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DEVELOPMENTAL TRENDS IN CHILDREN'S IMITATION OF PARENTAL
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DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By
Marilyn Eshelman Moody, B.S., M.A.

* * * * *

The Ohio State University
1976

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Fred Damarin, Ph.D.

Approved By

Malcolm Helper, Ph.D.
Departments of Pediatrics and Psychology
For Mark, who never lost sight of the final goal.
This research would not have been possible without the cooperation, guidance, and assistance of many people.

First and foremost are the families who so graciously volunteered their time. Not only were they willing participants, but they kept my enthusiasm fresh by their sincere interest in the results.

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Chapter I — Introduction

There is a great gap in psychological research concerning the influence of parental modeling on how a child comes to select sex-appropriate behaviors as right for himself/herself. Most of the research on imitation to date has involved strangers as models for sex-appropriate or -inappropriate behaviors, even though all of the major theories claim important developmental trends in sex-role acquisition which involve imitation of parental behavior. This study is concerned with such developmental trends. Several theories, including the psychoanalytic, social learning, and cognitive-developmental approaches, will be examined in order to clarify the process of children's sex-role development.

Probably the oldest approach to the analysis of general sex differences is the physiological one. Because males and females are by nature endowed with different physical and chemical structures, there may be a direct relationship between sex and behavioral characteristics. For example, before Freud's revolutionary discussions of hysteria in the late nineteenth century, it was widely believed that neurosis was a purely feminine affliction. Freud himself believed that the child's discovery of the anatomical differences between the sexes was the immediate precursor to the psychological process of appropriate sex-role adoption. (Freud's theory will be discussed in detail later.) More recently, there have been those
theories which base a distinction between active, aggressive (masculine) behaviors and passive, nurturant (feminine) behaviors on hormonal differences. Most of these conclusions have been based on research with primates (and lower mammals) other than humans; if the behavioral sex differences appear the same across species, the underlying physiological process is assumed to be analogous. Harlow (1962) has charted behavioral sex differences in the play of young male and female rhesus monkeys: males tended toward rougher play, accompanied by more threatening approaches, than did female monkeys. Young documented behavioral changes in two young female monkeys whose mothers had been treated with androgen (a male hormone) during the final stages of pregnancy: these infant female monkeys engaged in more masculine-type play. Likewise, male rats which had been castrated before ten days of age and later were injected with progesterone (a female hormone) displayed feminine sexual-behavioral responses (Young, Goy, and Phoenix, 1964).

These researchers, however, do acknowledge the role of experience in the acquisition of masculine and feminine behavioral characteristics in the lower mammals. They note, for example, that social isolation inhibits many normal behaviors. It is also possible that the stress of the androgen treatments in the above-mentioned mother rhesus monkeys (as a result maintenance of pregnancy became difficult) caused them to treat the infants differently. The later research of Jensen et al. (1968) verified that mother monkeys do tend to push their male infants away earlier than their female infants. Even at this very early age,
therefore, it is difficult to distinguish between physiological and experiential causes for behavior.

Money has presented what is perhaps the most complete integration of the relative influences of hormones and morphology on the one hand and societal expectations on the other (Money and Ehrhardt, 1972). He cautions that physiological functions per se are more directly influenced by hormones and structures and that specific human behaviors are less affected. There is, however, an important interaction between "nature and nurture", beginning prenatally: sex chromosomes affect development of gonads, which produce hormones that direct patterns of organization in the brain, while later genital morphology shapes parents' (as well as child's) assignment of gender. In addition, hormonal changes at puberty confirm the experiences of early childhood. Money stresses that these early childhood years are critical for establishing a child's gender identity.

An alternative approach to the examination of inherent sex differences has been through anthropological studies of different cultures. There is a tendency to relate similar human behaviors across diverse cultures to physiological sex differences. The same activities classified as masculine or feminine in different societies, despite differing cultural practices, are taken as evidence for biological tendencies. For example, D'Andrade (1966) discusses the structural differences between the male body and the female body that account for greater physical strength in men: most societies relegate heavy physical labor to the males. Likewise, Maccoby (1974)
suggests that there may be a hormonal basis for such cross-cultural sex differences as greater aggressiveness in males and greater nurturance in females.

On the other hand, many specific behaviors do seem to be influenced by societal pressures, which are incorporated into each individual's value system as part of the socialization process. Mead (1949) has documented many cross-cultural differences in behaviors commonly assumed to be innately masculine or feminine: assertiveness, passivity, aggression, nurturance. Although it is possible that these behavioral differences are a result of racial differences, it becomes obvious that biological tendencies are vulnerable to cultural expectations, and can be channeled in a particular direction as a result of learning.

A recent cross-cultural study (Whiting and Edwards, 1974) has attempted to break down general categories of behavior into operationally defined units that can be observed for specific amounts of time in a uniform fashion. Some examples were offering help, seeking attention and approval, and engaging in rough-and-tumble play. From observations of children ages 3 to 11 in six different cultures, these authors concluded that many stereotyped cross-cultural sex differences are due to task assignments and socialization pressure; once again one can note a complex interaction between biological and experiential sources for sex-typed behavior.

This study is particularly concerned with the role played by imitative learning in the acquisition of sex-typed behaviors.
especially important in this socialization process is the influence of parents, since they meet so many of the child's needs and are in closer contact with the child than any other persons, especially during early childhood. The result of this parent modeling effect will be examined in this study for its relationship to the acquisition of traditional masculine and feminine roles. The major theories relevant to parental influence in sex-role development include psychoanalytic, social learning, and cognitive-developmental.

**Psychoanalytic Theory**

According to the traditional psychoanalytic viewpoint (Freud, 1938; 1924; 1927), the acquisition of sex-appropriate behaviors depends on the resolution of the Oedipal/Elektra conflict. The identification with the same-sex parent that results in the incorporation of an entire value system, a superego, of necessity includes appropriate masculine or feminine behaviors, as these are an important part of personal identity. The emphasis in psychoanalytic theory is on identification with and imitation of the same-sex parent as a consequence of anatomical differences and fear of bodily destruction. For both the boy-child and the girl-child, the foundation for this is the discovery of a basic anatomical difference between males and females: the boy has a penis, whereas the girl does not. According to Freud (1924, p. 126), the major difference between the "infantile genital organization" and the mature sexuality of the adult is that the main characteristic of the infantile form is that for both sexes in childhood only one kind of genital
organ comes into account — the male. The primacy reached is not therefore a primacy of the genital, but of the phallus.

The young boy assumes that all persons have a penis, as he does. His interest and curiosity about the penis in other individuals is natural, since this is a part of his own body that provides him with a great deal of pleasurable sensation. When, out of his curiosity about the penis in other individuals, he discovers that a sister, or a nursery-school classmate, does not possess such an important body part, his initial reaction is to deny that it is absent. Eventually, he decides that, for some reason, the young girl's penis has been taken away. Girls who have been bad have been punished by the loss of their penises. (Interestingly, females such as mother who are highly regarded by the young boy are considered in possession of a penis long after the initial discovery that some girls do not have one.) Therefore, if the boy is bad, he runs the same risk.

At about the same time, the young boy begins to feel a rivalry with his father for the attention and caresses of his (the boy's) original love-object, the mother. The boy's "fear of castration", evolved from his discovery that some persons (girls) have been deprived of their penises, is magnified by the notion that father will try to find some way to punish him for his selfish desire to possess mother. What else but deprive him of his own penis, that all-important center of pleasure? Father must be pacified (in the young boy's mind), and this goal is achieved by abandoning the desire for the mother and seeking father's approval by imitating him. "Being like father" gives
the young boy the opportunity to realize all of his goals simultaneously.

Thus the young boy finds it prudent to imitate and identify with father, gradually incorporating not only his overt behavior, but also his value system and conscience.

For young girls the process is basically analogous but specifically a bit different. The young girl must transfer her desire from her original love-object, her mother, to her father. According to Freud (1927), the young girl discovers that her genital area can be a source of great pleasure. However, she is fated to discover that her brother, or some of her nursery-school classmates, have organs that are very large relative to her own. The consequence of this discovery is penis-envy, the desire to possess a larger, more impressive genital organ. Whereas the boy may deny the difference, or fear it, or show contempt for the girl's lack, the young girl simply seeks to gain a penis for herself. As a consequence, the young girl's tie to her mother, who brought her into the world so obviously incomplete, is loosened. Her desire for a penis translates itself into a desire to bear a child by her father; at this point, the girl becomes a rival to her mother. Identifying with and imitating the behavior of her mother aids her in her goal of "seducing" the father. Eventually, of

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Freud explains a female's possible "masculinity complex" as a result of denying that she does not possess this body part, thereby behaving later in life as though she were a man.
course, this desire is repressed, to be reactivated and redirected later at puberty.

Psychoanalytic theory, then, describes the acquisition of sex-role behaviors in terms of anatomical differences in the following sequence for both boys and girls: attachment to the mother (as the original love-object), followed by imitation of the same-sex parent (as a result of the Oedipal/Elektra conflict), leading to incorporation and understanding of appropriate sex-role behaviors at the individual, personal level. At approximately three years of age, children of both sexes would be loosening the original tie to mother, though they would still prefer to be involved in activities with her. By age five, the children would be imitating the behavior of the same-sex parent. At age nine years, the children would make personal decisions about what kinds of behaviors are appropriate for them as a boy or as a girl.

