ABSTRACT

CULTURAL OBJECTS AND APPARENT SYMBOLS AS SEX DISCERNMENT FACTORS AMONG PRESCHOOL CHILDREN

by Audray L'H. Weese

The primary purpose of this exploratory study was to investigate the relationship of age and sex and the preschool child's capacity to recognize the sex appropriateness of adult male and female task and appearance items. Specific hypotheses which involved the association of the child's age and pattern and number of errors were proposed. An instrument was developed in order to test the proposed hypotheses and to explore the association of sex and sibling relationships and the number and pattern of errors. A questionnaire was also developed in order to obtain certain background information from the parents of the children interviewed. The final instrument was administered to 120 middle class boys and girls between the ages of thirty and sixty months. The chi-square test of significance was employed to analyze the data pertaining to the association of age and sex and pattern and number of errors.

The findings of this study may be summarized briefly as follows:

(1) The child's age is directly related to the accuracy of his discernment of the appropriateness of male and female task and appearance items. The older the child the fewer are the number of errors he makes in judging the appropriateness of adult appearance and task sex-linked objects.

(2) For the children of this sample sex alone was not found to be significantly associated with the number of error responses on the sex-linked items.

(3) Age was not found to be significantly associated with the pattern of error responses on the four categories of sex-linked items. Although the older boys and girls made fewer errors, the errors were randomly distributed among the male and female task and appearance items.

(4) A moderately significant association ($P < .05$) was found between sex and error responses on the four categories of male and female items. In terms of statistical probability, the girls of this sample were found to be more accurate in their sex designation of male and female appearance items while the boys were found to be more accurate in their sex designation of male and female task items.

(5) For these age groups there was no significant association found between age and greater accuracy in the recognition of the sex appropriateness of task items.

(6) An extremely significant association ($P < .001$) between sex and error responses on only the female task and female appearance items was in evidence. In terms of statistical probability the girls of this sample were more accurate in their sex designation of female appearance items while the boys were more accurate in their sex designation of female task items.

(7) When only the error responses on the female appearance items and male appearance items were associated with sex, a highly significant association ($P < .01$) was found. In terms of statistical probability the boys and girls of this sample made fewer errors than expected in designating the sex appropriateness of same-sex appearance items.

An analysis of the association of number and pattern of errors and sibling relationships demonstrated that for this sample population sibling relationships are not associated with the child's capacity to

distinguish the sex appropriateness of adult male and female task and appearance items. The association of number of error responses and sibling relationships could not be tested statistically while controlling for age since all the theoretical frequencies were considerably under five.

CULTURAL OBJECTS AND APPARENT SYMBOLS AS SEX DISCERNMENT FACTORS AMONG PRESCHOOL CHILDREN

By

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CHAPTER I

INTRODUCTION

Statement of the Problem

The effective socialization of the young is a task upon which the survival of every organized society depends. Each societal member must learn the defined roles and patterns of his society. Universally every human being must know to which sex he or she belongs, and the recognition of and the distinction between these two polar types must be learned by the individual in terms of a particular cultural setting.

This study centers upon the cultural factors which help the child learn appropriate sex-role behavior. The purpose of this study is to investigate the function of certain cultural objects and apparent symbols in the communication of culturally defined male and female distinctions. The term cultural objects is used to denote tools, kitchen utensils and implements associated with certain male and female tasks, while apparent symbols are those items which are associated with male and female appearance. These apparent symbols include clothing, cosmetics, coiffure furnishings, and any such paraphernalia which distinguishes one's appearance as male or female. Specifically this study is designed to ascertain the American preschool child's ability to differentiate among task oriented and appearance oriented male and female items.

Review of Literature

The development of the self is an involved and complicated process of socialization--the transmission of culture and the integration of the individual into organized life. In any culture an individual's daily behavior possesses some measure of predictability in various defined situations. Every society establishes sanctioned means of behavior for all its members, and the emergence of the socialized individual is dependent upon the standardization of behavior patterns which are communicated to the new generation.

In contrast to subhuman organisms, group life among homo sapiens is a matter of cooperative behavior which is brought about by more than mere physiological factors. The physiology of the human species defines certain broad survival needs, but each society defines and elaborates these needs in its own way. Consider the varied behavior associated with eating a meal. According to standards of etiquette prescribed by an individual's culture and social class, persons with similar states of hunger may demonstrate a wide range of differences in food preferences. The Chinese avoid milk and milk products although it is available, and Americans abhor snake meat which is also available and quite nourishing. Social, religious, and personal symbolism surrounds the eating of food for people all over the world. These phenomena are scarcely accountable for solely on biological grounds.

Within the confines of any society there are certain broad behavior expectations connected with the fact that one is male or female. Different activities and attitudes are prescribed for men and for women. How do appropriate sex patterns of behavior become established?

Numerous theories--psychoanalytic, interactionist and learning--deal with the child's learning of appropriate sex-role behavior. Although much insight can be gained from these theories in terms of the broad dynamics of role learning, they yield little substantive information which deals specifically with the cultural items upon which this role learning is based. An examination of the substantive literature reveals that very few studies have been done which deal directly with this area. However, those available are valuable as a basis from which further studies may be launched.

The earliest of these substantive studies by Conn and Kanner[1] indicates that clothing and dress are the first criteria by which the 200 children employed in their research differentiated between the sexes. At four years of age hair was the most distinctive feature, clothes were introduced at five years, strength and body configuration at eight years, and gait at nine years.[2] Conn and Kanner also found that some of these young children declared categorically that removal of clothes made a distinction between boys and girls impossible.[3] The researchers found that older children from urban areas were generally more cognizant of genital differences between the sexes. This seems to indicate that the criteria by which children discern differences in sex may depend to a certain degree upon such factors as social class, number of siblings, age of siblings, moral philosophies of the parents, and conditions of housing. However, the typical answer by which children differentiated between male and female was that little boys wear pants or suits and little girls wear

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[1]J. H. Conn and L. Kanner, "Children's Awareness of Sex Differences," Child Psychiatry, I (1947), pp. 3-57.

[2]Ibid., p. 55.

[3]Ibid., p. 13.

dresses. Overalls, underwear, shirts and neck ties were included as being appropriate for boys while petticoats, slips, blouses, skirts and ribbons were categorized as appropriate for girls.[4] Although the researchers employed as many as 200 in the sample, the age range of the subjects, four to twelve years, was rather broad. In addition, the girls were under-represented--128 boys and only seventy-two girls. Conn and Kanner also made no attempt to control for social class. Finally, the children of the study were not actually "normal," for they were referred cases from the Pediatric Department of the Johns Hopkins Hospital. Only those with serious retardation were excluded from the study.

The Rabban[5] study of 300 children, ages two-and-one-half to eight years, analyzes boys' and girls' preferences among a selection of sex-typed toys. Despite the fact that this study does not deal directly with clothing and appearance, it offers valuable data in terms of social class variables, for Rabban suggests that wide differences in social class membership are related to differences in sex-role preference and identification. Rabban found that in both working class and middle class groups boys are more clearly aware of sex-appropriate behavior than are girls. Also, in the working class group boys and girls are earlier and more clearly aware of the sex-role pattern. Rabban notes that at the age of three both boys and girls of both groups are unaware of the sex-linked appropriateness of the toy objects. During the fourth and fifth years there was a growth in clarification for working class boys, while the sixth year was found significant for middle class boys. By the age of six,

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[4]Ibid., p. 12.

[5]Meyer Rabban, "Sex-Role Identification," Genetic Psychology Monographs, XLII (August, 1950), pp. 89-154.

working class girls accepted the sex appropriate pattern, but for middle class girls the age was eight.[6] A factor which merits consideration in this study is the validity of the toys as a test medium. The researcher chose adult men and women as well as nine to eleven-year-olds to determine agreement of the sex-appropriateness of the toys. Since there were 317 adult men and women and only sixty-four nine to eleven-year-olds, adult opinion was considered more important than near peer opinion in the validation of the toys as a test medium. Also, social class variables were not considered in the structuring of the instrument. This may be a factor which would cause some bias in the final results.

Daniel G. Brown,[7] in a study of seventy-eight male and sixty-eight female middle class kindergarten children, rated the children's responses to the ITSC, It Scale for Children. The ITSC consisted of thirty-six picture cards, three by four inches, depicting various objects, figures and activities commonly associated with masculine or feminine roles. A drawing of a child which was referred to as "It" was used by having each child choose cards which he thought the "It" would prefer. The researcher assumed that by using this method the child would project himself into the "It," thus revealing the child's own role preference. Included in the ITSC was an eight paired picture section consisting of paired items directly connected with masculinity-femininity in adult as well as childhood sex roles. A major shortcoming of this research is that Brown did not validate the ITSC instrument. Another possible source of bias in this study was that the "It" drawing was not pretested in terms of whether it was

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[6]Ibid., p. 141.

[7]Daniel G. Brown, "Sex-Role Preferences in Young Children," Psychological Monographs, LXX (1956), pp. 1-19.

perceived as neutral in sex traits. In conclusion Brown points out that the position of a child in the family with respect to the presence or absence of siblings of the same or opposite sex has an influence on his sex-role development. Brown notes that this area of study should receive further consideration.

More recently Evelyn G. Pitcher studied ways in which parents accent sex differences in young children.[8] She reports that clothing and appearance play a large part in the parental promotion of femininenes and masculineness. One mother reported her husband's delight at seeing his daughter in a dress for the first time. Pitcher's interviews with parents reveal that sex-typing by parents in terms of clothing and appearance influences and strengthens children's awareness of sex differences, and such differences exist from a very early age in the American child.

Pitcher's play interviews with children, both boys and girls reveal that girls mention clothing with more attention to detail, color and suitability of costume than do boys.[9] Again, these results indicate that the child learns to equate certain apparent cultural symbols as appropriate for the enhancement of himself. Likewise, these apparent symbols are the means by which the child distinguishes between male and female.

In summary, the studies by Conn and Kanner, Pitcher, Brown, and Rabban indicate that the sexual role is one for which the child is trained through the use of sex-appropriate language, clothing, coiffure, gait, play, recreation and work. In all of these investigations emphasis was placed upon cultural sex-linked objects

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[8]Evelyn G. Pitcher, "Male and Female," Atlantic, Vol. 211 (March, 1963), pp. 87-92.

[9]Ibid., p. 91.

associated with the roles of children. None of these studies dealt directly with adult oriented male and female task and appearance items. This research will make use of the substantive findings reviewed above, but will focus upon the child's discernment of adult sex-linked objects.

