✓			−16
19.	✓			+04
20.		✓		+07
21.		✓		+20
22.	✓			+40
23.	✓			+15
24.	✓			−14

Total +43

APPENDIX C

STARKWEATHER SOCIAL CONFORMITY TEST

FOR PRESCHOOL CHILDREN*

Elizabeth K. Starkweather

Oklahoma State University
Stillwater, Oklahoma

The Starkweather Social Conformity Test is a research instrument designed to measure conforming and nonconforming behavior by providing the young child with opportunities to make choices in a situation in which he can follow a model or respond freely according to his own preferences. The test discriminates between children who are compulsive conformists or nonconformists and children who are free to use either conforming or nonconforming behavior.

The social conformity test was designed to meet the following criteria: (a) The compulsive quality and the conforming quality of a child's behavior must be measured independently. The child who is a compulsive nonconformist is just as rigid as the child who is a compulsive conformist. (b) The test must be adjustable in order that the opportunity to conform be of similar potency for all children. Conforming behavior is common when a child has an opportunity to conform to persons he likes, whereas the reverse is true in the case of persons he dislikes. Similarly, conforming behavior is to be expected when it involves the choice of a preferred object.

The social conformity test is based on color preferences and is adjusted to the actual preferences of individual children. A pretest provides an opportunity for each child to indicate his color preferences. Then in the test proper, each child is given opportunities to conform as he constructs a picture booklet, page by page, identical to or different from booklets constructed for other persons (e.g., parents or peers).

Color Preference Pretest

A color wheel, consisting of 13 different colored strips of paper attached to a cardboard disc, is presented to the child. He ranks these colors by first tearing off the one he likes best, and then continuing, one color at a time, until he has torn all colors from the disc. The five colors ranked as 1, 4, 7, 10 and 13, are then used in

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the testing of that particular child. In this way for each child the social conformity test includes colors which he prefers and colors which he does not prefer. This adjustment is made to assure that the opportunity to conform will be of similar potency for all children tested.

The reliability of this method of determining color preferences was tested by administering the color wheel twice to a group of 29 children and analyzing their responses for consistency of color preferences. In this analysis, a color was accepted as retaining its relative position if its rank changed no more than three places from the first to the second session. The colors which were high-ranking (#1 and #4) and low-ranking (#10 and #13) during the first session did retain their relative positions during the second session. (X^2 = 29.217; $p < .001$).

Construction of Picture Booklets

The social conformity test gives each child opportunities to conform to other persons while constructing a small picture booklet of colored pages (2" x 3"). When the focus is on conformity to peers, the child is asked to name three friends; then three identical pages (e.g., the picture of a cow on a red page) are placed before the child and he is told that these are for his friends. He is then given his choice between a page identical to those for his friends and a page of a different color (e.g., the picture of a cow on a blue page.) For these choices, the five colors selected in the pretest are arranged in pairs, each color being paired with every other color twice, making a total of 20 pairs. These are presented to the child in such a way that he has an opportunity to choose between red and blue, for example, when his friends receive red and again when his friends receive blue. The assumption underlying this design is that the child who really prefers one of the two colors will choose that color on both occasions if he is free to use conforming or nonconforming behavior, whereas the conformist will choose the preferred color only when his friends receive it, and the nonconformist will choose the preferred color only when his friends do not receive it.

The sequence in which the paired colors are presented to each child is shown on the attached score sheet. In this sequence no color appears in two consecutive pairs and each color appears on the right and on the left an equal number of times. The conforming color, i.e., the color given to the firends, is the color on the left during the first half of the sequence and on the right during the last half; thus the child who chooses all colors from one side, for whatever reason, would appear to be conforming half the time and nonconforming half the time, and the resulting test score of zero would accurately indicate that he had not been influenced by the opportunities to conform.

Scoring

The scoring of the social conformity test consists of a numerical count of the conforming and nonconforming responses made by the child. A D-score, or difference score, is then figured by subtracting the number of nonconforming responses from the number of conforming responses. The possible range of D-scores is from -20 (complete nonconformity) to +20 (complete conformity).

Evaluation

The Starkweather Social Conformity Test was administered to 200 children, ranging in age from two years six months to five years eleven months. The children were assigned to experimental and control groups, matched according to sex and age (within four months). For the children in the experimental group, the test was administered first with an opportunity for conformity to peers (three friends) and again with an opportunity for conformity to parents. For the children in the control group, the test situation provided no opportunity to conform. Data obtained from these three test situations were analyzed to determine whether the opportunity to conform did influence the responses of the children, and to determine whether the influence was greater in one situation than in another. If the social conformity test provided a valid measure of the influence (positive or negative) of the opportunity to conform, then the children in the experimental group should have larger D-scores than the children in the control group. (For the control group, the distribution of conforming and nonconforming responses would be the result of chance, and the D-scores for this group should approximate zero.)