**Social Learning Theory**

For nearly a century the theoretical concepts of psychoanalysis have been based primarily on clinical work with individual children and adults. The case histories of these persons have provided psychology with a description of the development of personality, including the acquisition of appropriate sex-role behaviors. In contrast, in the mid-1950's, interest in the application of learning principles to normal children's behavior opened the way for experimental laboratory research on child development (White, 1970).
This line of research has led to a different explanation of the acquisition of sex-appropriate behaviors, exemplified at present by the work of Albert Bandura and Walter Mischel; this approach has been called social learning theory.

In terms of general personality development, Bandura (1971) has emphasized the importance of observational learning (also referred to as modeling or imitation) in the acquisition of behavior patterns. In addition to the traditional learning concepts of reinforcement, discrimination, and generalization, Bandura describes and documents a process by which an individual can learn a novel behavior (or the situational consequences of a behavior already in his/her repertoire) socially, simply by observing another person perform the behavior. The model serves as a source of information which the subject can apply to his/her own behavior.

Bandura (1971) describes several sub-processes which are involved in observational learning; any or all of these may be affected by the developmental level of the child. These sub-processes include:

1) attentional factors, which include reinforcers offered, motivation of the observer, and valued characteristics of the model,

2) retention, which involves some kind of symbolic representation of the behavior performed by the model,

3) reproduction of the behavior, which may involve special kinds of skills, and
4) reinforcement, which determines whether or not the newly learned behavior will be performed.

Obviously ability to remember behavior to be imitated later is an important prerequisite for observational learning. Developmentally, this ability does not appear until after eighteen months of age (Piaget, 1962); therefore, one would not expect to find long-term observational learning effects in very young infants. Secondly, whether the child attends to a model depends in part on the model's own "personality". Effects have been found for such model characteristics as warmth (Bandura and Huston, 1961), sex (Bandura, Ross, and Ross, 1963a), dominance (Bandura, Ross, and Ross, 1963b), and effectiveness (Bandura, 1971).

These general social learning principles have been specifically applied to the acquisition of sex-role behaviors (Mischel, 1966; 1970). Young girls are rewarded for performing behaviors consistent with a feminine sex-role; they are also rewarded for imitating the behavior of other females, including mother. Young boys are discouraged from performing these behaviors and are instead rewarded for acting like little men, and for imitating the behavior of other males, especially father. That is not to say that young girls do not learn masculine behaviors, or that young boys do not learn feminine ones; they probably do (cf. Bandura, 1971). Rather, the consequences of the behavior that has been learned are determined by the sex of the child, and boys and girls are shaped differentially into masculine
and feminine molds. Eventually, performing the rewarded behaviors leads to an internalization of attitudes and values.

Therefore, the process of acquiring sex-appropriate behaviors can be described in social learning terms as follows: through observation, all kinds of behaviors are learned. When reinforcement is anticipated, behaviors will be reproduced. Depending on the sex of the child, these behaviors will be directly rewarded or punished; this in turn affects the frequency with which the behaviors will be performed again. The child is therefore led to an understanding of which behaviors are appropriate for him/her as a boy/girl.

Developmentally, then, social learning theory offers the following predictions for imitation of parental behavior: at age three years, the child will be randomly (in terms of sex of parent-model) imitating the behavior of both parents. By age five years, the child will have learned that he/she is more successful in gaining rewards if he/she imitates the behavior of the same-sex parent. Later, at age nine years, the child will have selected behaviors that he/she sees as appropriate for his/her own sex, regardless of what behavior the same-sex parent chooses to perform.

Cognitive-Developmental Theory

Although social learning theory has impressive support from experimental studies, there are still some gaps in its description of behavior that are not easy to fill in with learning terms. For example, how does the young child come to the conclusion that he/she
is of one sex or the other? Why do young children appear to have a very rigid, stereotyped view of what constitutes "masculine" and "feminine" behavior when his real-life models show a wide variety of complex behaviors? How does the child acquire the concepts necessary to class males/females together as one sex across wide age differences? As yet, the social learning theories have not really emphasized the development of cognitive processes as an integral part of sex-role development. (For example, Mischel, 1966, describes the function of concept formation as an aid in discriminative ability involved in the learning process.) On the other hand, cognitive-developmental theory of sex-role development, as presented by Lawrence Kohlberg (1966), does approach many of these questions directly.

Cognitive-developmental theory asserts that developmental changes in the child's intellectual ability have an important influence on the acquisition of appropriate sex-role behaviors. From the psychoanalytic viewpoint, Kohlberg has borrowed the notion that the discovery of the anatomical differences between the sexes does affect the young child's conceptualization of masculinity and/or femininity. From the social learning viewpoint, Kohlberg stresses that a child will imitate models that he/she perceives as powerful or like self. However, Kohlberg goes beyond these other theoretical concepts in emphasizing that the child's level of development limits and defines his/her understanding of what constitutes a "sex-role". Here Kohlberg borrows from Piaget's description
of cognitive changes as primary sources of development in reality orientation (Piaget, 1962; 1967). According to Kohlberg (1966), sex-role development is but one specific example of the Piagetian notion of developmental changes in the conceptualization of physical objects in general. Therefore, it is neither totally dependent on innate structures nor a direct reflection of learning; rather, environmental experiences interact to stimulate a restructuring of the child's attitudes and conceptualizations.

Gesell's norms (Gesell, 1940) have provided the information that children of two-and-one half years of age do not generally know whether they are male or female. By three years of age, they can classify themselves as such correctly. Kohlberg stresses that this is but the first step in acquiring the concepts male and female. At three years of age, children do not realize that sex is unchangeable, just as they do not realize that a cat cannot become a dog by wearing a dog mask, or that a child cannot be a "grown-up" simply by increasing his/her height. By age four-five years, the child understands that one's sex is fixed; he/she can assign an individual the proper sex according to hair and clothing cues, but at this age more than half still err on sex assignment according to external genitalia (Katcher, 1955). By age six-seven years, the

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Kohlberg cites the Money and Hampson studies of hermaphroditic children whose sex was reassigned to match external genitalia sometime after birth. If this reassignment took place before three years of age, there appeared to be no adverse psychological consequences; after three years of age, there was a much greater risk. (cf. Hampson, 1965)
latter errors have also been corrected. These observations are in conflict with the psychoanalytic notion that the child of three or four years of age has made the traumatic discovery of (and therefore bases classification of sex on) the presence or absence of a penis. According to Kohlberg (1966), the effect of this discovery appears much later and is not the only source of male-female conceptualization.

When the child begins to form concepts, then, the most obviously similar objects are classed together in small groupings, which are later expanded as abstracting ability increases. Kohlberg claims that the young child first classifies himself/herself as a male/female, then seeks out those behaviors and objects which are intrinsically rewarding because they are like self (egocentric evaluation). Peers and siblings of the same sex will be imitated because they are like self (included in the same classification) on the bases of both age and sex. Imitation of same-sex adults appears later because this is a more difficult concept to master: wide age variations appear to overshadow the similarity of sex at the early ages. Therefore there is a time lag between the concept of "like-me activities" and "like-me kids" to "like-me grown-ups" who are interesting and rewarding because they are also similar in one way to self.

As a result, cognitive-developmental theory predicts a developmental trend in parental imitation that is the reverse of the psychoanalytic and of the social learning theory predictions; this is due to the fact that cognitive-developmental theory views parental imitation as interacting with rather than as the cause of sex-appropriate
behavior preferences. At age three years, the child can tell what
sex he/she is, but as this knowledge is but the primitive beginning
of a concept, there will be no preference for the behavior of one
parent. By age five, the child's concept of his/her own sex has
stabilized, and he/she will recognize and value those activities
which are perceived as part of the stereotyped masculine or feminine
concept. By age nine years (and probably somewhat earlier), the
child will choose to imitate the behavior of the same-sex parent,
especially in those situations where it is not clear whether the
activities to be chosen are "masculine" or "feminine"; this is
because the same-sex parent can be a valuable source of information
as to whether an activity is appropriate for the child himself/herself.

As Maccooby (1974) points out, all three of these orientations
may be valuable in predicting and understanding developmental
changes in sex-role behavior. The psychoanalytic emphasis on
emotional attachments offers the best explanation for affective
investment; the emphasis on the anatomical differences between the
sexes is obviously important at the level of completing the concepts
of male and female. Social learning variables are probably
especially influential in the early stages of development; external
forces may shape behavior that is not yet controlled by internal
mechanisms. The development of concept formation surely enables
the child to general rules of behavior that may be applied in
novel situations in the absence of direct or vicarious reinforcement from external sources.

However, all of the previously discussed theories assume masculine and feminine sex-role development to be analogous processes, with girls acquiring their feminine identity in the same basic way that boys acquire a masculine one. This may be a false assumption due to such factors as differential accessibility of mother and father in early childhood and greater valuation of the masculine role in society. David Lynn (1959; 1974; 1975) has described these much-noted but little-explained sex differences within a social learning framework.

Lynn notes that much of the descriptive research on children's sex-role preference indicates that school-age boys tend to be overwhelmingly masculine while school-age girls tend to be less restricted to a particular sex role. Lynn attributes this trend to several factors, one of which is the availability of the two parents as models. Both boys and girls have closer contact with mother in early childhood, as she is usually the primary caretaker; father is absent from the home for many of the small child's waking hours. Therefore, girls have an immediate model for "proper" feminine behavior; because of individual differences between mothers, however, each mother-model exhibits a different range of "appropriate" behaviors. Boys, on the other hand, must initially shift identification from mother to father. Then, because father is not continually and immediately available as a model (relative to mother's modeling availability),
boys learn a more abstract, stereotyped masculine sex role from expectations of mother and direct reinforcement for particular behaviors. Thus Lynn reasons that females have access to an easily learned, more flexible sex role; boys' sex-role preferences are more difficult to learn, being more stereotyped and rule-oriented.