Focus of the Study

The basic goals of this study are twofold; first, to develop an instrument to measure the accurateness of the child's recognition of appropriate adult sex-linked objects; and second, to explore the association of age, sex and sibling relationships and the child's capacity to discern the appropriateness of sex-linked items. There were, however, certain broad hypotheses which guided this study.

(1) The child's age is directly related to the accuracy of his discernment of the appropriateness of male and female task and appearance items.

It is proposed that as a child matures and there is a deepening and strengthening of his socialization, his awareness of objects associated with either male or female becomes more trenchant. To test for this broad hypothesis, the following subhypothesis was developed.

(A) The older the child the fewer will be the number of errors he will make in judging the appropriateness of appearance and task objects.

(2) The older the child the greater will be his capacity to recognize task items in the discernment of sex.

The concern here is with the child's awareness of the appropriateness of appearance items versus task items. It is proposed that in the young child recognition between the sexes in terms of

appearance precedes recognition between the sexes in terms of task items. It is believed that the young child must become more socialized before he is capable of grasping male and female distinctions in terms of role oriented task items.

CHAPTER II

METHODOLOGY

The methodology for this study will be presented as follows: (1) selection of method, (2) development of the instrument, (3) pretest, (4) the community setting, (5) selection and description of the sample, (6) administration of the instrument, and (7) method of analysis.

Selection of Method

Because adult appearance and task items as sex discernment factors among preschool children has never been explored, it was felt that an exploratory study would yield the most fruitful findings. Selltiz indicates that in problems where there is little knowledge available, an exploratory study will usually be the most appropriate approach. "Exploratory studies have the purpose of formulating a problem for more precise investigation or of developing hypotheses."[1]

In formulating the research procedure for this exploratory investigation the focus was placed upon children of preschool age. Developmental factors of the preschool child such as comprehension of language, language facility, and sociability, were considered in determining the technique which would yield the best response data. Researchers have found that a verbal interview in conjunction with accessory or play material highly successful among children of more

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[1]C. Selltiz, M. Jahoda, M. Deutsch and S. W. Cook, Research Methods in Social Relations (New York: Henry Holt and Co., Inc., 1960), p. 51.

than two years of age.[2] Also, with children under four years of age a choice technique in which the problem is defined verbally by the interviewer is valuable, for it does not make great demands upon the child's verbal ability while at the same time it maintains the child's interest.[3] For these reasons it was decided to develop an instrument and a method of interviewing by which the child would have articles to handle. Likewise, the intent was to choose objects which were directly related to the interview, i.e., objects about which the questions would be asked. In turn, it was regarded desirable to structure the interview so as to request only one choice from the child.

Another factor which was considered was the setting of the interview. Each child was interviewed in a setting with which he was familiar, i.e., a room of the nursery school or in his own home. The physical setting was deemed an important consideration for ideally it is a factor which facilitates the reduction of anxiety and the maximization of rapport in an interview relationship.[4]

Development of the Instrument

Since the aim was to use a medium of investigation which would elicit responses in terms of the child's recognition of adult sex-appropriate items, actual items were chosen for the instrument rather than symbolic representations through the use of pictures. It was felt that the child would respond more readily to concrete objects

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[2]Paul H. Mussen (ed.) Handbook of Research Methods in Child Development (New York: John Wiley and Sons, Inc., 1960), p. 571.

[3]Ibid., pp. 564-565.

[4]Ibid., p. 571.

which he could manipulate, for accessory materials help to reduce self-consciousness in the child during an interview.[5]

The selection of the male and female task and appearance items used in this instrument was made by a committee of four--two sociologists, a co-worker, and the writer.[6] The committee was organized in order to facilitate a united discussion and contemplation of possible items to be chosen. It was felt that this group procedure would add more objectivity to the evaluation of the appropriateness of the male and female articles.

After much selection and rejection of possible items for the instrument, the committee purchased the following paraphernalia. The sixty-three original choices of female appearance items, female task items, male appearance items, and male task items are listed below.

Appearance Items

Male	Female
Black belt	White belt
Bow tie	Hair bow
Briefs	Panties
Cap	Beach Hat
Tan clothes hanger	White clothes hanger
Black comb	Pink comb
Handkerchief	Handkerchief
Necktie	Scarf
Razor	Lipstick
Shirt	Blouse
Shorts	Shorts
Socks	Hosiery

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[5]Mussen, (ed.), op. cit., p. 571.

[6]The committee members were Dr. Joanne Eicher, Department of Textiles, Clothing and Related Arts; Dr. Arthur M. Vener, College of Social Science; Mrs. Hazel Baxter, and the writer.

Male	Female
Sunglasses	Sunglasses
Tennis shoes	Tennis Shoes
Undershirt	Brassiere
Wallet	Purse
Ring	Ring

Task Items

Male	Female
Clamp	Tongs
Flashlight	Ice cream scoop
Garden gloves	Garden gloves
Oil can	Baster
Paint brush	Feather duster
Paint roller	Rolling pin
Pliers	Peeler
Putty knife	Spatula
Ruler	Tape measure
Screw driver	Wooden spoon
Tool box	Pot
Window cleaner	Dustpan
Work lamp	Iron
Wrench	Measuring spoons
	Egg beater

The committee originally intended to pair the male and female task and appearance items, i.e., the female white belt with the male black belt, the male oil can with the female baster. However, after further consideration this idea was abandoned because it was felt that in requesting a child to choose which item belonged to "Mommy" the matching item would automatically be designated as belonging to "Daddy." Such forced choices would result in biased responses, i.e., free decision as to the appropriateness of every item would not be actualized. The decision not to pair the items also negated the purchase of a male task drill to complement the female task egg beater.

Validity

The validity of an instrument depends on the degree to which a measurement procedure measures what it purports to measure.[7] For the purpose of this study the concern is whether or not the choices of the committee were valid as a means by which to measure a preschool child's discernment of adult sex-linked objects.

To test the validity of the items used as the instrument a population of fifty near peers, twenty-five boys and twenty-five girls, was chosen. It was felt that near peer culture opinion would present a more accurate evaluation of the appropriateness of the sex-linked objects, for "the definitions of masculine and feminine do not remain stable long enough for one generation to serve as model for the next."[8] Beyond the confines of the home there are changing models whose values are internalized in the course of the child's growing up, and a very important source of social learning and imitation is that of the peer culture.[9]

These near peer seven-to-eleven-year-old boys and girl judges were selected from families of middle-middle and upper-middle socio-economic levels, and from families in which both parents were present. The same constants were also specified for the selection of the sample.

The near peers were interviewed to evaluate the committee's selection of the male and female items. Accompanied by a sociologist

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[7]C. Selltiz, M. Jahoda, M. Deutsch and S. W. Cook, Research Methods in Social Relations (New York: Henry Holt and Co., Inc., 1960), pp. 154-155.

[8]Georgene H. Seward, "Learning Theory and Identification: V. Some Cultural Aspects of Identification," Journal of Genetic Psychology, LXXX (1954), p. 232.

[9]Ibid., p. 233.

and a co-worker, the writer interviewed each child in his home environment.[10] The home environment was chosen to provide a casual and familiar setting, thus creating a relaxed atmosphere. Each subject was interciewed separately with only the researcher and the co-worker present. This procedure was deemed appropriate in order to maximize rapport and minimize any possible inhibitions of the interviewee.

In the interview situation the child was presented with a suitcase containing the male and female task and appearance items. The subject was requested to remove the articles from the suitcase, one at a time, and designate whether the article belonged to "Mom" or "Dad." The child was also asked to indicate any item which he felt was appropriate for both men and women. During the interviews the co-worker recorded the responses of the child which differed from the initial categorization of the committee. Responses denoting that an item was appropriate for men and women were recorded as "both."

As a result of the near peer responses it was decided to eliminate those items for which more than two "mistakes" were made. The term "mistakes" refers to a disagreement of opinion between the committee's categorization of the items and that of the near peers. Table 1 summarizes the near peer disagreement with the committee's sex designation of the male and female appearance and task items. Responses indicating that an item was considered appropriate for both men and women were also classified as "mistakes."

After eliminating all items for which two or more mistake responses out of a possible fifty mistake responses were made, i.e.,

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[10]Appreciation is expressed to Dr. Arthur M. Vener who directed this research, for initially contacting the parents of the judges and securing permission from them to interview.

Table 1. Near Peer Disagreement with the Adult Committee as to the Sex Appropriateness of Male and Female Task and Appearance Items

Sex Appropriate Items	Near Peer Disagreement with Adult Committee	
	Boys (N-25) No. of Disagreements	Girls (N-25) No. of Disagreements
Female Appearance Items		
White belt	0	0
Hair bow	4	0
Panties	0	0
Beach hat	0	0
White clothes hanger	7	4
Pink comb	0	0
Handerchief	1	0
Scarf	0	0
Lipstick	0	0
Blouse	0	0
Shorts	11	10
Hosiery	0	0
Sun glasses	0	0
Tennis shoes	0	0
Brassiere	0	0
Purse	1	0
Ring	0	1
Female Task Items		
Tongs	0	3
Ice cream scoop	1	2
Garden gloves	2	3
Baster	0	2
Feather duster	0	1
Rolling pin	0	0
Peeler	0	1
Spatula	0	0
Tape measure	3	7
Wooden spoon	0	0
Pot	0	0
Dustpan	0	0
Iron	0	0
Measuring spoons	0	0
Egg beater	0	0

Continued

Table 1 - Continued

Sex Appropriate Items	Near Peer Disagreement with Adult Committee	
	Boys (N-25) No. of Disagreements	Girls (N-25) No. of Disagreements
Male Appearance Items		
Belt	1	0
Bow tie	0	0
Briefs	1	1
Cap	1	0
Tan clothes hanger	9	9
Comb	3	1
Handkerchief	0	2
Necktie	0	0
Razor	0	0
Shirt	1	0
Shorts	0	1
Socks	1	0
Sun glasses	4	1
Tennis shoes	1	0
Undershirt	11	4
Wallet	4	1
Ring	3	1
Male Task Items		
Clamp	0	0
Flashlight	1	0
Garden gloves	0	0
Oil can	1	0
Paint brush	0	0
Paint roller	0	0
Pliers	0	0
Putty knife	3	5
Ruler	1	0
Screw driver	0	0
Tool box	1	0
Window cleaner	6	1
Work lamp	2	2
Wrench	0	0

ninety-six per cent level of agreement, the following items remained in the instrument:

Appearance Items

Male	Female
Black belt	Beach hat
Bow tie	White blouse
Briefs	Belt
Cap	Brassiere
Handkerchief	Pink comb
Necktie	Hosiery
Razor	Lipstick
Shirt	Panties
Shorts	Scarf
Socks	Sun glasses
Tennis shoes	Tennis shoes
	Handkerchief*
	Purse*
	Ring*

Task Items

Male	Female
Clamp	Baster
Flashlight	Dustpan
Garden gloves	Egg beater
Oil can	Feather duster
Paint roller	Iron
Paint brush	Measuring spoon
Pliers	Peeler
Ruler	Pot
Screw driver	Rolling pin
Tool box	Spatula
Wrench	Wooden spoon

A review of the items remaining in the instrument indicates that there are fourteen female appearance items while each of the other categories has eleven items. It was decided that equalization

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*These items were eliminated from the instrument for the purposes of exposition and analysis.

of the number of items in each category would facilitate cross data comparisons and other data analysis. Hence, the female ring, purse, and handkerchief were eliminated from the instrument, since there was one mistake response on each of these items.