An analysis of the frequency of large and small D-scores indicated that the children in the experimental group were influenced by the opportunity to conform to parents. ($X^2 = 8.219$; $p < .01$). A similar analysis of the responses of these children when given an opportunity to conform to peers showed no difference between their responses and those of the children in the control group. ($X^2 = 1.020$; n.s.). These results indicate that the social conformity test does measure the influence of the opportunity to conform, and to this extent it is a valid instrument. For the young children who participated in this study, the opportunity to conform to parents was a more potent influence than the opportunity to conform to peers.

The internal consistency of the social conformity test was determined by a split-half analysis of the responses of the children when they had an opportunity to conform to parents. The number of conforming responses made by each child during the first and last half of the test were used in this analysis. The Spearman-Brown formula yielded a correlation coefficient of +0.779 ($p < .01$). (For this and subsequent analyses, the experimental group was enlarged to include 20 boys and 20 girls in each of the three age groups: three-year-olds,

four-year-olds and five-year-olds.)

In the design of the social conformity test, the assumption was made that strong likes and dislikes would influence a child's conforming behavior. The validity of this assumption was demonstrated in an analysis of the number of times that the children accepted and rejected their favorite color and their least liked color. When conforming required that a child accept one or the other of these two colors, the favorite color was more frequently accepted. ($X^2 = 38.861$; $p < .001$). When conforming required that the child reject one of these two colors, the least liked color was the more frequently rejected. ($X^2 = 69.962$; $p < .001$).

The data were further analyzed for age and sex differences. No significant age differences in conforming behavior were apparent; however, there were marked sex differences. Of the 120 children in the group, 41 had large D-scores. Boys and girls were influenced by the opportunity to conform to parents; however, the girls were primarily conformists and the boys were both conformists and nonconformists. This difference between the boys and girls were statistically significant. ($X^2 = 7.351$; $p < .01$).

STARKWEATHER SOCIAL CONFORMITY TEST

FOR PRESCHOOL CHILDREN

Name Child F-31 Sex F Number 31

Birthdate 4-17-59 Date 1-24-64 Age 4:9

Color Preferences: 1st-A Red 4th-B Black

7th-C DK. Blue 10th-D Lt. Blue 13th-E Tan

Testing Place Oklahoma City

	Conformity to c	nc		c	nc
1.	A	(B)	11.	C	(D)
2.	(C)	D	12.	A	(B)
3.	(E)	A	13.	(E)	C
4.	C	(B)	14.	(D)	A
5.	D	(E)	15.	(B)	E
6.	A	(C)	16.	A	(C)
7.	(B)	D	17.	(D)	E
8.	E	(C)	18	(C)	B
9.	D	(A)	19.	E	(A)
10.	B	(E)	20.	(B)	D

Conformity (c): 9

Nonconformity (nc): 11

D-Score: -2

VITA

Allys Elaine Goldsmith

Candidate for the Degree of

Master of Science

Thesis: SEX-ROLE IDENTIFICATION IN PRESCHOOL CHILDREN: A STUDY OF THE RELATIONSHIP BETWEEN MASCULINITY-FEMININITY AND CONFORMITY TO PARENTS

Major Field: Family Relations and Child Development

Biographical:

Personal Data: Born in Willobee, Ohio, July 3, 1935, the daughter of Mr. and Mrs. Otis W. House. Married, 1955; divorced, 1969. Two children: Miriam Elaine Goldsmith, born March 29, 1964, and Elizabeth Ann Goldsmith, born February 14, 1966.

Education: Attended grade school in Willoughby, Ohio; graduated from Willoughby Union High School, Willoughby, Ohio, in June, 1953. Received a Bachelor of Science in Home Economics degree from Ohio University, Athens, Ohio, with a major in Home Economics Education in June, 1957. Completed requirements for the Master of Science degree in July, 1970.

Professional Experience: Sales and Service Supervisor, Duke University Dining Halls, Durham, North Carolina, 1957-1958; Vocational Home Economics Teacher, Clyde High School, Clyde, Ohio, 1958-1961; Home Economics Teacher, Avon High School, Avon, Ohio, 1961-1963; Graduate Teaching Assistant, Department of Family Relations and Child Development, Oklahoma State University, 1969-1970.

Professional Organizations: American Home Economics Association, Omicron Nu, Phi Upsilon Omicron, Southern Association on Children Under Six.