As a second differentiating factor influencing the process of sex-role development is the direct reinforcement of masculine or feminine behaviors. The masculine sex role may be more rigidly defined in the concrete thinking of preschool children, but it is also more highly valued by society in general. That boys be masculine appears to be much more important to parents than that girls be feminine, beginning at an early age and especially to fathers (Goodenough, 1957; Lansky, 1967). Lynn (1975) believes that boys are punished for opposite-sex behaviors at an early age, when they are too young to understand, thereby leaving them with sometimes intense anxiety and hostility toward the feminine role. Girls, on the other hand, are not subject to such pressure and continue to be interested in both masculine and feminine behaviors.

Finally, because the more active, more prestigious roles in society are the masculine ones, girls are pulled away from a rigid sex-typing because of an intrinsic interest in the masculine activities themselves. At the same time, boys are drawn even further into a masculine stereotype.

The following developmental hypotheses emerge from Lynn's theory: both males and females are initially identified with mother. Girls
have a head-start in sex-role development because of the availability of the same-sex model; however, although mother imitation is expected at an early age, feminine sex-role preferences per se are not particularly rigid and become even more flexible with age due to a lack of negative reinforcement for exercising curiosity. On the other hand, boys are slower to learn a masculine sex role, which must be based on abstract principles, but incorporate a more traditionally stereotyped sex role which is reinforced both directly (by parents) and indirectly (by society) as boys increase in age.

Studies which actually deal with parental influence in the development of sex-role preferences in children are relatively few and far between. There are those, of course, that present results based on parent questionnaires and on projective testing with children, but actual observations of parent-child interactions are scarce. However, it is difficult to draw conclusions about imitation of parents if it is only indirectly examined.

Actual parent availability has been discussed theoretically by Lynn. Biller (1971) reviewed the literature on father-absence vs. father-presence and concluded that the availability of a father does enhance masculine development in sons but also prevents masculinity from being expressed in an overly rigid fashion. Lynn (1975) suggests that it is not a father's masculinity per se that influences his child's sex-role development, but rather his dominance, nurturance, and participation in child care (i.e., amount of contact with the child). In addition, Sears (Sears, Rau, and Alpert, 1965; Sears 1965)
concluded that non-permissiveness and anxiety about sexual functioning were related to feminization of both boys and girls.

Studies involving children's projective imitation of mother- and father-figures generally support the concept that boys identify with father and girls with mother on both non-sex-typed choices (Duhamel and Biller, 1969) and sex-typed choices (Green, 1974). However, Sears and his colleagues (Sears, Rau, and Alpert, 1965) caution about overgeneralization: in their studies, identification with an adult sex role in doll play was not necessarily correlated with actual sex-typed play behaviors in the same children.

How, then, do children react in the presence of their mothers and fathers? Hetherington is one of the few researchers who has actually tested parents and children together, albeit on imitation of non-sex-typed activities (Hetherington, 1965; Hetherington and Frankie, 1967). In her first study, the parental imitation task involved separate testing sessions with the mother and father; in each session the parent was asked to indicate a preference for "Which picture is prettiest?" in front of the child, after which the child would also choose. The second study involved coaching the parents in play activities; after the child observed their play behaviors, his/her own play responses were recorded. The results indicated that parental dominance influenced imitations; maternal dominance tended to interfere with sex-role development in sons (measured by the IT scale); maternal warmth facilitated identification in daughters.
It is not possible, however, to generalize from these studies to preferences for behaviors that are clearly defined as masculine or feminine, as sex-appropriate or sex-inappropriate for each individual. The present study is aimed at describing the actual developmental trends that do exist in relation to the parents' choices of sex-appropriate and sex-inappropriate activities, as well as imitation on choices of non-sex-typed activities.
Hypotheses

1. Boys and girls will show a significant difference in preference for specific traditionally-rated sex-typed activities and toys.

2. Children will tend to imitate the same-sex parent, but this trend will decrease with age, especially for activities clearly defined as masculine or feminine.

3. a. Boys will demonstrate a developmental increase in preference for masculine activities and toys.

   b. Girls will demonstrate a developmental decrease in preference for feminine activities and toys.
Chapter II -- Method

Design

In this study the following variables were examined in a 3 x 2 x 3 design:

1) age of child (3 years, 5 years, 9 years),
2) sex of child (boys, girls), and
3) parents' choices of sex-appropriate, sex-inappropriate, and non-sex-typed activities.

The dependent measure involved the child's choices (imitation) on the same task. Children also chose between two types of sex-typed "prize" toys.

Subjects

Subjects were forty three-year-olds, forty five-year-olds, and forty nine-year-olds (twenty boys and twenty girls in each age group) and their respective mothers and fathers. Ages averaged as follows:

3-year boys -- $\bar{x} = 3$ yr., 7 mo. 3-year girls -- $\bar{x} = 3$ yr., 5 mo.
5-year boys -- $\bar{x} = 5$ yr., 4 mo. 5-year girls -- $\bar{x} = 5$ yr., 2 mo.
9-year boys -- $\bar{x} = 9$ yr., 4 mo. 9-year girls -- $\bar{x} = 9$ yr., 4 mo.

Subject's families were contacted through the preschools and the elementary schools in the Columbus, Ohio, area. Letters sent to the parents from the cooperating schools may be found in Appendix A.
Materials

Sex-appropriate preferences of the child and/or the child's imitation of the parents were measured by a series of forced-choice pictures depicting a variety of activities. Due to the fact that many masculinity-femininity scales are about twenty years old (Gough, 1952; Fauls and Smith, 1956; Brown, 1956; Dahlstrom and Welsh, 1960), behaviors from these scales, plus a more recent set (Green, 1974) were collapsed into a questionnaire involving "sex-appropriateness". (This questionnaire may be found in its entirety in Appendix B.) The questionnaire was administered to Introductory Psychology students at the Ohio State University during Summer Quarter, 1975. A total of 246 (139 males, 107 females) cooperated in the masculinity/femininity/non-sex-typed rating.

Ten behaviors scaled as "highly masculine" were matched according to extremity of rating with ten "highly feminine" behaviors. Ten "non-sex-typed" activities were also selected from the results of the questionnaire. Pairs of activities were matched according to type of activity (e.g. recreational activities with recreational activities, occupations with occupations). The thirty activities, including masculinity-femininity ratings, may be found in Table 1.

---

3 Because it is likely that these college students were somewhat less conventional in their sex-role definitions than the parents in the experimental sample, directions on the questionnaire specified that ratings were to be made "according to present day standards in our society". If the parents were more conventional, extreme ratings of "masculinity" or femininity would increase, thereby making them more valid.
Table 1: Activities comprising the forced-choice pictures test (Picture Activity Test)

Rating Scale:

1 = extremely masculine, 2 = somewhat masculine, 3 = non-sex-typed, 4 = somewhat feminine, 5 = extremely feminine

**Masculine-Feminine Pairs**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifting weights (1.35)</td>
<td></td>
</tr>
<tr>
<td>Airplane pilot</td>
<td></td>
</tr>
<tr>
<td>Hunting (1.56)</td>
<td></td>
</tr>
<tr>
<td>Carpenter (1.53)</td>
<td></td>
</tr>
<tr>
<td>Baseball (1.68)</td>
<td></td>
</tr>
<tr>
<td>Police (1.76)</td>
<td></td>
</tr>
<tr>
<td>House Painter (1.81)</td>
<td></td>
</tr>
<tr>
<td>Sawing Wood (1.82)</td>
<td></td>
</tr>
<tr>
<td>Basketball (1.86)</td>
<td></td>
</tr>
<tr>
<td>Farmer (1.63)</td>
<td></td>
</tr>
<tr>
<td>Using make-up (4.60)</td>
<td></td>
</tr>
<tr>
<td>Knitting (4.58)</td>
<td></td>
</tr>
<tr>
<td>Sewing (4.45)</td>
<td></td>
</tr>
<tr>
<td>Secretary (4.41)</td>
<td></td>
</tr>
<tr>
<td>Cheerleader (4.29)</td>
<td></td>
</tr>
<tr>
<td>Fashion Model (4.27)</td>
<td></td>
</tr>
<tr>
<td>Nurse (4.20)</td>
<td></td>
</tr>
<tr>
<td>Ironing (4.19)</td>
<td></td>
</tr>
<tr>
<td>Weaving (4.13)</td>
<td></td>
</tr>
<tr>
<td>Housecleaning (4.12)</td>
<td></td>
</tr>
</tbody>
</table>

**Non-sex-typed Pairs**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swimming (2.99)</td>
<td></td>
</tr>
<tr>
<td>Reading (3.02)</td>
<td></td>
</tr>
<tr>
<td>Horseback Riding (3.05)</td>
<td></td>
</tr>
<tr>
<td>Painting Picture (3.04)</td>
<td></td>
</tr>
<tr>
<td>Watching TV (3.05)</td>
<td></td>
</tr>
<tr>
<td>Bikeriding (3.00)</td>
<td></td>
</tr>
<tr>
<td>Sleeping (2.98)</td>
<td></td>
</tr>
<tr>
<td>Going to Movies (3.02)</td>
<td></td>
</tr>
<tr>
<td>Singer (3.03)</td>
<td></td>
</tr>
<tr>
<td>Listening to Records (3.00)</td>
<td></td>
</tr>
</tbody>
</table>

**Sample Items**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooking (3.74)</td>
<td></td>
</tr>
<tr>
<td>Ice Skating (3.16)</td>
<td></td>
</tr>
<tr>
<td>Dancing (3.35)</td>
<td></td>
</tr>
<tr>
<td>Mowing Grass (2.25)</td>
<td></td>
</tr>
<tr>
<td>Tennis (2.94)</td>
<td></td>
</tr>
<tr>
<td>Playing Guitar (2.82)</td>
<td></td>
</tr>
</tbody>
</table>
Ink drawings depicting each of the activities in Table 1 (plus an assortment of sample items) were provided by Ms. Susan Sturgill of Columbus, Ohio. Each drawing contained both male and female figures in order to minimize cues of "masculine" or "feminine". These 8½ x 11 drawings were mounted side by side on black construction paper, the order of each pair having been determined by the flip of a coin. The drawings of the masculine-feminine pairs (2 sets of 5 pairs) and the drawings of the non-sex-typed pairs (1 set of 5 pairs) may be found in Appendix C.