Reliability

The term reliability refers to the obtaining of the same response data when a test has been administered repeatedly to the same population. For the purposes of this study a test-retest for reliability was not feasible. The reasons for this are twofold. First, the items chosen for this instrument were novel in form and content, and a reasonable time would have to elapse before a repeated administration of the instrument could occur. Otherwise, the subject might remember what he saw and did. Secondly, it would be expected that with an elapse of time further socialization would have taken place in the child, hence, it would be unusual to obtain the exact same response data, especially for the younger child.

Pretest

Six preschool children from East Lansing were interviewed for the pretest to provide a base of experience for the researchers, to test the interview technique for comprehension at this age level, and to see whether or not the length of the interview was within the attention span of the preschool child. The pretest interviews were done at the Michigan State University Laboratory Preschool during July, 1963.

In the nursery school setting the researcher approached the child to be interviewed and became acquainted by talking with him and becoming involved in his activity. When the appropriate moment

arose the child was asked if he would like to play a game that was in the other room. When the subject consented to playing the game, he and the researcher went to another room where the interview was to take place. The child was presented with a suitcase, and the researcher said:

> "We're going to play a game. I have a whole suitcase full of Mommy's and Daddy's things. I want you to take the things out of the suitcase one at a time and tell me who each thing belongs to."

A co-worker recorded the incorrect responses of the child.

The length of the interview in the pretest ranged from ten to fifteen minutes. As a result of the pretest the instrument and the interview technique proved to be quite amenable to the research requirements.

The Community Setting

The community from which the sample for this study was chosen was East Lansing, Michigan. Information from the 1960 United States Census reports was used to obtain a demographic description of the city.[11] The predominance of middle-middle and upper-middle class families was the main reason for the selection of East Lansing for this research.

East Lansing, a suburb of Lansing, is located in south central Michigan, in the northwest corner of Ingham county, and it is the home of Michigan State University. Since more than twenty per cent of the population of East Lansing is enrolled in college, it can be functionally classified as an "education" city.[12] In 1960 there

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[11]All of the statistical data discussed in this section was abstracted from U. S. Bureau of Census, Michigan General Population Characteristics, 1960 (Washington: Government Printing Office, 1960).

[12]Grace Kneedler, "Functional Types of Cities," p. 4 (mimeographed).

were 30, 198 residents in East Lansing, inclusive of the college students.

The population of East Lansing is highly educated. Persons of twenty-five years and older have a median of fifteen and eight-tenths years of formal education, and eighty-nine per cent of this population has completed four years of high school.

The residents of East Lansing are young and mobile. The percentage of residents who moved into their present house in East Lansing since 1958 is fifty and seven-tenths per cent. The median age is twenty-two and two-tenths years in comparison to a median of twenty-eight and three-tenths years for the state of Michigan. The college element may have some effect upon this figure.

Economically the incomes in East Lansing are higher than those of the state as a whole. The median East Lansing income is $7, 152 while the median for the state is $6, 256. Thirty-one and seven-tenths of the population of East Lansing have incomes of $10, 000 and over.

The industrial composition of East Lansing includes seven per cent in manufacturing industries and seventy-one and nine-tenths per cent in white collar occupations. Working women also play a significant part in the labor force. Of the married women with husbands present, thirty-nine and nine-tenths per cent are employed. Of this percentage twenty-six and three-tenths per cent have children under six years of age. This figure may be a factor which influences the large nursery school enrollment in East Lansing. It also may be a figure which is influenced by the predominance of an educated population.

Selection and Description of Sample

Three factors were considered in the selection of the sample--social class, age, and family composition.

Social Class

Since many students of stratification hold that occupational status is a major, if not the prime element in social class status, this variable was employed in this study as an indicator of social class status. The relative importance of occupational position in the general stratification of American society has been vividly expressed by Anderson and Davidson:

> The occupation one follows . . . assigns the individual to a particular place in society, which can be changed only by most exceptional circumstances. It has much to do with determining the location and kind of residence of the family, and thereby the schooling, playmates, social contact and leisure-time activities of its various members. . . . It forms the range of his conversation and intellectual interest, fastens him upon habits of dress and conduct, and defines the circle of his friends and acquaintances, who in turn have a powerful effect on his thoughts and activities.[13]

For this study occupational status of the father was used as a criterion for evaluating whether or not the child's social class status was at least middle class. The father's occupation was obtained from a background information questionnaire (see Appendix B).

It was decided not to scale the occupations of the fathers by using such measurement devices as Warner's seven point occupational status index,[14] North-Hatt occupational categories,[15] or Alba Edwards

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[13]D. Anderson and P. E. Davidson, Ballots and the Democratic Class Struggle (Palo Alto: Stanford University Press, 1943), p. 82.

[14]W. Lloyd Warner, Marchia Meeker and Kenneth Eells, Social Class in America (New York: Harper and Row, 1960), pp. 140-141.

[15]C. C. North and P. H. Hatt, "Jobs and Occupations: A Popular Evaluation" in R. Bendix and S. M. Lipsit (Eds.) Class Status and Power (Glencoe, Illinois: The Free Press, 1953), pp. 411-426.

social-economic groups.[16] This decision was based upon the fact that there was no wide range in the fathers' occupational statuses. Rather, the entire population fell within the 1-3 ratings of Warner's Revised Scale for Rating Occupation. In light of these findings the fathers' occupations were categorized and summarized according to types of professions listed in Table 2.

Initially the researcher did not use any children of university students. However, this consideration was relaxed due to the difficulty in obtaining subjects in the thirty to forty month age range. The selected student families were ones in which the father was doing graduate or advanced study.

Age

For the purposes of this investigation the aim was to obtain an adequate number of representatives of certain preschool age groups in order that statistical comparisons might be made. Specifically, in the selection of the sample, the goal was to obtain adequate representation by age and sex. Hence a sample of 120 children, sixty boys and sixty girls, between the ages of two-and-one-half and five years was chosen. This age range was chosen for two reasons; first, by the age of two-and-one-half years the child has a sufficient verbal capacity for making choices in an interview situation. Secondly, by the time the child enters elementary school, five years of age, he is able to designate the sex appropriateness of male and female task and appearance items.

In order to make comparisons as to the child's age and sex in terms of his awareness of the appropriateness of sex-linked items, the age range of thirty to sixty months was sub-divided into three categories: (1) thirty to forty months, (2) forty-one to fifty months,

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[16]Alba M. Edwards, Alphabetical Index of Occupations (Washington: United States Government Printing Office, 1937).

Table 2. Distribution of Sample Population by Father's Occupation

Father's Occupation	Number of Fathers
University faculty: Full professors, associate professors, assistant professors, instructors	66
Graduate students: Graduate fellow, full time graduate student	7
Other professionals: Doctors, lawyers, dentists, engineers, high school teachers	10
Business: Regional managers of business firms, salesman of real estate and insurance, accountants, technicians, contractors	27
No response	3
TOTAL	113

(3) fifty-one to sixty months. Within each of these subdivisions there were twenty boys and twenty girls.

Family Composition

For this study it was decided to select children from complete families only, i.e., intact families in which both parents were present in the home. Originally the researcher planned to select children with no siblings. However, this criterion could not be maintained for it presented too great a limitation in terms of obtaining the desired sample size.

The Sample

The subjects for this investigation were selected from nursery schools in East Lansing, Michigan. An important factor which guided the selection of the sample from East Lansing nursery schools was the attempt to obtain children of middle-middle and upper-middle social class families.

Of the 120 children in the sample, fifty-two were interviewed at the Michigan State University Laboratory Preschool, forty-two at Quonset Cooperative Nursery, four at Lutz Day Care Nursery, and seven at Spartan Nursery. Each of these nursery schools catered to the professionals and acamedicians of the community.

There was a very small enrollment for the thirty to forty month age groups in the nursery schools. In order to obtain the desired number of children for this category it was necessary to contact individual homes in East Lansing. Hence, fifteen of the 120 interviews were done in the homes of the subjects.

From the records at the nursery schools addresses and telephone numbers of the interviewee's parents were obtained. Questionnaires were originally sent to some of the parents to secure further

information pertaining to age and education of the parents, age and sex of siblings, father's occupation, and others living in the home (see Appendix B). Since only thirty-three out of sixty-eight questionnaires were returned, it was decided to telephone the remaining parents to secure the desired background information. For the interviews which were completed in the home, the background information was obtained by having the mother complete the questionnaire while her child was being interviewed. This also served the purpose of keeping the mother occupied and thus avoided her becoming directly involved with the interview. It was felt that this eliminated a possible source of distraction and inhibition.

An analysis of the background information questionnaire shows that the total number of families in the sample was 113. Two of these families had moved to other areas before the questionnaire was sent so no background information was obtained. Seven families were included from which two children were interviewed. Thus there were a total of 111 families from which background information was secured.

In considering the age distribution of the parents (see Table 3) it is noted that at least half of the fathers and half of the mothers were between the ages of thirty-one and forty years. This finding seems quite plausible since these were parents of preschool children. None of the parents were younger than twenty years of age.

In terms of family composition, it is noted in Table 4 that seventy-one and two-tenths per cent of the subjects had no more than two siblings. Also, for this sample population one-child families were as rare as families in which there were four or more children, i.e., fourteen and four-tenths per cent of the families had an only child and fourteen and four-tenths per cent of the families had four or more children.

