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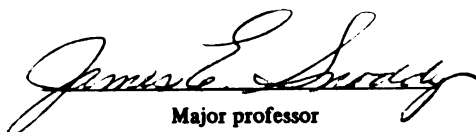
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THE SOCIAL INTERACTION OF  
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PLAY WITH PEERS: A COMPARISON OF  
THE SOCIAL INTERACTION OF  
PRESCHOOL GIRLS AND BOYS

By

E. Salome Green-Merritt

A DISSERTATION

Submitted to  
Michigan State University  
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## ABSTRACT

### PLAY WITH PEERS: A COMPARISON OF THE SOCIAL INTERACTIONS OF PRESCHOOL GIRLS AND BOYS

By

E. Salome Green-Merritt

The subject of this dissertation was the free play of four and five year old children. The problem addressed by the research was: is there a difference between the way that preschool boys interact in play groups and the way that preschool girls interact in play groups?

The research was conducted in a private cooperative nursery school which served predominantly white middle class children. The center had three year old children in one classroom and four to five year old children in another classroom. Children attended school either on Monday, Wednesday and Friday mornings, on Tuesday and Thursday mornings, on Monday, Wednesday and Friday afternoons, or on Tuesday and Thursday afternoons. The population for this investigation was comprised of all the four and five year old children who attended the preschool on

Monday, Wednesday and Friday mornings and those who attended on Monday, Wednesday and Friday afternoons. A total of thirty children were studied, fifteen of whom attended school in the mornings and fifteen of whom attended school in the afternoons.

The children's spontaneous group play with their peers was examined through time sampling. Narrative descriptions of the children's activities during 10-minute time observations were recorded on tape and subsequently transcribed and analyzed. Each child was observed, according to a prearranged list, over a period of five weeks, yielding to a total of 70 minutes of observation per child.

The research sought an answer to the following question: is there a difference in the social interactions of preschool girls and boys in terms of (1) the means they use to get into a play group? (2) the means they use to incorporate other children into existing groups? (3) the way they participate in group play? The Chi-Square Test for homogeneity used for statistical analysis of the data revealed no difference between the interactions of boys and girls in two areas of interest (1) means of getting into a group; (2) means of incorporating others into a group. The data revealed a difference between the way that boys participate in group activities and the way that girls participate in group activities. Eight strategies were categorized for group participation, but the children used

only six. Of the six techniques employed, boys and girls demonstrated no difference in their use of "cooperative sharing". However, there was a significant difference in the way that boys used the other five means and the ways that girls used these five strategies as they participated in group play. Two strategies, "Associative sharing" and "Cooperative asserting" were used more frequently by boys while three techniques, "Associative helping", "Associative asserting" and "Cooperative helping" were used more frequently by girls.

The results of the present research were in accord with previous investigations in two areas of interest. There was agreement in the literature that no difference exists (1) in the way that boys use strategies to get into groups and the ways that girls use strategies to get into groups, (2) in the ways that boys incorporate other children into existing groups and the way that girls incorporate others into existing groups. The present investigation afforded evidence in support of the literature in these areas. There was very little commentary in the literature concerning the ways that boys and girls participate in group play. The evidence suggested that there was no difference in the way that boys participate in group play and the way that girls participate in group play. The present investigation was at variance with such a finding.

Dedicated  
to  
Asa's mother Emma Merritt  
and  
My mother Enid Green

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## CHAPTER I

### INTRODUCTION

The subject of this dissertation is preschoolers' play. The interest lies in discerning differences that may exist between specific behaviors of boys and of girls in a freeplay setting. This investigation is based on the following developmental principles evidenced by research, reported by Almy, Cazden, and Stone.

- A. Almy (1967) finds that preschoolers will interact with their peers.<sup>1</sup>
- B. Cazden (1972) suggests that preschoolers will converse.<sup>2</sup>
- C. Stone (1971) purports that preschoolers will on their own initiative play in groups.<sup>3</sup>

Free or spontaneous play gives the observer of social interaction an advantage because of the absence of adult imposed restrictions. There should then be greater give-and-take since the children are in charge, can create their own realities and adapt their own situations. In a freeplay setting one should be able to see clearly how the social interaction of boys differs from that of girls.