Toy "prizes" were also selected according to masculinity-femininity. According to Sutton-Smith, Rosenberg, and Morgan (1963), favorite feminine and masculine toy choices are dolls and cars respectively. These results were influential in the selection of prizes for the present study. Small plastic baby dolls with colored diapers and colored "Matchbox" cars served as prizes.

Procedure

Families received letters asking for their participation through cooperating preschools and elementary schools in Columbus, Ohio. Interested parents returned these letters, thereby volunteering to participate in the study. Home visits were arranged by the experimenter by telephone.

First the parents were seen alone, so that the experimenter could instruct them in the purpose of the study and in their role in
it. (The children played games with a research assistant.) On the forced-choice Picture Activity Test, the choices of the parents were arbitrarily determined prior to testing: the parents were asked to state these set-up choices in the presence of the child. On half of the masculine-feminine picture-activity pairs (5 pairs, father chose masculine and mother chose feminine activities ("sex-appropriate" condition); on the other half (5 pairs), father chose feminine and mother chose masculine activities ("sex-inappropriate" condition). Parents also chose non-sex-typed activities. Fathers and mothers were cued by the experimenter for each choice.

When the child S was brought in, the experimenter instructed the family that "This is a study to determine how people of different ages make decisions about what they would like to do". A dummy pair of pictures was presented as an example: e.g. a picture of cooking vs. a picture of mowing the grass. The parents were asked, one at a time, "Which would you rather do, cook or mow the grass?" Each parent made a set-up choice for himself or herself, after which the child was asked to choose. If the child understood the task, the entire test of choices was administered.

Presentation of the cards was randomized for each S. The parent who selected first was counterbalanced across S's (i.e. for half the S's in each cell, father chose first; in the other half, mother chose first), as was the activity set chosen by the parents (In other words, the same activity in each pair was always chosen first, but the parent choosing first was alternated.)
Chapter III -- Results

Scoring of Children's Responses

On the Picture Activity Test each child was exposed to
1) five choices in which parents had selected sex-appropriate activities for themselves,
2) five choices in which parents had selected sex-inappropriate activities for themselves, and
3) five choices which had involved selection of non-sex-typed activities by the parents.

Children's responses were initially scored according to their imitation of parents. These scores were subjected to an analysis of variance which revealed minimal imitation effects. It appeared that the children had responded to the Picture Activity Test choices without considering the (set-up) choices of their parents. (This was evident in the behavior of many children as well as statistically.)

As a result, children's responses were rescored according to the activities selected, as follows:

1) On the sex-typed activities (2 sets of 5 masculine-feminine pairs comprising the sex-appropriate and sex-inappropriate choices of parents), masculine choices were scored 1, feminine choices 0. Scores for each of these two conditions ranged from 0-5, depending on the number of masculine choices made by the child.

-27-
2) Since the non-sex-typed activities could not be scored "masculine" or "feminine", an arbitrary system was established. Each non-sex-typed activity had been randomly assigned to a set in the following way, such that mother chose one set and father chose the other for any given S:

Set A (0 points each)          Set B (1 point each)
sleeping ........................ reading
going to movies ................ horseback riding
listening to records .......... watching TV
singer .......................... painting picture
bikeriding ........................ swimming

If the child chose any activity from Set A, he/she received 0 points for that pair; choosing an activity from Set B resulted in 1 point for that pair. (For example, if a child chose reading, going to moves, watching TV, painting picture, and bikeriding, his/her score would be 2 activities from Set A (0 + 0) and 3 activities from Set B (1 + 1 + 1), or a total of 3 points on the non-sex-typed items.)

Each child was also scored "car" or "doll", depending on the choice of prize toy.

Analysis Procedures

In order to test the hypotheses presented in Chapter I, two separate analyses of variance were conducted on the raw scores from the forced-choice Picture Activity Test. The first analysis included the following factors:

1) 3 levels of S age (3 years; 5 years; 9 years),
2) 2 levels of S sex (boys; girls),

3) 2 levels of cued choices of parents on the Picture Activity Test (sex-appropriate condition; sex-inappropriate condition), and

4) 2 levels of order (father choosing first; mother choosing first).

The second analysis included these factors:

1) 3 levels of S age (3 years; 5 years; 9 years),

2) 2 levels of S sex (boys; girls), and

3) 2 levels of order (father choosing first; mother choosing first).

(The only parent-choice condition involved in this second analysis was the non-sex-typed condition.)

Newman-Keuls post hoc comparisons were used to clarify the significant effects revealed through analysis of variance.

Children's choices of toy prizes were analyzed by means of a Pearson Chi-square statistic.

Summary tables of means and standard deviations of children's responses to the Picture Activity Test may be found in Tables 2 and 3.

**Analysis of Sex-Typed Choices**

The analysis for the sex-appropriate/sex-inappropriate parental choices may be found in Table 4. (See also Figures 1-2.) The main effect of S age is significant (p < .01), as is S sex (p < .001).

This means that boys chose the masculine items significantly more
Table 2: Means and standard deviations of children's masculine choices following parents' choices of sex-appropriate and sex-inappropriate activities (Picture Activity Test)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Sex-appropriate</th>
<th></th>
<th>Sex-inappropriate</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>SD</td>
<td>X</td>
<td>SD</td>
</tr>
<tr>
<td>3-year-old boys</td>
<td>3.60</td>
<td>1.09</td>
<td>3.55</td>
<td>1.36</td>
</tr>
<tr>
<td>5-year-old boys</td>
<td>4.65</td>
<td>.59</td>
<td>4.35</td>
<td>.67</td>
</tr>
<tr>
<td>9-year-old boys</td>
<td>4.45</td>
<td>.82</td>
<td>4.40</td>
<td>.82</td>
</tr>
<tr>
<td>3-year-old girls</td>
<td>2.00</td>
<td>1.30</td>
<td>2.50</td>
<td>1.32</td>
</tr>
<tr>
<td>5-year-old girls</td>
<td>2.60</td>
<td>1.35</td>
<td>2.20</td>
<td>1.15</td>
</tr>
<tr>
<td>9-year-old girls</td>
<td>2.15</td>
<td>1.57</td>
<td>2.75</td>
<td>1.16</td>
</tr>
</tbody>
</table>

Child's score ranges from 0-5, depending on the number of masculine activities chosen for each condition.

Table 3: Means and standard deviations of children's non-sex-typed choices following parents' choices of non-sex-typed activities (Picture Activity Test)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>X, Order 1 (Father Imitation)</th>
<th>X, Order 2 (Mother Imitation)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>SD</td>
</tr>
<tr>
<td>3-year-old boys</td>
<td>2.45</td>
<td>1.05</td>
</tr>
<tr>
<td>5-year-old boys</td>
<td>3.65</td>
<td>1.03</td>
</tr>
<tr>
<td>9-year-old boys</td>
<td>3.95</td>
<td>1.00</td>
</tr>
<tr>
<td>3-year-old girls</td>
<td>2.45</td>
<td>.76</td>
</tr>
<tr>
<td>5-year-old girls</td>
<td>3.40</td>
<td>1.23</td>
</tr>
<tr>
<td>9-year-old girls</td>
<td>3.70</td>
<td>1.13</td>
</tr>
</tbody>
</table>

Child's score of 0-5 is based on number of choices from each non-sex-typed set. Scores for Order 1 and Order 2 reflect child's imitation of father and mother respectively.
Table 4: Analysis of masculine choices by age of child, sex of child, order of parent choosing, and preceding parental choice (sex-appropriate and sex-inappropriate conditions on Picture Activity Test).