Table 3. Age Distribution of the Parents of the Children Interviewed

Age Category	Number of Fathers	Number of Mothers	Totals
20 - 30 years	20	38	58
31 - 40 years	72	66	138
41 - 50 years	18	7	25
51 - 60 years	1	0	1
Totals	111	111	222

Table 4. Distribution of Sample by Number of Siblings of Children Interviewed

Number of Siblings	Number of Interviewees	Percent of Interviewees
Only child	17	14.4%
One sibling	43	36.45%
Two siblings	41	34.75%
Three or more siblings	17	14.4%
Totals	118	100.0%

Administration of the Instrument

The instrument was administered to 120 two-and-one-half to five year-old boys and girls at the Michigan State University Laboratory Preschool, Quonset Cooperative Nursery, Lutz Day Care Nursery, Spartan Nursery, and at the homes of the subjects. A co-worker accompanied the writer to record the responses of the children. The interviews ranged in length from ten to fifteen minutes. The length of the interview was dependent upon the age and temperment of the child. As expected, older children were found to be more readily responsive than younger children. Some of the thirty to forty month-old subjects were very shy and it was necessary to spend more time becoming acquainted with them. However, for all of the age groups, once the interview was initiated the attention of the child was maintained. Rapport with the children was generally high. Upon return visits to the nursery schools some of the children expressed a desire to "play the game again."

Method of Analysis

For the analysis of the data a prime aim of this study is to test for the statistical significance of specific hypothesized associations, as well as exploratory associations. The goal is to employ a technique to determine whether or not an association could have conceivably occurred through chance. In order to avoid unnecessary complexities in the analysis of the data, the chi-square test of significance will be used in this investigation. Likewise, the coefficient of contingency (C) will be employed to measure the degree of association.[17]

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[17]The computation of the chi-square and the coefficient of contingency will follow the procedure presented by M. J. Hagood and Price, Statistics for Sociologists (New York: Henry Holt and Company, 1952), pp. 356-378.

For the purposes of this study, a probability of .05 or less is accepted as indicating a significant association or one that is not likely to occur by chance. Listed below are the probability values and qualifying adjectives which will be used throughout this thesis.[18]

(1) When probability is greater than .05 . . . . . "not significant" . . . . . NS

(2) When probability is .05 or less but greater than .01 . . . "moderately significant" . . . . . P .05

(3) When probability is .01 or less but greater than .001 . . . "highly significant" . . . . . P .01

(4) When probability is .001 or less . . . . . "extremely significant" . . . . . P .001

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[18]The last three of these qualifying adjectives were originally used by George W. Snedecor, Statistical Methods: Applied to Experiments in Agriculture and Biology (Ames, Iowa State College Press, 4th edition, 1946), reproduced in M. Hagood and Price, Statistics for Sociologists (New York: Henry Holt and Company, 1952), p. 325.

CHAPTER III

NUMBER AND PATTERN OF ERRORS

The major goal of this study is the exploration of the preschool child's capacity to recognize the sex appropriateness of adult appearance and task items. In order to obtain an overall perspective, the general pattern of errors will be examined first. For present purposes, the term error response denotes the incorrect sex designation of an item in terms of the final categorization of appropriateness as originally discussed in the development of the instrument.[1]

Table 5 shows the total number of error responses for each of the four categories--female appearance items, female task items, male appearance items, and male task items. It can be seen that the most error responses were made on the male task and appearance items--263 and 256 errors respectively. In sharp contrast, 197 errors were made on the female task items, and as few as 103 errors were made on the female appearance items. Likewise, as many as sixty-six children made no errors on the female appearance items, and forty-two made no errors on the female task items. Contrary to this, only twenty children made no errors on the male appearance items, and thirty made no errors on the male task items.

This finding seems to indicate that the preschool child is more able to recognize the sex appropriateness of female items.

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[1]See Chapter II for a discussion of the development of the instrument.

Table 5. Total Error Responses of the Children Interviewed on the Sex Appropriateness of Male and Female Task and Appearance Items

Female Items				Male Items			
Appearance	No. of Errors	Task	No. of Errors	Appearance	No. of Errors	Task	No. of Errors
Brassiere	2	Iron	1	Necktie	6	Screw driver	10
Lipstick	2	Dustpan	8	Tennis shoes	9	Wrench	11
Hosiery	3	Pot	10	Bow tie	14	Pliers	13
Tennis shoes	6	Wooden spoon	12	Shirt	17	Paint brush	19
Panties	9	Measuring spoon	14	Socks	17	Flashlight	21
Scarf	9	Rolling pin	14	Shorts	19	Clamp	22
Blouse	10	Egg beater	17	Cap	19	Tool box	24
Beach hat	13	Feather duster	27	Belt	27	Garden gloves	32
Sunglasses	13	Peeler	28	Razor	30	Oil can	35
Belt	17	Baster	32	Briefs	45	Paint roller	37
Comb	19	Spatula	34	Handkerchief	53	Ruler	39
Totals	103		197		256		263

Apparently for this sample of children the female task and appearance items are more readily perceived as to their sex appropriateness.

In terms of error responses on individual task and appearance items, only one error response was made on the female iron, two error responses on the brassiere and lipstick, and three error responses on the hosiery. In contrast, there were no male task or appearance items on which there were made as correspondingly few errors. Furthermore, of all the items in the instrument, the highest number of errors were made on the male handkerchief and briefs--fifty-three and forty-five errors respectively.

This finding indicates that for this sample of children the male items are not perceived as being as distinctly male as the female items are perceived as being distinctly female. There appears to be a minimizing of sexual differences in terms of the appropriateness of the male items, whereas the female items such as the brassiere, lipstick and hosiery are strictly considered feminine. Perhaps a factor to consider is that there are no male items which are as distinctly masculine as the female items are distinctly feminine. A father would never use a lipstick, a brassiere or hosiery, but mother might use underwear which looks similar to men's briefs, or she might use a razor, a handkerchief, or wear a shirt. This may indicate that there is a tendency in modern day American society toward the minimizing of apparent sexual differencies. As evidenced by what is on the market in women's clothing and what is being featured in fashion magazines, women are becoming more casual and tailored in their appearance. We no longer adhere to the Victorian image of an ultra-feminine woman, ostentatiously displaying wealth, status, and uselessness. Hence, there is some "blurring" in terms of what is considered feminine and what is

considered masculine. The dichotomy between the sexes in terms of appearance and task is becoming less pronounced.

Association of Age and Sex and Number of Error Responses

What effect does age and sex have on the number of error responses? As stated in the first broad hypothesis[2] this study aims to test the association of age and the child's recognition of the appropriateness of adult sex-linked items. Furthermore, one of the goals of this study is to explore the association of error responses and other variables. Hence, this section will be devoted to the association of age and sex and number of error responses.

In the description of the sample it was established that for this investigation the two-and-one-half to five-year-old age group would be subdivided into three groups--thirty to forty-month olds, forty-one to fifty-month-olds, and fifty-one to sixty-month-olds. Within each of these groups there were twenty boys and twenty girls. This facilitated the investigation of the association of age and sex and the number of error responses.

In order to test for the association of age and sex and number of error responses on the sex-linked items, categories of high, medium, and low number of error responses were established. The criterion for establishing these categories was the equalization of the number of children into three divisions of error responses. The categories and their corresponding number of errors are listed below.

Low number of error responses . . . . . 0-4 error responses
Median number of error responses . . . 5-8 error responses
High number of error responses . . . . . 9-28 error responses

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[2]For a discussion of the hypothesis see Chapter I.

The association of age and sex with high, medium, and low number of error responses is contained in Table 6 below.

Table 6. Association of Age and Sex and Number of Error Responses on the Sex-Linked Items

Number of Error Responses	Boys			Girls			Totals
	30-40 mo. n=20	41-50 mo. n=20	51-60 mo. n=20	30-40 mo. n=20	41-50 mo. n=20	51-60 mo. n=20	
High Error Responses	15	4	0	13	4	0	36
Medium Error Responses	3	11	7	6	8	2	37
Low Error Responses	2	5	13	1	8	18	47
Totals	20	20	20	20	20	20	120
X^2 68.845			P .001			C .603	

An extremely significant association (P .001) exists between age and sex and number of error responses. Also, the data show that there is a considerable degree of association (C .603), with the fifty-one to sixty-month-old boys and girls making fewer errors than the forty-one to fifty-month-olds, and the latter making fewer errors than the thirty to forty-month-olds.

The association of age of boys and number of error responses is contained in Table 7 below.

Table 7. Association of Age of Boys and Number of Error Responses on the Sex-Linked Items

Number of Error Responses	Boys 30-40 mo. n=20	41-50 mo. n=20	51-60 mo. n=20	Totals
High Error Responses	15	4	0	19
Medium Error Responses	3	11	7	21
Low Error Responses	2	5	13	2
Totals	20	20	20	60
X^2 33.388		P .001		C .599

An extremely significant association (P .001) is in evidence between age and the number of error responses of the boys. Likewise, Table 8 below shows that there is an extremely significant association (P .001) between the age of the girls and the number of error responses.

Hence, when the boys and girls are considered separately, there still exists an extremely significant association between age and high, medium, and low number of error responses.

It can be seen from Table 9 below that there is no significant association (NS) between sex and number of error responses on the sex-linked items. When the boys and girls are associated with number of error responses without controlling for age, there is no significant finding. In contrast, Table 10 below shows that there is an extremely significant association (P .001) between age and number of error responses without controlling for sex.

Table 8. Association of Age of Girls and Number of Error Responses on the Sex-Linked Items

Number of Error Responses	Girls 30-40 mo. n=20	Girls 41-50 mo. n=20	Girls 51-60 mo. n=20	Totals
High Error Responses	13	4	0	36
Medium Error Responses	6	8	2	37
Low Error Responses	1	8	18	47
Totals	20	20	20	60
X^2 37.201		P .001		C .62

Table 9. Association of Sex and Number of Error Responses on Sex-Linked Items

Number of Error Responses	Boys n=60	Girls n=60	Totals
High Error Responses	19	17	36
Medium Error Responses	21	16	37
Low Error Responses	20	27	47
Totals	60	60	120
		NS	

Table 10. Association of Age and Number of Error Responses on Sex-Linked Items

Number of Error Responses	30-40 mo. n=40	41-50 mo. n=40	51-60 mo. n=40	Totals
High Error Responses	28	8	0	36
Medium Error Responses	9	19	9	37
Low Error Responses	3	13	31	47
Totals	40	40	40	120
X^2 65.73		P .001		C .595

These findings indicate that age is the crucial variable in terms of the child's capacity to discern the appropriateness of the sex-linked items. In all cases where age was associated with high, medium, and low number of error responses there was a highly significant association. Hence, the hypothesis that the child's age is directly related to the accuracy of his discernment of the appropriateness of male and female task and appearance items can be accepted. Also, subhypothesis A can be substantiated, for the older the child the fewer will be the number of errors he will make in judging the appropriateness of appearance and task sex-linked objects.

Pattern of Errors

What effect does age and sex have on the pattern of errors? Tables 11 through 13 below show that there is no significant association (NS) between age and sex and error responses on each of the

four categories of male and female task and appearance items. It can be seen from Table 11 that the distribution of error responses among the three age groups of both boys and girls on the four separate categories of items was randomly scattered.