### Background

The subject of play is addressed by scholars of diverse theoretical orientations, all of whom emphasize its importance. Aristotle (1928) feels that play is a necessary activity for children;<sup>4</sup> Rousseau (1763) infers that play is natural to young children who engaged in the activity to release excess energy;<sup>5</sup> Dewey (1915) defines play as activities not consciously performed for the sake of any result beyond themselves.<sup>6</sup> Froebel (1899) regards play as the highest phase of a child's development, the purest and most spiritual aspect of man at this stage.<sup>7</sup> Parten (1932) and Isaacs (1937) both speak of the importance and social nature of play.<sup>8</sup> More recently, Piaget (1962) sees play as a basis of cognitive functioning. His writings suggest that as the young child plays with the objects in his environment, his cognitive awareness expands. Piaget further indicates that the child's social, physical and emotional capacities also grow. Play expresses needs and an understanding of experiences because it is directed towards an understanding of the world.<sup>9</sup>

Inherent in what Piaget has said is the suggestion that play is skills enhancing. This includes the skill or ability to socialize. Wenar (1971) thinks that young children seem to have an innate capacity to respond positively

and vigorously to social stimulation.<sup>10</sup> If this is so, then one should expect to find various studies on the social nature and social interactions of children's play. However, within the last decade, most of those psychologists who have been focussing on the play of young children have tended to concentrate on the value of play in the development of disadvantaged preschoolers. One of the major contributors of many years in the field, Smilansky (1968) makes a thorough investigation of the effects of socio-dramatic play on preschoolers. Because of the emphasis from Head Start in the late 1950's Smilansky's subjects are socio economically disadvantaged children.<sup>11</sup> Other investigators have followed in Smilansky's footsteps. Among them are Rosen (1973), Freyberg (1973) who experimented with increasing the "Imaginative Play of....Children..." and Lovinger (1973).<sup>12</sup>

Those empirical studies which have addressed play as a social behavior have tended to deal with the role of ethnic identity, sex and age in determining the choice of play activities or partners. Herron and Sutton-Smith (1971) record several studies which treat settings as independent variables affecting physical or psychological features of play.<sup>13</sup> But there still exists a paucity of conceptualizations in the area of peer relations. This relatively meager data exists because even those studies that have examined play as social behavior have not really dealt with the questions of how interaction is carried out or what kinds

of skills are involved in play interchanges.

Wenar (1971) expresses it quite succinctly when he says:

Under the impact of Freud, attention has been focussed on feeding, toileting, sex and aggression while early peer relations have receded into the background. Yet the change from parallel to cooperative play...may be as significant as any development in the preschool period. We know almost nothing of the factors which determine this transition and nothing of the conditions which facilitate or impede its progress....<sup>14</sup>

It is possible that the seeming neglect of children's play with their peers is a result not of lack of interest in the subject, but rather the persuasive influence of more traditional theories of socialization which have concentrated on the egocentric components of children's actions. Respected psychologists, especially Piaget, describe in great detail the egocentric nature of the young child. Piaget (1962) uses the term "egocentrism" to describe the condition which the child conceives of the world exclusively from his own point of view. The child, unable to distinguish "me" from "not me", marks by his egocentrism his early transactions with the social world. But Piaget also suggests that the child becomes less egocentric and more sociable as he grows older.<sup>15</sup> Murphy (1937) points out that all kinds of social interactions are on the increase between two and four years of age.<sup>16</sup> Swift (1964) confirms and extends Murphy's report. The child's social behavior increases as he comes face to



face with various situations.<sup>17</sup> In her study of sociability among preschoolers Isaacs (1937) suggests that there is more identification and togetherness among children. "Taking turns, for example, reflects the child's growing awareness of reciprocity, as does his occasional pride in reporting what 'we' did rather than what 'I' did".<sup>18</sup>

It would be possible to make only a few generalizations on peer relations had it not been for the study of Parten (1932). Her extensive observational study of the social behavior of preschool children reveals that they are social creatures and that the subject of play with peers needs further exploration.<sup>19</sup> The most recent relevant studies on preschool social interactions have been conducted by Garvey and Hogan (1973) and Garvey (1974).<sup>20</sup> These on going studies have been examining the ways in which young children learn from one another and have underscored that "through early interpersonal experience the child becomes, and can be shown to become, a practising social being".<sup>21</sup> It is necessary for other scholars to make a contribution to the new analytic dimensions of the study of the social development of young children. It is with this in mind that the present investigator plans to draw and document conclusions concerning the play of preschoolers with their peers. Perhaps an insight into who initiates play and an awareness of how boys and girls interact in their play group will help demonstrate to those concerned, that children acquire behavioral

skills at an early age and that boys and girls learn a great deal from their peers.