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Within Ss</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age of child</td>
<td>2</td>
<td>15.06</td>
<td>7.53</td>
<td>4.93</td>
<td>.01</td>
</tr>
<tr>
<td>Sex of child</td>
<td>1</td>
<td>194.40</td>
<td>194.40</td>
<td>127.48</td>
<td>.001</td>
</tr>
<tr>
<td>Order of parent choosing</td>
<td>1</td>
<td>1.67</td>
<td>1.67</td>
<td>1.09</td>
<td>NS</td>
</tr>
<tr>
<td>Age x Sex</td>
<td>2</td>
<td>6.93</td>
<td>3.46</td>
<td>2.27</td>
<td>.10</td>
</tr>
<tr>
<td>Age x Order</td>
<td>2</td>
<td>0.51</td>
<td>0.25</td>
<td>0.17</td>
<td>NS</td>
</tr>
<tr>
<td>Sex x Order</td>
<td>1</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>NS</td>
</tr>
<tr>
<td>Age x Sex x Order</td>
<td>2</td>
<td>3.68</td>
<td>1.84</td>
<td>1.20</td>
<td>NS</td>
</tr>
<tr>
<td>Error within</td>
<td>108</td>
<td>164.70</td>
<td>1.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Between Ss</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents' SA and SI choices</td>
<td>1</td>
<td>0.15</td>
<td>0.15</td>
<td>0.13</td>
<td>NS</td>
</tr>
<tr>
<td>Age x Choice</td>
<td>2</td>
<td>4.83</td>
<td>2.41</td>
<td>2.08</td>
<td>NS</td>
</tr>
<tr>
<td>Sex x Choice</td>
<td>1</td>
<td>2.02</td>
<td>2.02</td>
<td>1.74</td>
<td>NS</td>
</tr>
<tr>
<td>Order x Choice</td>
<td>1</td>
<td>0.42</td>
<td>0.42</td>
<td>0.36</td>
<td>NS</td>
</tr>
<tr>
<td>Age x Sex x Order</td>
<td>2</td>
<td>1.66</td>
<td>0.83</td>
<td>0.72</td>
<td>NS</td>
</tr>
<tr>
<td>Age x Order x Choice</td>
<td>2</td>
<td>0.31</td>
<td>0.15</td>
<td>0.13</td>
<td>NS</td>
</tr>
<tr>
<td>Sex x Order x Choice</td>
<td>1</td>
<td>0.02</td>
<td>0.02</td>
<td>0.01</td>
<td>NS</td>
</tr>
<tr>
<td>Age x Sex x Order x Choice</td>
<td>2</td>
<td>3.51</td>
<td>1.75</td>
<td>1.51</td>
<td>NS</td>
</tr>
<tr>
<td>Error between</td>
<td>108</td>
<td>125.10</td>
<td>1.16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 1: Main effect of age for children's masculine choices following parents' sex-appropriate and sex-inappropriate choices (Picture Activity Test)

Figure 2: Main effect of sex for children's masculine choices following parents' sex-appropriate and sex-inappropriate choices (Picture Activity Test)
than did girls; the tendency to choose masculine activities increased with age. There are no significant choice-type effects, nor are there any order effects, which suggests that, for these items, there is no imitation of parents.

Newman-Keuls post hoc comparisons were used for further clarification of significant main effects. These statistical comparisons may be found in Table 5. They reveal that there are no significant differences among the three different age groups of girls. (All of the girls' scores cluster around 2.5, or equally frequent selection of masculine and feminine activities.) The boys, on the other hand, are a bit more varied. Although at all three ages boys tend to prefer masculine activities over feminine ones, this trend increases from age 3 to age 5 and then levels off to age 9 (p < .05). (See Figure 3).

Table 5: Newman-Keuls post hoc comparisons for children's masculine choices following parents' sex-appropriate and sex-inappropriate choices (Picture Activity Test)

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Difference in Group Totals</th>
<th>Critical Value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-yr. boys to 5-yr. boys</td>
<td>18.50</td>
<td>q(3,108) = 18.56</td>
<td>.10</td>
</tr>
<tr>
<td>3-yr. boys to 9-yr. boys</td>
<td>17.00</td>
<td>q(2,108) = 15.46</td>
<td>.05</td>
</tr>
<tr>
<td>5-yr. boys to 9-yr. boys</td>
<td>.50</td>
<td>q(2,108) = 15.46</td>
<td>NS</td>
</tr>
<tr>
<td>3-yr. girls to 5-yr. girls</td>
<td>4.00</td>
<td>q(2,108) = 15.46</td>
<td>NS</td>
</tr>
<tr>
<td>3-yr. girls to 9-yr. girls</td>
<td>5.00</td>
<td>q(3,108) = 18.56</td>
<td>NS</td>
</tr>
<tr>
<td>5-yr. girls to 9-yr. girls</td>
<td>1.00</td>
<td>q(2,108) = 15.46</td>
<td>NS</td>
</tr>
<tr>
<td>3-yr. boys to 3-yr. girls</td>
<td>26.50</td>
<td>q(4,108) = 24.85</td>
<td>.01</td>
</tr>
<tr>
<td>5-yr. boys to 5-yr. girls</td>
<td>42.00</td>
<td>q(5,108) = 26.01</td>
<td>.01</td>
</tr>
<tr>
<td>9-yr. boys to 9-yr. girls</td>
<td>39.50</td>
<td>q(3,108) = 23.20</td>
<td>.01</td>
</tr>
</tbody>
</table>
Figure 3: Interaction of age and sex for children's masculine choices following parents' sex-appropriate and sex-inappropriate choices (Picture Activity Test)
Analysis of Non-Sex-Typed Choices

Children's choices of non-sex-typed picture activities were observed in order to determine whether imitation of parents would occur on activities not clearly defined as masculine or feminine.

The analysis for the non-sex-typed choices of parents may be found in Table 6. In this analysis the main effect for age is significant (p < .001). This indicates that there was a tendency for both boys and girls to consolidate their choices among this particular group of activities with increasing age, i.e. the three-year-olds were fairly random in their choices, whereas five-year-olds and nine-year-olds tended to choose the same activities across subjects. Newman-Keuls post hoc comparisons (Table 7) revealed no significant difference between five-year-olds and nine-year-olds, but a significant difference between three-year-olds and five-year-olds (also between three-year-olds and nine-year-olds). (See also Figure 4.)

There was also a significant main effect for order (p < .05, see Table 6). This effect reveals that when father was choosing the children's preferred set of non-sex-typed activities, children were more inclined to indicate these preferences than when mother chose them. This appears to be an additive father imitation effect, in that the already-preferred activities were even more highly valued when father chose them. This effect occurs across sex of S and age of S; it appears to be more significant for boys than for girls, but this sex x order interaction is a nonsignificant trend (p = .15). The only individual group for which this order effect is significant
Table 6: Analysis of children's non-sex-typed choices by age of child, sex of child, and order of parent choosing first (Picture Activity Test)

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Within Ss</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age of child</td>
<td>2</td>
<td>41.81</td>
<td>20.90</td>
<td>19.88</td>
<td>.001</td>
</tr>
<tr>
<td>Sex of child</td>
<td>1</td>
<td>0.83</td>
<td>0.83</td>
<td>0.79</td>
<td>NS</td>
</tr>
<tr>
<td>Order of parent choosing</td>
<td>1</td>
<td>5.63</td>
<td>5.63</td>
<td>5.63</td>
<td>.05</td>
</tr>
<tr>
<td>Age x Sex</td>
<td>2</td>
<td>0.42</td>
<td>0.21</td>
<td>0.20</td>
<td>NS</td>
</tr>
<tr>
<td>Age x Order</td>
<td>2</td>
<td>1.32</td>
<td>0.65</td>
<td>0.63</td>
<td>NS</td>
</tr>
<tr>
<td>Sex x Order</td>
<td>1</td>
<td>2.13</td>
<td>2.13</td>
<td>2.03</td>
<td>NS</td>
</tr>
<tr>
<td>Age x Sex x Order</td>
<td>2</td>
<td>1.72</td>
<td>0.86</td>
<td>0.82</td>
<td>NS</td>
</tr>
<tr>
<td>Error</td>
<td>108</td>
<td>113.60</td>
<td>1.05</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 7: Newman-Keuls post hoc comparisons for children's non-sex-typed choices following parents' non-sex-typed choices (Picture Activity Test)

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Difference in Group Totals</th>
<th>Critical Value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-yr.-olds to 5-yr.-olds</td>
<td>43.00</td>
<td>q(2,108) = 28.90</td>
<td>.01</td>
</tr>
<tr>
<td>3-yr.-olds to 9-yr.-olds</td>
<td>55.00</td>
<td>q(3,108) = 32.80</td>
<td>.01</td>
</tr>
<tr>
<td>5-yr.-olds to 9-yr.-olds</td>
<td>12.00</td>
<td>q(2,108) = 21.87</td>
<td>NS</td>
</tr>
</tbody>
</table>

Figure 4: Main effect of age for children's non-sex-typed choices following parents' non-sex-typed choices (Picture Activity Test)
is three-year-old boys ($p < .10$, Scheffé critical value 0.992 for a group difference of 1.10).

Toy Choices

$S$s' choices of prize toy was recorded at the time of testing and later summed over subjects within each age-sex group (see Table 8).

Table 8: Choices of prize toy by age and sex of child.