Table 11. Association of Age and Sex with Error Responses on Male and Female Task and Appearance Items

Sex-Linked Items	No. of Error Responses Boys 30-40 mo. n=20	41-50 mo. n=20	51-60 mo. n=20	No. of Error Responses Girls 30-40 mo. n=20	41-50 mo. n=20	51-60 mo. n=20	Totals
Female Appearance	44	19	7	23	7	3	103
Female Task	51	32	22	51	30	11	197
Male Appearance	66	44	24	60	39	23	256
Male Task	83	31	20	68	42	19	263
Totals	244	126	73	202	118	56	819
			NS				

Likewise, Tables 12 and 13 show that even when the three age groups of boys and girls were considered separately there was still a randomly scattered distribution of error responses.

Table 12. Association of Age of Boys and Error Responses on Male and Female Task and Appearance Items

	Number of Boys' Error Responses			
Sex-Linked Items	30-40 mo. n=20	41-50 mo. n=20	51-60 mo. n=20	Totals
Female Appearance	44	19	7	70
Female Task	51	32	22	105
Male Appearance	66	44	24	134
Male Task	83	31	20	134
Totals	244	126	73	443
		NS		

Table 13. Association of Age or Girls and Error Responses on Male and Female Task and Appearance Items

	Number of Girls' Error Responses			
Sex-Linked Items	30-40 mo. n=20	41-50 mo. n=20	51-60 mo. n=20	Totals
Female Appearance	23	7	3	33
Female Task	51	30	11	92
Male Appearance	60	39	23	122
Male Task	68	42	19	129
Totals	202	118	56	376
		NS		

In contrast Table 14 below shows that a moderately significant association (P .05) exists between the sex of the child and the number of error responses on the categories of male and female task and appearance items. It was found that the boys made fewer errors than were expected by chance alone on the female task, male appearance, and male task items, while the girls made more errors than expected on these items. The degree of association between sex and error responses on the four categories of items was fairly low (C .27).

Table 14. Association of Sex and Error Responses on Male and Female Task and Appearance Items

	Number of Error Responses		
Sex-Linked Items	Boys n=60	Girls n=60	Totals
Female Appearance	70	33	103
Female Task	105	92	197
Male Appearance	134	122	256
Male Task	134	129	263
Totals	443	376	819
X^2 9.419	P .05		C .27

These findings indicate that for this sample population sex is a significant variable in terms of the error responses on the categories of male and female task and appearance items. Age was not found to be significantly associated with error responses on the four categories of male and female items.

Table 15 below shows that there was no significant association (NS) between age and greater recognition of the sex appropriateness of task items. The hypothesis that the older the child the greater

will be his capacity to recognize task items in the discernment of sex was not substantiated.

Table 15. Association of Age and Error Responses on Task Items and Appearance Items

	Number of Error Responses			
Sex-Linked Items	30-40 mo. n=40	41-50 mo. n=40	51-60 mo. n=40	Totals
Male and Female Task Items	253	136	71	460
Male and Female Appearance Items	193	109	57	359
Totals	446	245	128	819
		NS		

An analysis of the association of sex and pattern of errors shows that there is an extremely significant association (P .001) between sex and error responses on the female appearance and female task items, as shown in Table 16 below. For this sample the boys made fewer errors than expected in terms of statistical probability on the female task items, while the girls made more errors than expected on these items. Also, the girls made fewer errors than expected on the female appearance items. These findings indicate that the boys of this sample are more accurate in their evaluation of the sex appropriateness of the female task items as opposed to the female appearance items. Conversely, the girls are more accurate in evaluating the sex appropriateness of female appearance items rather than female task items.

Table 16. Association of Sex and Error Responses on Female Appearance and Female Task Items

Sex-Linked Items	Number of Error Responses: Boys n=60	Girls n=60	Totals
Female Appearance Items	70	33	103
Female Task Items	105	92	197
Totals	175	125	300
X^2 15.898	P .001		C .34

In contrast, as shown in Table 17 below, there was no significant association (NS) found between sex and error responses on the male appearance and male task items. For this sample population, the errors by the boys and girls on the male items were randomly scattered in such a way that there was no significant association.

Table 17. Association of Sex and Error Responses on Male Appearance and Male Task Items

Sex-Linked Items	Number of Error Responses: Boys n=60	Girls n=60	Totals
Male Appearance Items	134	122	256
Male Task Items	134	129	263
Totals	268	251	519
	NS		

As shown in Table 18 below, a highly significant association (P .01) exists between sex and error responses on the female appearance and male appearance items. In terms of statistical probability the boys of this sample made fewer errors than expected on the male appearance items, while the girls made fewer errors than expected on the female appearance items. Conversely, the boys made more errors than expected on the female appearance items and the girls made more errors than expected on the male appearance items. Hence, for this sample population, the boys and girls made fewer errors than expected on the same-sex appearance items.

Table 18. Association of Sex and Error Responses on Female Appearance and Male Appearance Items

	Number of Error Responses		
Sex-Linked Items	Boys n=60	Girls n=60	Totals
Female Appearance Items	70	33	103
Male Appearance Items	134	122	256
Totals	204	155	359
X^2 7.339	P .01		C .24

It was also found that there was no significant association (NS) between sex and error responses on the female task and male task items, as shown in Table 19 below. For the boys and girls of this sample, the error responses on the female task and male task items were randomly scattered. This finding indicates that there was no

significant difference between the boys and girls of this sample in the accurateness of their sex designation of the male and female task items.

Table 19. Association of Sex and Error Responses on Female Task and Male Task Items

	Number of Error Responses		
Sex-Linked Items	Boys n=60	Girls n=60	Totals
Female Task Items	105	92	197
Male Task Items	134	129	263
Totals	239	221	460
	NS		

The finding that there was a highly significant association between sex and error responses on the female appearance items and the male appearance items, but no significant association between sex and error responses on the female task items and the male task items indicates that in terms of statistical probability the children of this sample have a greater capacity for designating the sex appropriateness of same-sex appearance items than same-sex task items. Apparently for this age group of two and one-half to five years sex distinctions are made more accurately in terms of same-sex appearance items. Apparently further socialization must take place in order for the child to develop a greater capacity for discerning the sex appropriateness of male and female task items.

Table 20 below shows that there is no significant association between sex and error responses on male and female task items and male and female appearance items. For this sample population it appears that the boys are no more accurate than the girls and vice versa in designating the sex appropriateness of the male and female task items and the male and female appearance items.

Table 20. Association of Sex and Error Responses on Male and Female Task Items and Male and Female Appearance Items

	Number of Error Responses		
Sex-Linked Items	Boys n=60	Girls n=60	Totals
Male and Female Appearance Items	204	155	359
Male and Female Task Items	239	221	460
Totals	443	376	819
	NS		

The finding that there was a significant association between sex and error responses on the female task and female appearance items may be a result of our cultural promotion of what is considered masculine and what is considered feminine. Girls are more oriented towards clothing and appearance in our culture--this is a feminine domain. For the boys, masculine sex-typing is considered appropriate in terms of work and task activities. This finding seems to corroborate Pitcher's conclusion that girls are more aware of femininess with reference to clothing--its detail, color, and

suitability--than are boys.[1]

In contrast, there was no significant association found between sex and error responses on the male appearance and male task items. Likewise, no significant association was found between age and the child's capacity to recognize the sex appropriateness of task items versus appearance items. A factor which may be related to these findings is that the preschool child is more involved with feminine oriented activities for he spends most of his time in a woman dominated environment. Also, we are in the midst of a "do-it-yourself" age, and the preschool child continuously sees his mother use all sorts of tools and objects which are also considered appropriate for father. Hence, it seems feasible that the child of two and one-half to five years of age may be quite capable of discerning the sex appropriateness of female task and female appearance items but not male task and appearance items. In light of these findings it would seem appropriate to choose an older age group to see whether or not differences will exist in the child's capacity for recognizing the appropriateness of male items, and task items versus appearance items. It would be interesting to follow the children of this sample into the first year of elementary school in order to see if differences in the pattern of errors will become evident.

Summary

The principal consideration of this chapter was the statistical testing of specific hypotheses proposed in Chapter I concerning the association of age and the preschool child's capacity to recognize the sex appropriateness of adult task and appearance items. Also considered in this chapter was the association of sex and number and

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[1]Pitcher, op. cit., p. 91.

pattern of errors. The findings may be summarized as follows:

(1) The child's age is directly related to the accuracy of his discernment of the appropriateness of male and female task and appearance items. The older the child the fewer are the number of errors he makes in judging the appropriateness of appearance and task sex-linked objects.

(2) For the children of this sample sex alone is not significantly associated with number of error responses on the sex-linked items.

(3) Age was not found to be significantly associated with the pattern of error responses on the four categories of sex-linked items. Although the older boys and girls made fewer errors, the errors were randomly distributed among the male and female task and appearance items. Thus there was no association between the kinds of errors the children made and their age.

(4) A moderately significant association was found between sex and error responses on the four categories of male and female items. In terms of statistical probability, the girls of this sample are more accurate in their sex designation of male and female appearance items while the boys are more accurate in their sex designation of male and female task items.

(5) An extremely significant association between sex and error responses on only the female task and female appearance items was in evidence. In terms of statistical probability, the girls of this sample were more accurate in their sex designation of the female appearance items while the boys were more accurate in their sex designation of the female task items.

(6) For these age groups there was no significant association found between age and greater accuracy in the recognition of the sex appropriateness of task items.

(7) Sex was not found to be significantly associated with error responses on the female task and male task items.

(8) When only the error responses on the female appearance items and male appearance items were associated with sex a highly significant association was found. In terms of statistical probability, the boys and girls of this sample make fewer errors than expected in designating the sex appropriateness of same-sex appearance items.

(9) For this age group there was no association found between sex and error responses on the male and female task items and the male and female appearance items.

CHAPTER IV

NUMBER AND PATTERN OF ERRORS AND SIBLING RELATIONSHIPS

In the discussion of the focus of this study it was stated that one of the aims of this investigation is to explore the association of sibling relationships and the child's capacity to discern the sex appropriateness of sex-linked objects. This chapter is devoted to an exploration of the association of number and pattern of errors and sibling relationships. Comparisons were not made in terms of social class since the sample consists of a relatively homogeneous middle-class group.

Association of Sibling Relationships and Number of Errors

As indicated by Brown[1] and Rabban,[2] the presence or absence of siblings of the same and/or opposite sex may have a bearing on differences in children's sex-role preference and sex-role identification. Hence, it is important to ask whether or not the number and pattern of errors of the children of this study are influenced in any pronounced degree by the presence or absence of siblings of the same and/or opposite sex.