### The Research

The present research is undertaken to gain information on the social interactions of preschool boys and girls in spontaneous play situations. The findings of relevant literature which gives guidance to this investigation are discussed in Chapter II. In the remainder of this chapter specific aspects of the research are discussed.

### Importance of the Study

The preschool period is rich in development and those who work with young children, particularly parents, teachers and psychologists, may from a study of child-child interactions, become more cognizant of the significance of preschool behavior.

This study of play with peers is significant insofar as it provides knowledge that may be used to evaluate what children are learning from one another. This has implications for educational settings. Wenar (1971) makes reference to..."the meagerness of richness of the social experiences available to the young child. Social behavior expands as the child encounters a variety of situations which must be mastered. In an impoverished setting, his social techniques will be limited".<sup>22</sup>

This investigation may give further insights into the differences, if any, between the social development of girls and boys. If it is necessary to provide adult intervention to facilitate the social maturity of four and five year old preschoolers, this research may offer insights into the nature of that intervention. The implication is that ultimately knowledge gained from this study could be useful in evaluating the substance of preschool programs.

It is expected that the findings from this research will lead to a better understanding or awareness of the dimensions of the preschoolers' social development in such areas as friendliness or cooperation, the extent of progress from their initial egocentric stage of development. Knowledge gained from the terms of children's interaction may indicate the effects of early sex-role stereotyping.

### The Problem

The research described here addressed the following questions: Do boys use different means from girls to gain entrance to a group? Do boys use different means from girls to bring in new group members? Do boys interact differently from girls in their play groups? In order to answer the foregoing, specific research questions were formulated, a population for the investigation identified, and a methodology developed.

### Population

The population for this study is two groups of middle class four and five year old children in a co-operative preschool in East Lansing, Michigan. Thirty children are sampled, fifteen of whom attend school in the mornings (9 a.m. - 12:00) Mondays, Wednesdays and Fridays, and fifteen in the afternoons (12:30 - 3:30 p.m.) of these same days. The selected group consists of a total of fifteen boys and fifteen girls. These children can be identified as middle class on the dimensions of the educational standards and financial status of their parents.

### Definition of Terms

The usage of some terms may be unique to the present research. Therefore the following definitions are provided.

Sample: A child from the population.

Preschoolers: Children between the ages of forty-five months and sixty-five months, linked by their membership in a classroom situation.

Free Play: Any indoor situation in which the class activities of the children, in general are free from (1) adult direction (2) unsolicited adult intervention or suggestion. The materials are usually provided by the teacher.

Spontaneous Play:	See Free Play
Interaction:	All verbal and physical contact with another child or adult. Physical contact includes gestures and all other non-verbal means of communication.
Group:	A collection of three or more children in close proximity engaged in play activity.
Outsider:	A child who is not a member of a group.
Onlooker:	A child who watches others playing and derives pleasure without active participation.
Solitary Play:	The playing by him/herself of a child.
Associative Play:	Play in which children are loosely organized around a common activity and share interests and materials.
Co-operative Play:	One with a marked sense of belonging, where there is a leader(s) and the assigning of different roles to group members.
Peers:	See Preschoolers.

Props:	Toys; demonstration of strength, ability or activity.
Incorporate:	Admitting as members of existing groups, children who desire to join.
Sharing:	Making or receiving an interaction with the quality of mutuality such as, "Hey, look at the ship".
Helping:	The subject asks or is asked for information, material or effort. The subject gives or receives assistance, eg. "How do you make a ladder?" The interaction is not one of mutuality.
Asserting:	The subject is involved in an interaction attempt, the intent of which is to gain attention or admiration, eg. "Look what I have". "I can do that. I am the leader".
Means:	Strategies or techniques employed by the children in social interaction.
Round of Observation:	The ten minute period during which each subject is observed.
Sample Time:	See round of observation.

### Research Questions

The following are the questions to which the research seeks answers:

1. Is there a difference between the way that boys find a means to get into a group and the way that girls find a means to get into a group?
  - (a) Is there a difference between the way that boys use props and the way that girls use props?
  - (b) Is there a difference between the kinds of utterances that help boys gain entrance to a group and the kinds of utterances that help girls?
2. Is there a difference between the way that boys and girls incorporate other children into existing groups?
  - (a) Is there a difference between the frequency of language of boys and the frequency of language of girls in incorporation?
  - (b) Is there a difference in the frequency with which boys grant the request of outsiders to join their groups and the frequency with which girls grant the request of outsiders to join their groups?