<table>
<thead>
<tr>
<th>Age and Sex</th>
<th># Cars</th>
<th># Dolls</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-year-old boys</td>
<td>17</td>
<td>3</td>
</tr>
<tr>
<td>5-year-old boys</td>
<td>18</td>
<td>2</td>
</tr>
<tr>
<td>9-year-old boys</td>
<td>19</td>
<td>1</td>
</tr>
<tr>
<td>3-year-old girls</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>5-year-old girls</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>9-year-old girls</td>
<td>9</td>
<td>11</td>
</tr>
</tbody>
</table>

The ratio of dolls: cars chosen within each group was subjected to Chi-square analyses, which may be found in Table 9. At all ages, choice of doll or car was significantly related to sex of $S$s, boys choosing more cars, girls choosing more dolls ($p < .001$). However, with increasing age girls chose significantly fewer dolls ($p < .05$), such that nine-year-old girls chose dolls and cars almost equally.
Table 9: Chi-square analyses for children's toy choices. Df = 1

<table>
<thead>
<tr>
<th>Comparison</th>
<th>$X^2$</th>
<th>Critical Value</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys to Girls overall</td>
<td>47.22</td>
<td>10.83</td>
<td>.001</td>
</tr>
<tr>
<td>9-yr. boys to 9-yr. girls</td>
<td>11.92</td>
<td>10.83</td>
<td>.001</td>
</tr>
<tr>
<td>3-yr. girls to 9-yr. girls</td>
<td>4.28</td>
<td>3.84</td>
<td>.05</td>
</tr>
<tr>
<td>5-yr. girls to 9-yr. girls</td>
<td>1.76</td>
<td>------</td>
<td>NS</td>
</tr>
</tbody>
</table>
Chapter IV -- Discussion

All of the hypotheses presented at the end of Chapter I have been at least partially supported by the results of this experiment. Let us examine the significance of each.

Hypothesis 1: Boys and girls will show a significant difference in preference for traditionally-rated sex-typed activities and toys.

This hypothesis was supported in that there was a highly significant main effect for sex on the masculine-feminine choices ($p \leq .001$). In addition, the difference between choices of boys and girls was significant at all three age levels ($p \leq .01$). However, only the boys chose sex-appropriate (masculine) activities. The girls' choices tended to be equally split between masculine and feminine activities.

Toy choices also support this hypothesis. At all ages, boys chose significantly more cars (masculine) than did girls ($p \leq .001$).

Hypothesis 2: Children will tend to imitate the same-sex parent, but this trend will decrease with age, especially for activities clearly defined as masculine or feminine.

There is only slight support for this hypothesis. The children involved in this study exhibited no imitation of parents on the sex-typed choices. Even at three years of age, the boys appeared
to have some knowledge of and preference for masculine activities; their preference was not affected by whether mother or father chose the activity, nor was it affected when father chose feminine activities. Likewise, girls tended to make their choices independently, without relying on either parent for guidance.

On the non-sex-typed choices, there was a developmental trend for children to choose the same specific activities across Ss (swimming, watching TV, horseback riding, painting pictures, and reading as opposed to biking, listening to records, going to movies, singing, and sleeping respectively) \( (p < .001) \). In addition, there was an overall effect of father imitation, such that when father chose these preferred activities, they were even more highly valued by the children \( (p < .05) \). Especially interesting is the fact that the only individual group for whom this effect is significant is three-year-old boys \( (p < .10) \). It appears that, especially for three-year-old boys, choices of the father were influential in the decision-making process on non-sex-typed activities.

Hypothesis 3: a. Boys will demonstrate a developmental increase in preference for masculine activities.

b. Girls will exhibit a developmental decrease in preference for feminine activities.

This final hypothesis received support in that there was an overall increase in preference for masculine activities with age \( (p < .01) \). This developmental trend was significant for boys between the ages of three and nine years \( (p < .5) \), but not for boys from
five to nine. In other words, boys as young as three years of age demonstrated a clearcut preference for masculine activities, and this preference increased with age. The same developmental trend does exist for girls, but it is nonsignificant. For the most part, the choices of the girls appeared equally split between masculine and feminine activities.

Toy choices also support this final hypothesis. Boys initially chose a significantly greater number of cars ($p < .001$), and this trend increased with age. (The age increase was nonsignificant, however, due to a ceiling effect.) Girls initially chose a greater number of dolls ($p < .001$), but chose an increasing number of cars with age such that there was a significant difference between the three-year-old girls and the nine-year-old girls ($p < .05$).

It is evident that all of the general hypotheses presented in Chapter 1 have received some support from the results of this experiment. What is not so evident as yet is the process through which sex-role learning takes place. The results of this experiment indicate which activities a child prefers for himself/herself. It is obvious from the choices of the boys that a concept of appropriate (masculine) sex-role, in terms of specific activities, is acquired at a very early age. That three-year-old boys should show such a clearcut preference for masculine activities is surprising in light of most of the descriptive research on the development of sex-role concepts. However, Kohlberg and Zigler (1967) have shown that
concept formation is correlated with IQ rather than with age per se. All of the children in this study came from middle-class and upper-middle-class business and professional families; all of the children were attending preschool at the time of the study. It is likely that the mean IQ of these children was somewhat above average, and that their cognitive development was accelerated.

Whether the girls learn a traditional feminine sex-role and later reject it as a result of a preference for the more prestigious masculine activities or whether they do not equate femininity with a particular set of behavioral rules (as boys seem to do with masculinity) is not clear. The girls in this study do not exhibit a definite preference for traditional feminine activities at any age, and although there was a developmental trend toward increased preference for masculine activities, it was not significant. Several speculations may be offered as possible explanations. First, the girls were asked what they themselves would like to do in making their choices on the test. They were not asked, "What do girls like to do?" as a general statement. If Lynn is correct in assuming that girls learn a more flexible sex role than do boys, it is possible that the girls in this study never did acquire a commonly defined sex role. On the other hand, if the girls as well as the boys in this study may be assumed to have above-average intelligence, perhaps they had already learned and rejected a traditional feminine role. Finally, a

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Toy choices do reveal the effect of initial feminine orientation giving way to increased interest in masculine toys.
subjective glance at the frequency count for each activity chosen
by the girls indicates that with increasing age there is greater
consistency (see Table 10). Three-year-old girls are randomly split
for nearly every activity, whether masculine, feminine, or non-sex-
typed. On the other hand, five-year-old and nine-year-old girls
show a tendency to agree as to which members of each pair are
preferable. Most interesting is the fact that the older girls
choose neither all masculine nor all feminine activities; rather
they choose a few of each, making overall scores equal.

It is possible that the above-mentioned consistency in girls'
choices indicates an age-related concept of "most fun" or "most
interesting". Boys seem to feel some pressure to select all masculine
activities; girls are not subjected to such pressure. Therefore,
the concept that they follow may not be sex-typed at all, but rather
analogous to that used by all of the five-year-old and nine-year-old
children to determine preferred non-sex-typed activities. It is
suggested that girls are bound by an age-appropriate interest factor
rather than by a sex-role factor.

At this point it may be wise to examine the children's responses
on the non-sex-typed choices. Other studies (Hetherington, 1965;
Hetherington and Frankie, 1967) have used non-sex-typed behaviors
for measuring imitation of parents. (Those studies teased out
factors of parental warmth and parental dominance as well as the
parent sex factor used in this study.) In the present study, the
only imitation effect appeared on the non-sex-typed items. As the
Table 10: Frequency count for each sex-typed activity chosen by girls

<table>
<thead>
<tr>
<th>Activity Pair</th>
<th>3-year</th>
<th>5-year</th>
<th>9-year</th>
</tr>
</thead>
<tbody>
<tr>
<td>fashion model</td>
<td>11</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>police</td>
<td>9</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>secretary</td>
<td>13</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>carpenter</td>
<td>7</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>ironing</td>
<td>12</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>sawing wood</td>
<td>8</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>housecleaning</td>
<td>11</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>farming</td>
<td>9</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>knitting</td>
<td>9</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>airplane pilot</td>
<td>11</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>weaving</td>
<td>11</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>basketball</td>
<td>9</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>using make-up</td>
<td>12</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>lifting weights</td>
<td>8</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>sewing</td>
<td>12</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>hunting</td>
<td>8</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>nurse</td>
<td>10</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>house painter</td>
<td>10</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>cheerleader</td>
<td>9</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>baseball</td>
<td>11</td>
<td>9</td>
<td>11</td>
</tr>
</tbody>
</table>
children increased in age, their responses (between subjects) became more and more consistent, i.e. there was an increasing tendency to agree on "most preferred" activities with age. However, when father chose these preferred activities, there was a greater tendency for the children to pick them than when mother chose them, especially for the three-year-old boys. One speculation is that father is perceived as a more interesting person than mother, such that there is an additive effect with interesting activities. Another speculation is that this is a more difficult (more subtle) concept to master than "masculine-not masculine", so that the younger boys are more dependent on father for a decision. If the latter speculation is true, one might expect the three-year-old girls to also show a significant imitation (of mother) effect. This is not the case, possibly because girls do not feel the same pressure to conform to same-sex as do boys.

A few comments on the technical aspects of this experiment are appropriate at this point. There were two measures of sex role used in this study, and results were somewhat different for each. For boys, the masculine preference was definite and increased with age on both the activity choices and the toy choices. For girls, however, toy choices revealed an initial feminine preference which

7

This was an effect which was not anticipated at the outset and which results from the coincidental pairing of the non-sex-typed picture-activities. Therefore, the relevance of this effect can only be assessed by means of a post hoc interpretation. The term "most preferred activities" is also a post hoc evaluation.
decreased with age, while activity choices indicated neither masculine nor feminine preference. The basic difference between the activity choices and the toy choices is an age-appropriate one. The dolls and cars were used as prizes because of their previously rated appropriateness for children of early elementary-school age (Sutton-Smith, Rosenberg, and Morgan, 1963; Fauls and Smith, 1963). The activity choices were adult activities; they were activities that children might participate in or play at, but basically were used here because they were behaviors in which the mothers and fathers might themselves engage. Children's games were not used for the activity choices because it was felt that credibility would suffer if parents were asked to choose such for themselves. The age-appropriateness of these measures is an interesting distinction. Sears et al. (1965) found that boys avoided all adult activities on a projective measure and concluded that boys perceived participating in adult activities as compliance and therefore feminine. Since adult activities were the only options offered here, boys may have felt further pressure to cling to the clearly defined masculine activities. Girls, of course, would experience no such dilemma.