The association of number of errors and differences in sibling relationships for both boys and girls is contained in Table 21 and 22,

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[1]Daniel G. Brown, op. cit., pp. 16-18.

[2]Meyer Rabban, op. cit., pp. 120-122.

Appendix A. No statistically significant associations (NS) were found among either the boys or the girls, regardless of whether or not the subjects had no siblings and same-sex siblings in contrast to those with cross-sex siblings. The association of girls' and boys' number of error responses and sibling relationships could not be tested statistically while controlling for age since all the theoretical frequencies were considerably under five. Hence, a larger sample size would be necessary to test for this association.

Association of Sibling Relationships and Pattern of Errors

The association of pattern of errors and sibling relationships for both boys and girls is contained in Tables 23 through 31, Appendix A. No statistically significant associations (NS) were found among either the boys or the girls, regardless of whether or not the subjects had siblings of the same sex or the opposite sex. There was no indication that boys with cross-sex siblings were more or less accurate in designating the sex appropriateness of female items. These same findings also hold for the girls of the sample, i.e., a girl with only cross-sex siblings is just as accurate as a girl with same-sex siblings in designating the sex appropriateness of adult female items as adult male items.

From these findings no assumption can be made in terms of the differential effect sibling relationship has on the child's capacity to recognize the sex appropriateness of adult male and female items.

Summary

The principal consideration of this chapter was the exploration of the association of number and pattern of errors and sibling relationships. It was found that the presence or absence of siblings of the

same and/or opposite sex has no differential effect upon the pattern of errors of the boys and girls of this sample. It was suggested that a larger sample size would be needed to statistically test for the association of girls' and boys' number of error responses and sibling relationships, while controlling for age.

CHAPTER V

SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

Summary

The primary concern of this study was centered upon an exploration of the preschool child's capacity to recognize the sex appropriateness of adult task and appearance items. The number and pattern of errors were examined in terms of the age and sex of the child. Also, the association of number and pattern of errors and sibling relationships were explored. Specific hypotheses which involved the association of the child's age and pattern and number of errors were proposed. An instrument was developed in order to test the proposed hypotheses and to explore the association of sex and sibling relationships and the number and pattern of errors. A questionnaire was also developed in order to obtain certain background information from the parents of the children interviewed. The final instrument was administered to 120 boys and girls between the ages of thirty and sixty months. The findings concerning the association of age and sex and pattern and number of errors may be summarized briefly as follows:

(1) The child's age is directly related to the accuracy of his discernment of the appropriateness of male and female task and appearance items. The older the child the fewer are the number of errors he makes in judging the appropriateness of appearance and task sex-linked objects.

(2) For the children of this sample sex alone is not significantly associated with the number of error responses on the sex-linked items.

(3) Age was not found to be significantly associated with the pattern of error responses on the four categories of sex-linked items. Although the older boys and girls made fewer errors, the errors were randomly distributed among the male and female task and appearance items.

(4) A moderately significant association was found between sex and error responses on the four categories of male and female items. In terms of statistical probability, the girls of this sample are more accurate in their sex designation of male and female appearance items while the boys are more accurate in their sex designation of male and female task items.

(5) An extremely significant association between sex and error responses on only the female task and female appearance items was in evidence. In terms of statistical probability the girls of this sample were more accurate in their sex designation of the female appearance items while the boys were more accurate in their sex designation of the female task items.

(6) For these age groups there was no significant association found between age and greater accuracy in the recognition of the sex appropriateness of task items.

(7) Sex was not found to be significantly associated with error responses on the female task and male task items.

(8) When only the error responses on the female appearance items and male appearance items were associated with sex, a highly significant association was found. In terms

of statistical probability the boys and girls of this sample make fewer errors than expected in designating the sex appropriateness of same-sex appearance items.

(9) For this age group there was no association found between sex and error responses when the male and female task items and the male and female appearance items were combined.

An analysis of the association of number and pattern of errors and sibling relationships demonstrated that for this sample population sibling relationships are not associated with the child's capacity to distinguish the sex appropriateness of adult male and female task and appearance items. The association of number of error responses and sibling relationships could not be tested statistically while controlling for age since all the theoretical frequencies were considerably under five.

Implications

The findings of this study suggest a number of implications. The question arises as to what are some of the cultural factors which shape the behavior of the middle-class preschool child. First, however, it may be worthwhile to present the following brief discussion of the interactionist approach to the self-concept, for application of this theory is basic to this study.

In general terms, the interactionist approach holds that "the individual's conception of himself emerges from social interaction, and, in turn, guides or influences his behavior."[1] The child perceives the actual responses of those around him in such a way that their behavior influences his. In turn, the behavior of the child influences

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[1]John W. Kinch, "A Formalized Theory of the Self-Concept," American Journal of Sociology, LXVIII (January, 1963), p. 481.

the actual behavior of others toward him. Thus the theory of the formation of the self is circular. The individual's self-concept, which is based upon his perception of the way others are responding to him, functions to direct his behavior. Such factors as the individual's familiarity with the situation, his past experience with social situations, and his familiarity with others determine the accuracy with which the individual perceives the actual responses of others. In the socialization of the child the development of the self-concept is a continuous process of experience and interaction which hang together and influence the child's modes of expression.

To return to the primary question, why is it that the middle-class child's age is not a crucial variable with respect to the pattern of errors he makes on the four categories of sex-linked items. The findings of this study concur with the observations that middle-class preschool children are constantly involved in a feminine world. This is coupled with the fact that in modern day America there is a tendency for the mother to perform functions which may be considered part of the masculine role by a larger segment of the society. Likewise, many masculine functions are relatively abstruse to these children due to the fact that the middle-class father spends most of his day working away from home. Hence, the mother appears to be the more influential role model in the lives of middle-class preschool children.

It has been pointed out by Rabban that in the middle-class family both the mother and the father are relatively less concerned about early and clear-cut definitions of sex appropriate behavior.[1] For lower-class children ". . . the rigidity of pattern, the models of parents and the attitudes of peers are all of a piece."[2] For the

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[1]Rabban, op. cit., p. 145.

[2]Ibid.

middle-class child the peers have a profound impact upon his behavior. This would seem to corroborate the finding that the seven to eleven-year-old near peer judges possessed the capacity to clearly associate the sex appropriateness of the sex-linked items, while the preschool children of this sample population showed some confusion with respect to the sex appropriateness of the male and female items. These findings imply that there appears to be discontinuity in the middle class child's socialization. Apparently during the preschool years the middle-class child's recognition of appropriate adult sex-role behavior may be less accurate than that of lower social classes. Two years after entering school the child develops a more clear-cut notion of adult sex-role distinctions.

The data concerning the error responses of the boys and girls of this sample were analyzed primarily in terms of frequency expectations. If this type of analysis is put aside momentarily, a re-examination of the tables shows that the boys actually made a greater number of errors on all four categories of sex-linked items. Furthermore, the greatest difference in the number of error responses of the boys and girls was found on the female appearance items, with the boys making over twice as many error responses as the girls in this category. These findings concur with numerous other studies which indicate that during the formative years girls are superior to boys in verbal ability, intelligence, and maturity. At the preschool age level girls are actually more aware of the cultural definitions of what is considered feminine than the boys are aware of what is considered masculine. Thus the data imply that during the first and second year of elementary school differences in the capacity of boys and girls to discern the sex appropriateness of adult sex-linked items sharply diminish.

Recommendations

The major purpose of this study was to determine how age, sex, and sibling relationships influence the preschool child's capacity to determine the sex appropriateness of adult task and appearance items. As a result of the findings from this exploratory study, the following recommendations are made:

(1) Replication of this study with children representative of different social classes, different ethnic groups, and different racial groups.

(2) Replication of this study including children under thirty months of age.

(3) Replication of this study with a larger sample population in order to test more rigorously for the association of sibling relationships and number of error responses.

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APPENDIX A

TABLES REFERRED TO BUT NOT INCLUDED IN TEXT

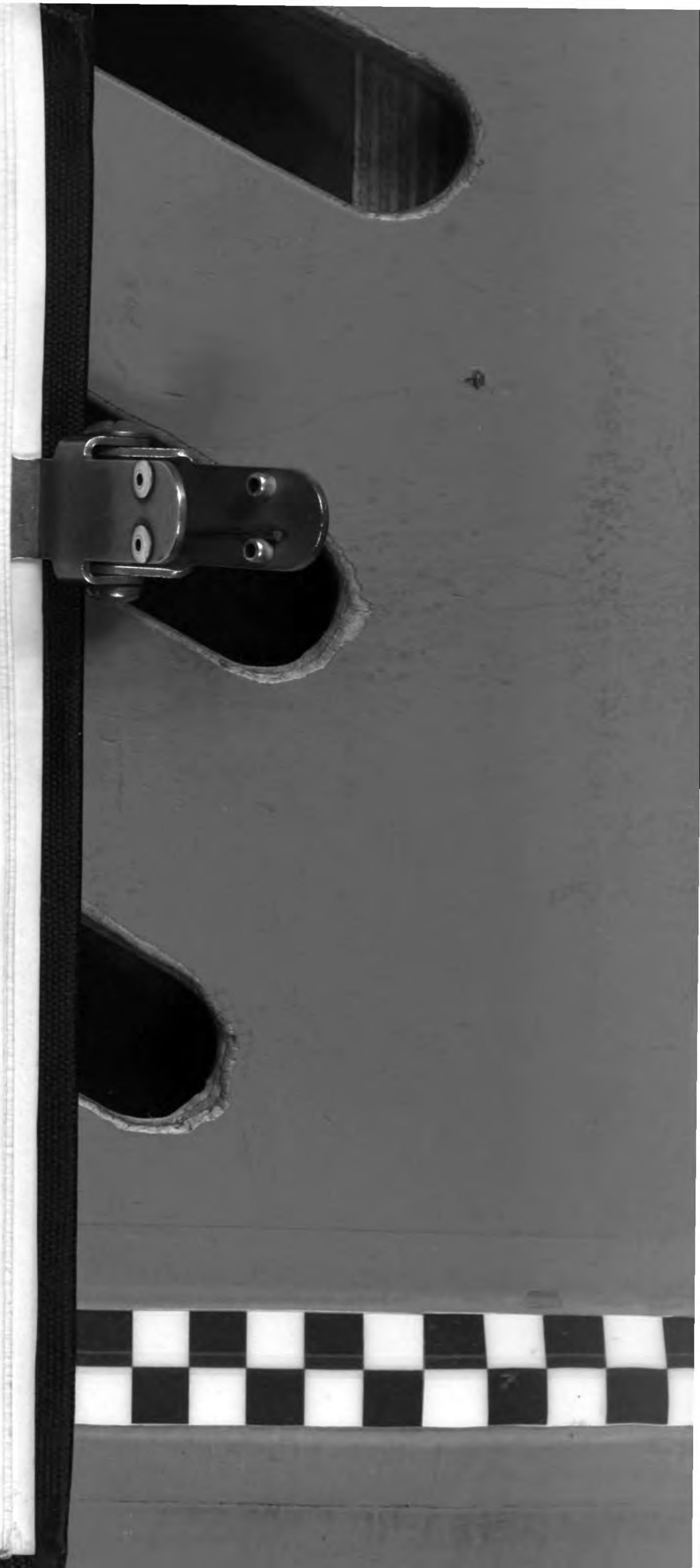


Table 21. Association of Girls' Number of Error Responses and Sibling Relationships