3. Is there any difference between the way that boys and girls participate in group activities?

(a) Is there a difference in the frequency of sharing demonstrated by boys and the frequency of sharing demonstrated by girls?

(b) Is there a difference in the frequency of assertiveness used by boys and the frequency of assertiveness used by girls?

#### Limitations of the Study

Pursuant to a commitment to the school that the research will have no, or minimal effect on the children and the class' daily activities, this research was conducted solely by the investigator. This constitutes a limitation to the study even though the investigator is experienced with young children. The size of each group (15 children) attending at particular times (morning and afternoon) constitutes another limitation to the study. The study is also limited to a population of primarily white, middle class, urban children. Another limitation of the research lies in the absence of a comparison group for the population studied. Consideration was given to including in the research the population from one of the many preschools in the area. However, because no cooperative nursery school could be found whose general staff, curriculum characteristics and teacher expectations do not depart significantly from those of the center selected, the decision was taken to confine the



investigation to the single population described. The findings of the research are therefore not statistically generalizable beyond the confines of the population.

### Overview

In this chapter, the background to the research was discussed and the specific problem to be addressed was defined: Do preschool girls and boys exhibit the same degree of sociability as they interact with their peers in free play situations? The choice of a preschool setting for the research was discussed, and the specific cooperative center and population selected were described. Time sampling, the methodology chosen, utilizing narrative, and descriptive recordings of the activities of interest was identified. A definition of the terms significant to the present research was listed. The research questions to be addressed were specified, and the limitations of the study noted.

Following this chapter, the literature relevant to the present investigation is reviewed. In Chapter III, a more detailed discussion of the research setting and methodology are outlined. The results of the data analysis are presented in Chapter IV. A summary of the findings, conclusions and recommendations for further investigation are included in the final chapter.

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## CHAPTER II

### A REVIEW OF RELATED LITERATURE

Little boys and girls play together. This is a simple statement of undeniable fact. But how do they play? What is happening as children play? Scholars have addressed these and numerous other questions related to children's play in a wide variety of ways. In the review that follows, consideration will be given to the social collaboration, sociability, sex-typing, cooperation and group interaction of preschoolers at play.

In discussing Piaget, Almy (1977) notes that the preschooler's experience which is necessary for his intellectual development, is made up of physical activity and social interactions.<sup>1</sup> Arnaud (1971) suggests that when play is shared among other children it is a "major vehicle for constructive socialization, widening empathy with others and lessening egocentrism". Perhaps the main reason that middle class parents send their three, four and five year old children to nursery school is to enhance the dimensions of the preschoolers' social development. For several educators (among them Garvey 1975) say that

preschoolers are social creatures. Garvey believes that the development of sociability is as important as other aspects of the child's growth.<sup>3</sup>

### The Sociability of Boys and Girls

Although Barnes (1971) believes that today's preschoolers are less social than preschoolers of forty years ago, there is no denying that young children are social beings. Barnes believes that present day nursery school children exhibit significantly less social behavior than three to four year old children of forty years past because of (1) the change in the number of hours that preschoolers are exposed to mass media, (2) marked reduction in family size in the past two decades.<sup>4</sup> Inherent in what Barnes is saying is the suggestion that the social nature of children is best developed and demonstrated as they interact with various peers.

As stated earlier, many psychologists have underscored this thinking as they believe that human beings have an innate (though dormant) social tendency and this sociability or "involvement" as Eckerman (1974) puts it, increases with age.<sup>5</sup> From her classic study of social participation of preschoolers, Parten finds that age has an important influence on social participation. The older the child the more sociable he is.<sup>6</sup>

The young child begins to play during the first few months of life, concentrating his actions upon his/her body. There is some disagreement as to when in the early months, playful activity is said to begin. For instance, McFarland (1972) and Murphy (1971) suggest that play starts when the baby's energies first begin to exceed his/her requirements for basic need fulfillment.<sup>7</sup> Piaget (1962) sees their onset some weeks later, when certain activities first cease to be "instructive" and are repeated for purely functional pleasure.<sup>8</sup> It seems however, that there is agreement that the child's play gradually moves from its focus on his/her own body towards other persons in the environment. Wenar finds that between two and a half to three years, the child begins to show a keener understanding of others and a wider range of social behavior and this proliferation of social behavior continues through pre-school.<sup>9</sup>