A second problem arises in that the choices of masculine or feminine activities were mutually exclusive. That is, choosing masculine precluded choosing feminine and/or imitating father precluded imitating mother (and vice versa). Huston-Stein (1976) suggests that this is an invalid method for measuring sex-role development, as masculine and feminine attributes need not be
mutually exclusive and may even be quite compatible. She postulates that androgyny, or incorporation of both masculine and feminine attributes in both males and females, is most adaptive. In that case, a rank ordering of preferred activities might have been more valid. The suspicions of this writer are that the results obtained in this study would be little different.

A final methodological observation concerns children's modeling of their parents' activity choices, which was anticipated at the outset but was not evident on the Picture Activity Test. One might speculate at this point about the reasons imitation did not occur. Other studies (especially those of Bandura and those of Hetherington) reveal large modeling effects related to a variety of model characteristics, including sex of model. In this study, however, even the three-year-old children exhibited no imitation of parents on sex-typed choices, and very little imitation on non-sex-typed choices. These results were surprising in light of the previous research. However, there is an important procedural difference between this study and earlier imitation studies. Most of the modeling studies which influenced the methods applied here involved models who were strangers to the children. Those that did involve parents as models conducted the research in a carefully structured laboratory setting so that observations might be easily controlled. For practical reasons the research described in this paper was conducted within the S's homes with both parents present as models.

In addition the activities to be chosen on the Picture Activity Test
were carefully illustrated so that they would be familiar to the children. It is suggested that there was no confusion experienced in these testing sessions that might have caused the children to search for cues from parents indicating appropriate behavior.

DuHamel and Biller (1969) have shown that 5-year-old children exhibit relatively more imitation of projective parent figures in an unfamiliar situation than in a familiar situation. It is possible that other studies have obtained imitation effects because the model, the task, and/or the testing situation itself were unfamiliar to the children. This observation is relevant not only as an explanation for lack of modeling effects in this study; more importantly, it reveals the necessity of qualifying earlier generalizations about children's imitation of parents in a naturalistic setting based on artificial laboratory methods.

It is difficult to assess the accuracy of the major theoretical explanations of the process of sex-role development. This was a descriptive developmental study and as such provides some controlled observations but little differentiation among the various theories. The imitation of parents anticipated at the outset did not materialize as expected. Even the youngest children in this study exhibited very little dependence on parents for their own choices on the Picture Activity Test. It may be speculated that imitation precedes rather than follows concept formation, but the evidence here is far from conclusive. Assuming, however, that it does, the imitation behavior
and concept formation process in these children occurred at a very early age and was nearly complete by age three, the age of the youngest children in this study.

Obviously, the theories presented in Chapter I must be integrated to provide a full view of the process of sex-role development. Direct and indirect reinforcement for traditionally masculine or feminine behavior begin shaping concepts early; with cognitive development comes the ability to categorize and label these early experiences and apply them in novel situations. Affective development allows values to be attached to them. Interestingly, it is psychoanalytic theory -- the most difficult to operationalize and examine scientifically -- which first differentiated between the incorporation of the masculine and feminine roles. This interpretation emphasizes the differential amounts of trauma experienced by boys and girls in the resolution of the Oedipal and Elektra conflicts respectively and the resulting defensive reactions. Freud suggested that girls translate their infantile sexual desire for father into a desire to become a mother via more socially acceptable channels. Boys, however, are so totally traumatized by castration anxiety that they completely abandon their infantile desire for mother. In Freud's words:

The (Oedipal) complex is not simply repressed, it is literally smashed to pieces by the shock of threatened castration. (A woman's) superego is never so...impersonal, so independent of its emotional origins as we require it to be in men. (1927, p. 142)

Males therefore have greater unconscious motivation to cling to the
rational, the nonemotional, the strictly masculine. This is a fascinating analysis, difficult to prove or disprove. It must be kept in mind that although there are more parsimonious explanations, they are not necessarily incompatible with the traditional psychoanalytic view.

It appears that the results of this study provide some support for David Lynn’s theory of sex-role development. Of all the major theorists, Lynn has especially emphasized the differential socialization process of boys and girls. Although this experiment offers no support for Lynn’s description of modeling influence (indeed, the opposite is true, in that young boys imitated fathers on some items, but girls imitated neither parent), there is impressive support for the notion of rigidity of the masculine sex role and flexibility of the feminine one. Lynn suggests several reasons for this phenomenon: 1) differing same-sex model availability, 2) prestige of male activities, and 3) strong reinforcement for boys, lack of reinforcement for girls to maintain traditional sex roles. In light of the recent feminist movement, the latter is the most intriguing.

What has been the effect of recently changing attitudes toward traditional sex roles? Over the past decade women have entered traditionally masculine realms, in careers, in social events, even in "personality dimensions". No longer does a woman seek work only for extra income; many seek fulfilling business and professional careers instead of or in addition to that of traditional homemaker.
Public attitudes are gradually changing to accommodate such endeavors. How have these changes affected the families in which the socialization of children takes place?

Some children are undoubtedly directly taught by their parents, by means of verbal or behavioral modeling, that girls can become doctors as well as nurses, senators as well as brides. Other children may learn more indirectly, through books, teachers, friends, movies, etc. These "new" attitudes serve only to loosen the feminine sex role further, so that if the traditional feminine role is learned at all, it is considered old-fashioned, out-of-date, nonapplicable.

On the other hand, there has been little pressure on the general public to loosen the traditional masculine roles. Birth control can allow women to remain childless, but it cannot allow men to bear children. Prestige and a desire for self-actualization can pull women into the job market, but the drudgery of housework does not tempt many men into becoming homemakers. Of course, Freud believed that certain qualities were inherent in each sex because of the Oedipal and Elektra conflicts. In his words:

> We must not allow ourselves to be deflected from our judgments by the denials of the feminists, who are anxious to force us to admit complete equality in the position and worth of the sexes... we shall, of course, willingly agree that the majority of men are also far behind the masculine ideal... (1927, p. 142)

However, half a century later, it is clear that learning and practice can drastically alter both the concept of sex roles and the value placed on them by society.
The results of this study indicate that there are significant developmental changes in preference for specific sex-typed activities among boys. Although at all ages boys were significantly more masculine in their preferences on the Picture Activity Test than were girls, there was a significant increase in masculine choices between the ages of three and five for boys. However, after age five, masculinity scores remained the same, such that nine-year-old boys did not differ significantly in their masculine choices from five-year-old boys. Let us examine this specific developmental trend in relation to several areas of general development.

It may be speculated that the three-year-old boys in this study had acquired the beginnings of the complex concept of "masculinity" as it applies to specific activities through social learning influences. Direct and vicarious reinforcement (through modeling) begins to shape the young boy's performance, but does not fully account for his internal classification of himself and masculine activities as related. If, however, the boy discovers the uniqueness of his masculinity through the understanding of anatomical sex differences at age five or six (Katcher, 1955), this categorization becomes complete. Activities that have been socially defined and reinforced as "masculine" suddenly take on new personal meaning. Masculinity is expressed concretely and stereotypically at this developmental level.

There is no analogous realization of physical "specialization" in girls at age five. It is more difficult to learn a concept by
the absence of positive attributes (i.e. lack of a penis) at this concrete level of reasoning; it is more difficult for young girls to understand the uniqueness of their own bodies, as their genital organs are internal. Parents' explanations that girls are special, too, because they can eventually have babies (which boys cannot) is a rather distant comfort: far in the future to the five-year-old and little aid in understanding her own anatomical structures.

There is, of course, a concrete and observable physical change in girls at puberty with the onset of breast development. This is viewed positively by girls as a confirmation of femininity. It is likely that there is an increase of interest in traditionally feminine activities at this time, but the results of this study cannot be extended to include early adolescence. A fascinating difference, however, between the boys' and the girls' theoretical physical confirmation of uniqueness of sex is that it occurs at differing ages. A five-year-old boy's reaction to the uniqueness of having a penis occurs at a very different level of cognitive and affective development than a twelve-year-old girl's reaction to her physical changes. Because of this important developmental difference, girls have greater flexibility of intellectual analysis for interpreting its meaning. They are not likely to be as concrete and rigidly stereotyped as boys at age five were. (They are also aware by this age of their dependence on males to be able to actually produce a baby.) Therefore, it is further speculated that any increase in preference for traditionally feminine activities in
early adolescence is tempered by cognitive, emotional, and experiential influences of an advanced developmental level.

As males approach adulthood, they too encounter cognitive, emotional, and experiential advances. An adult masculine role frequently includes achieving in a career, maintaining a marriage, and raising children. Individual activities are not as clearly stereotyped as they appeared at age five. It is likely that their original masculine preferences become somewhat more flexible with maturity. However, because of its origins and because of society's continued pressure to "be a man" (which somehow has a more obvious and positive connotation than "be a woman"), masculinity remains more rigid than femininity.