Number of Error Responses	Only Child Girls and Girls with Same-Sex Siblings n=31	Girls with Opposite-Sex Siblings n=29	Totals
High Error Responses	8	9	17
Medium Error Responses	9	7	16
Low Error Responses	14	13	27
Totals	31	29	60

NS

Table 22. Association of Boys' Number of Error Responses and Sibling Relationships

Number of Error Responses	Only Child Boys and Boys with Same-Sex Siblings n=24	Boys with Opposite-Sex Siblings n=34	Totals
High Error Responses	8	11	19
Medium Error Responses	7	13	20
Low Error Responses	9	10	19
Totals	24	34	58

NS

Table 23. Association of Girls' Error Responses on Male and Female Task and Appearance Items and Sibling Relationships

Sex-Linked Items	Number of Error Responses: Only Child Girls and Girls with Same-Sex Siblings n=31	Girls with Opposite-Sex Siblings n=29	Totals
Female Appearance	21	13	34
Female Task	53	40	93
Male Appearance	62	62	124
Male Task	58	73	131
Totals	194	188	382
	NS		

Table 24. Association of Boys' Error Responses on Male and Female Task and Appearance Items and Sibling Relationships

Sex-Linked Items	Number of Error Responses: Only Child Boys and Boys with Same-Sex Siblings n=24	Boys with Opposite-Sex Siblings n=34	Totals
Female Appearance	23	42	65
Female Task	42	60	102
Male Appearance	60	70	130
Male Task	59	74	133
Totals	184	246	430
	NS		

Table 25. Association of Girls' Error Responses on Female Task and Appearance Items and Sibling Relationships

	Number of Error Responses		
Sex-Linked Items	Only Child Girls and Girls with Same-Sex Siblings n=31	Girls with Opposite-Sex Siblings n=29	Totals
Female Appearance	21	13	34
Female Task	53	40	93
Totals	74	53	127
	NS		

Table 26. Association of Boys' Error Responses on Female Task and Appearance Items and Sibling Relationships

	Number of Error Responses		
Sex-Linked Items	Only Child Boys and Boys with Same-Sex Siblings n=24	Boys with Opposite-Sex Siblings n=34	Totals
Female Appearance	23	42	65
Female Task	42	60	102
Totals	65	102	167
	NS		

Table 27. Association of Girls' Error Responses on Male Task and Appearance Items and Sibling Relationships

	Number of Error Responses		
Sex-Linked Items	Only Child Girls and Girls with Same-Sex Siblings n=31	Girls with Opposite-Sex Siblings n=29	Totals
Male Appearance	62	62	124
Male Task	58	73	131
Totals	120	135	255
	NS		

Table 28. Association of Boys' Error Responses on Male Task and Appearance Items and Sibling Relationships

	Number of Error Responses		
Sex-Linked Items	Only Child Boys and Boys with Same-Sex Siblings n=24	Boys with Opposite-Sex Siblings n=34	Totals
Male Appearance	60	70	130
Male Task	59	74	133
Totals	119	144	263
	NS		

Table 29. Association of Girls' Error Responses on Male and Female Task Items and Male and Female Appearance Items and Sibling Relationships

	Number of Error Responses		
Sex-Linked Items	Only Child Girls and Girls with Same-Sex Siblings n=31	Girls with Opposite-Sex Siblings n=29	Totals
Male and Female Task Items	111	113	224
Male and Female Appearance Items	83	76	159
Totals	194	189	383
	NS		

Table 30. Association of Boys' Error Responses on Male and Female Task Items and Male and Female Appearance Items and Sibling Relationships

	Number of Error Responses		
Sex-Linked Items	Only Child Boys and Boys with Same-Sex Siblings n=24	Boys with Opposite-Sex Siblings n=34	Totals
Male and Female Task Items	101	134	235
Male and Female Appearance Items	83	112	195
Totals	184	246	430
	NS		

Table 31. Association of Girls' Error Responses on Male Appearance and Female Appearance Items and Sibling Relationships

	Number of Error Responses		
Sex-Linked Items	Only Child Girls and Girls with Same-Sex Siblings n=31	Girls with Opposite-Sex Siblings n=29	Totals
Male Appearance	62	62	124
Female Appearance	21	13	34
Totals	83	75	158
	NS		

Table 32. Association of Boys' Error Responses on Male Appearance and Female Appearance Items and Sibling Relationships

	Number of Error Responses		
Sex-Linked Items	Only Child Boys and Boys with Same-Sex Siblings n=24	Boys with Opposite-Sex Siblings n=34	Totals
Male Appearance	60	70	130
Female Appearance	23	42	65
Totals	83	112	195
	NS		

APPENDIX B

BACKGROUND INFORMATION QUESTIONNAIRE

November 29, 1963

Dear Mr. and Mrs.

Presently a research project is being undertaken at Michigan State University concerning children's learning of male and female role differences. At the present time we know very little about the kinds of criteria young children use to determine appropriate sex-role behavior. Although much speculation exists, very little actual research has been done.

In order to obtain reliable data, the researchers request your assistance. It is felt that child rearing practices play a crucial role in this aspect of a child's socialization. Since this is a sensitive area all information will be kept strictly confidential. In the analysis of data no names will be used.

Thank you for your cooperation.