In conclusion, it appears that there is at present a continuing strong pressure on young boys to acquire a traditional masculine sex role. This expectation is undoubtedly transmitted first through the parents, and since each boy in this study was in the presence of his parents when he indicated his choices, the masculine identity was reinforced. Even very young boys have a primitive understanding of the masculine expectation, indicating mostly masculine choices and relying on father when activities are not clearly defined as such. On the other hand, girls seem to feel less social pressure today to conform to a traditional feminine role than they did ten to twenty years ago.

The role of modeling is still vague at this point. There is slight evidence from the results of this study that imitation of
parents precedes concept formation. However, there is also some evidence that father may be perceived by all of the children as a more interesting model. This may be a combination of mystery, dominance, and/or the tendency for boys but not girls to orient toward same-sex at an early age.

Further research in this area may branch in several directions. First, observations of behavioral modeling in children between the ages of eighteen months and three years may clarify the role of imitation of parents. For example, is imitation selective for sex of parent, and if so, does it differ for boys and girls? Second, do the sex-role preferences of young children change as they reach adolescence and maturity? For example, do girls become more traditionally feminine-oriented as a result of secondary sex changes and an interest in their new, noticeable physical uniqueness? Does the masculine attitude ever become more tolerant of activities labeled feminine? Finally, a future longitudinal or follow-up study of children who have been raised with "liberated" values may shed some light on the differential effect of breaking the molds.
Chapter V -- Summary

This study investigated the influence of parents' choices of sex-appropriate, sex-inappropriate, and non-sex-typed behaviors on the acquisition of children's sex role. Several theories were presented for their relevance to this developmental process.

Various physiological studies were discussed to demonstrate the difficulty of identifying biological vs. environmental bases for sex-typed behavior. Cross-cultural studies have also argued this distinction from an anthropological viewpoint. Although it was assumed that there may be some behavioral tendencies in males and females due to biological differences, this study was concerned with the influence of observational learning or imitation on the child's choices of specific sex-typed activities.

The traditional psychoanalytic viewpoint has offered one explanation for the young child's interest in the activities of the same-sex parent, from whom he/she acquires masculine or feminine preferences. This process depends on the resolution of the Oedipal/Elektra conflict, which causes the child to identify with and imitate the same-sex parent in order to overcome infantile sexual desire for the opposite-sex parent. Identification results in incorporation of a specific value system, so that masculine or feminine preferences acquire a strong affective loading.
Social learning theory, which has been based on experimental research with young children, emphasizes a different aspect of sex-role development. Through observation, children learn all types of behavior. Vicarious reinforcement affects performance of these behaviors, which are then further shaped by direct reinforcement. Girls are rewarded for feminine behaviors and imitation of adult females; boys are rewarded for masculine behaviors and imitation of adult males. In this way children learn what activities are sex-appropriate for them.

Cognitive-developmental theory applies the above-mentioned principles to the formation of concepts. Age changes bring new cognitive abilities for abstracting, categorizing, and labeling "masculine" and "feminine" activities. Due to egocentric evaluation, children value activities and persons that they perceive to be like-self. Therefore, learning one's sex leads children to value activities, peers, and parents who bear the same label. Imitation of a particular parent evolves out of a cognitive understanding of similar sex role.

Finally, David Lynn has emphasized the difference between masculine and feminine attitudes about sex roles. Due to differences in model availability, direct reinforcement, and societal pressures, boys develop a rigid masculine sex role; while girls develop a fairly flexible feminine one.
Hypotheses for this study reflected all of these viewpoints. They were

1) boys and girls will show a significant difference in preference for traditionally-rated sex-typed activities and toys,

2) children will tend to imitate the same-sex parent, but this trend will decrease with age, especially for activities clearly defined as masculine or feminine, and

3) boys will demonstrate a developmental increase in preference for masculine activities; girls will exhibit a developmental decrease in preference for feminine activities.

These hypotheses were tested in an experiment involving a 3 x 2 x 3 design of the following factors:

1) age of child (3 years; 5 years; 9 years),

2) sex of child (male; female), and

3) (set-up) choices by the child's parents on a forced-choice activities-pictures test (parents chose sex-appropriate, sex-inappropriate, and non-sex-typed activities).

Children's own responses to the same forced-choice pictures test of masculine-feminine or non-sex-typed activities were obtained after they had observed the choices of mother and father. Children were also observed on their choices of dolls (feminine) or cars (masculine) as prizes.

On the sex-typed choices, results indicated that boys as young as three years of age prefer masculine activities, and this preference increases with age (for both the activities and toys measures). All girls chose masculine and feminine activities equally often on the Picture Activity Test; they chose feminine toys, but this preference decreased with age.
On the non-sex-typed activities, there was a tendency for all of the children to become more consistent in their agreement of "most preferred activities" with age. There was also a trend toward father imitation on these preferred activities; this trend was especially significant for three-year-old boys.

The results suggested that, for a variety of reasons, boys become more masculine through the elementary school years, while girls become if anything less feminine, maintaining a flexible sex role. Masculine activities appear to be especially interesting; girls do not exhibit imitation of same-sex parent; boys seem to experience more pressure, especially in the presence of parents, to conform to same-sex expectations. It was suggested that the recent feminist movement has further "liberated" females but has not affected masculine conformity.

Further research in this area may follow several lines:

1) following children into adolescence and adulthood, in order to describe the direction of sex-role development,

2) examination of sex-role development in children whose parents both maintain active careers and share housework (modeling androgyny), and

3) observation of behavioral modeling prior to three years of age to clarify the effect of imitation of parents.

Researchers interested in imitation were cautioned about generalization of results based on artificial laboratory procedures to the child's (familiar) home environment.
References


Freud, S., Some psychological consequences of the anatomical distinction between the sexes, Int. J. of Psychoanalysis, 1927, 8: 133-142.


Huston-Stein, A., New directions in understanding sex roles, SRCD Newsletter, Su., 1976, pp. 5-6


Appendix A.

Letters to Parents
Dear Parents of ________________________:

As part of my University requirements, I am studying the development of masculinity and femininity in young boys and girls. I am particularly interested in the ages at which children begin to imitate their parents' choices of masculine and/or feminine behaviors. I am seeking the cooperation of mothers and fathers of young boys and girls, as the study involves both of the parents and their child. Home visits will be arranged at a time convenient to your family; total time involved will be about thirty minutes.

If the child and both parents can participate in this study, please sign the form below and return it to the child's classroom teacher. Thank you for your consideration.

Sincerely,

Marilyn Eshelman Moody
Doctoral Candidate
Clinical-Child Psychology

Malcolm Helper, Ph.D., Adviser

Our family would like to participate in your study. Please phone us at _________________ to schedule a home visit.

_________________________  __________________________
Date                                      Parent's Signature

_________________________
Child's Name

APPROVED BY (CHILD'S SCHOOL)
Appendix B.

Masculinity-Femininity Rating Scale
Directions:

This questionnaire involves the rating of behaviors and activities as masculine, or as feminine, or as non-sex-typed (performed or preferred equally often by males and females).

According to present-day standards in our society, rate each behavior from 1 (very masculine) to 5 (very feminine):

1 = very masculine
2 = somewhat masculine
3 = non-sex-typed (neither masculine nor feminine)
4 = somewhat feminine
5 = very feminine
n = 246, 139 males and 107 females

sleeping (2.98)
scientist (2.37)
construction worker (1.13)
playing guitar (2.82)
wearing jewelry (3.86)
hunting (1.56)
painting a picture (3.04)
collecting garbage (1.40)
race car driver (1.35)
dancing (3.35)
tennis (2.94)
housecleaning (4.12)
watching TV (3.05)
cheerleader (4.29)
cooking (3.74)
knitting (4.58)
truck driver (1.38)
eating (3.00)
boxing (1.13)

ice skating (3.16)
carpenter (1.53)
mechanic (1.39)
sewing (4.45)
changing a lightbulb (2.90)
telephone operator (3.88)
singer (3.03)
football (1.25)
librarian (4.00)
baseball (1.68)
florist (3.38)
medical doctor (2.27)
bikeriding (3.00)
painting a room (2.72)
nurse (4.20)
farmer (1.63)
fashion model (4.27)
jogging (2.70)
forest ranger (1.60)
secretary (4.41)
sawing wood (1.82)
ironing (4.19)

reading (3.02)
lifting weights (1.34)
plumber (1.44)
swimming (2.99)
listening to records (3.00)
going to movies (3.02)
basketball (1.86)
horseback riding (3.05)
preacher (1.69)
talking on telephone (3.42)
mowing grass (2.25)
weaving (4.13)
lawyer (2.09)
airplane pilot (1.46)
house painter (1.81)
soldier (1.26)
driving a car (2.89)
camping (2.67)
police (1.76)
using make-up (4.60)
gardening (3.25)
bartender (1.96)
shopping (3.64)
barber (2.00)
Appendix C

Forced-Choice Pictures Test

#71-80: Masculine-Feminine Pairs
#81-85: Non-Sex-Typed Pairs
#86-88: Sample Item Pairs
Using Make-up

Lifting Weights
Carpenter

Secretary.
Cheerleader

Baseball
Police

Fashion Model
House Painter

Nurse
Ironing

Sawing Wood
Weaving

Basketball
Farmer

Cleaning House
Horseback Riding

Going to Movies
Listening to Records

Watching TV
Singer

Painting Picture
Cooking

Mowing Grass
Ice Skating

Tennis
Dancing

Playing Guitar