Sincerely,

Arthur Vener
Associate Professor
Department of Sociology and Anthropology

GENERAL INFORMATION

Child's Name _____ Age _____

Parent's Name _____

_____

MOTHER

Age _____

Education _____

FATHER

Age _____

Education _____

Present Occupation _____

_____

SIBLINGS

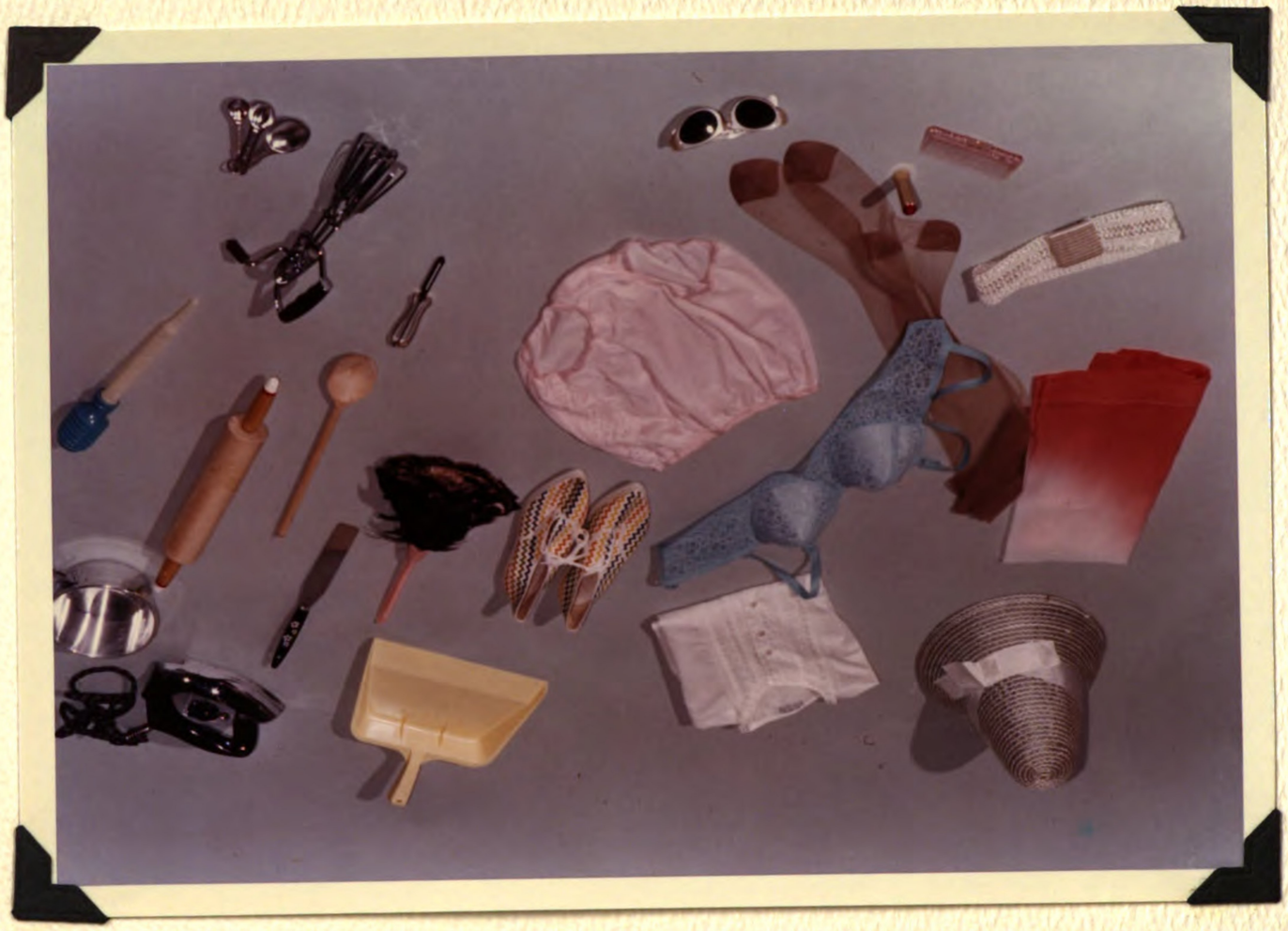
Name	Age	Relationship

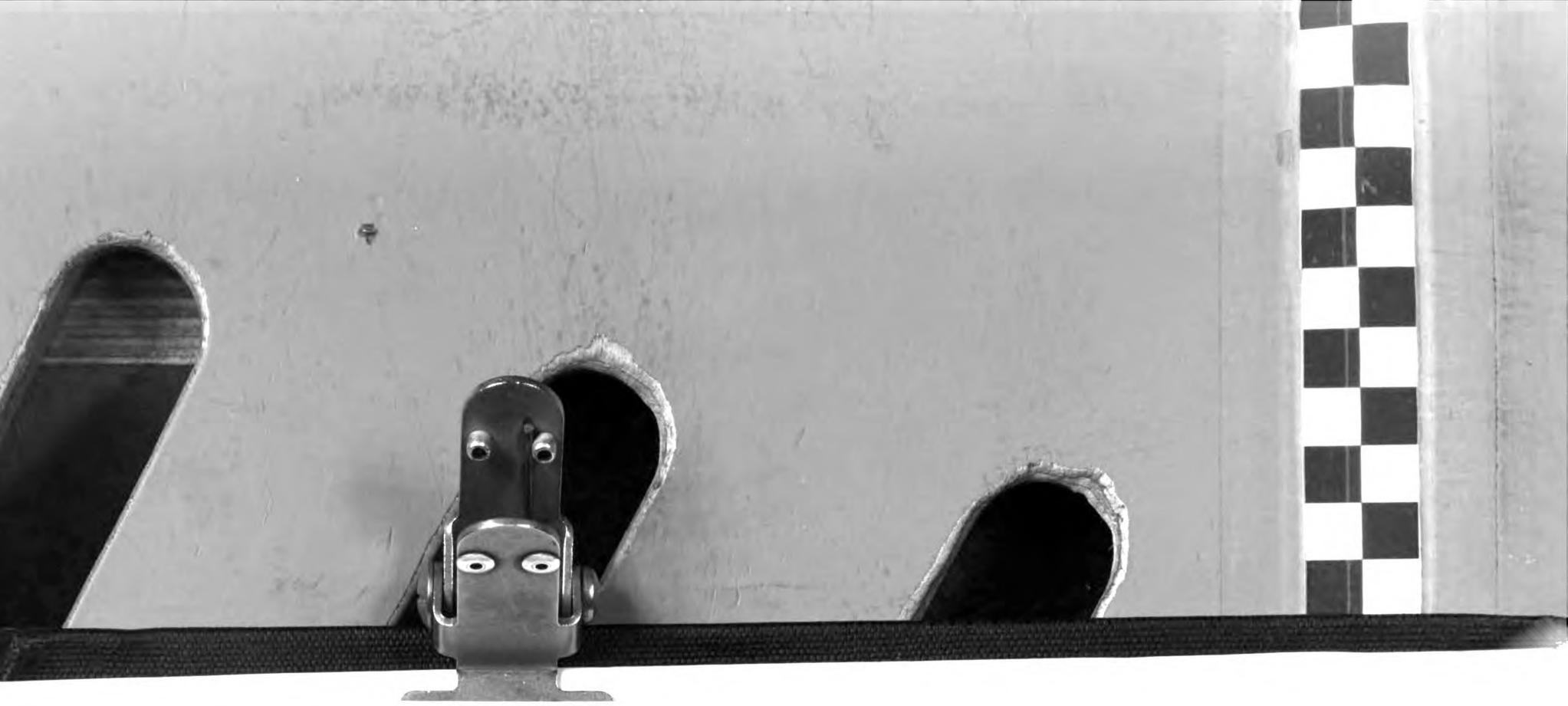
OTHERS LIVING IN THE HOME

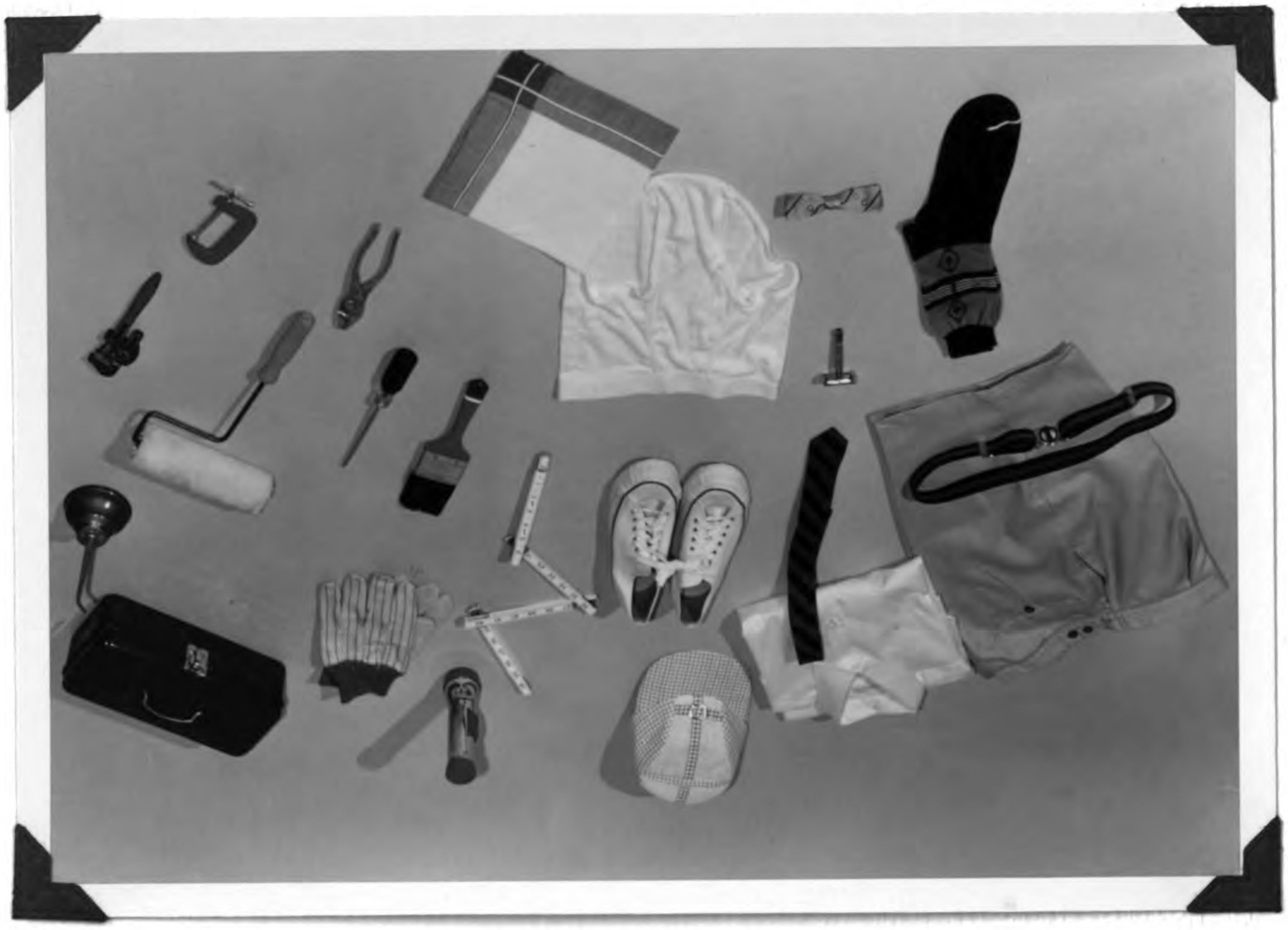
Name	Age	Relationship

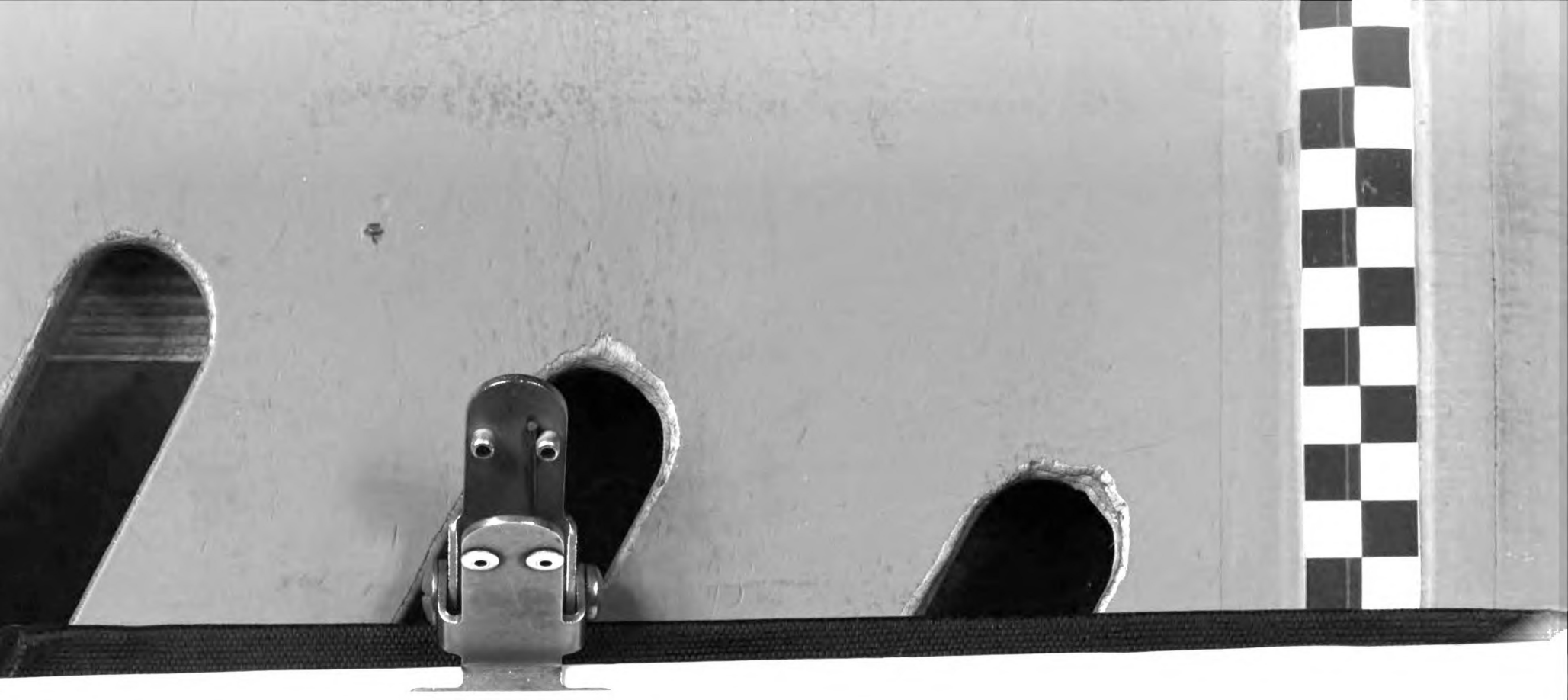
Does your child have a bedroom alone? _____

Does your child have a bed alone? _____









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