The infant extends his play from his/her own body to playful interactions with his/her mother and/or primary caretaker. Piaget's studies are replete with references to the parent's role in offering the infant objects for play, and for making himself/herself available for the child's self initiated activities and play.<sup>10</sup> Furth (1970) interprets Piaget as stating that as the young children play with objects, they consolidate their knowledge of

these objects. They also become aware that the objects have an existence apart from their actions upon them and thus children lay the foundation for their ongoing maturation and development. Children move from the knowledge of objects gained, Furth (1970) goes on to say, in part through manipulations and exploring play, to a new level of capability, wherein objects begin to be used as substitutes for others.<sup>11</sup>

Opinions in the literature vary as to the functional significance of others in the environment. But Erickson's (1972) extensive observations of young childrens' play indicate that the child has both experienced and observed others in the environment. Moreover, the child needs others.<sup>12</sup> Piaget (1962) refers to the symbolic use of objects as a means of assimilating life experiences restoring "daily conflicts" and realizing "unsatisfied desires", uses which strongly infer the presence and significance of others in the environment.<sup>13</sup> In the writings of Wenar (1971), young children seem to be made to respond positively and vigorously to social stimulation. Preschoolers may play and quarrel. They know the label "friend" though not the concept, since in these early years their friendly relations cannot always compete successfully with their egocentric needs to win or be first.<sup>14</sup>

It is interesting to note that Wenar finds that:

Preschoolers are attracted to qualities which facilitate social interaction; co-operativeness, respect for property, compliance. Sociability involves among other attributes: sympathy and empathy arising from identification with feelings of another child. But there is a new, deeper kind of identification with others which gives rise to a sense of oneness or togetherness. Taking turns, for example reflects the child's growing awareness of reciprocity, as does his occasional pride in reporting what "we" did rather than what "I" did. Finally, and most importantly, sociability depends on the capacity for giving to another child whether it be tangible things or helpful services.<sup>15</sup>

Isaacs (1937) finds this to be true of preschoolers as is their desire to protect younger pupils and newcomers in the class.<sup>16</sup>

#### Social Collaboration in Play

As mentioned earlier, Piaget (1962) notes, that as young children grow, their capacity for meaningful interaction with their peers increases markedly and their interest in incorporating other children into their play rises similarly.<sup>17</sup>

Almy (1967) further elaborates on this view by stating that girls and boys learn more readily from their peers whose views are somewhat closer to their own, than from adults, who may be expected, as a matter of course to engage in less egocentric more logical forms of thought.<sup>18</sup>

Social collaboration with peers in play then serves to enhance cooperative development. Equally important is the fact that it provides opportunities for social companionship and assistance and for resolution of problems.



As Millar (1965) puts it, "Play relationships to real people serves as an opportunity for solving problems... the child 'needs' other children with whom crisis can be played out".<sup>19</sup> The play of the young child then is social in nature. For through their play children are learning how to cope with the society into which they are born. As he/she learns more about him/herself in play, the young child also learns more of and develops relationships with others. The formulation of social relationships is important for as Erikson states, (1972) the child in playing becomes oriented to the possibilities and boundaries of what is imaginative and possible, and then to what is most effective and permissible in the culture.<sup>20</sup> "The child may thus be seen as learning to conform to society", in the words of Mydral (1972)<sup>21</sup> or, according to Erikson (1972) learning what society's version of reality is. Through his/her play, the young child is seen both as penetrating reality and as confronting it more effectively. He/she is learning by trial and error how to cope as an individual as he/she grows up in society.<sup>22</sup> The lessons that young children learn as they grow in society are numerous. Among them is that the society is heterogeneous in various ways - the most striking being sexually. The fact that society has male and female sexes poses numerous

questions on their differences and similarities. In the opinions of many writers, boys and girls behave differently because they are biologically different. Yet there are other scholars who maintain that in spite of biological differences there exists a great deal of similarity in the play interactions of girls and boys. It is to the question of sex differences that this review now turns.

### Sex-Typing

Sex-typing is the individual's learning of what is socially acceptable for his or her sex. Mischel (1966) sees the patterning of sexual attitudes as a reflection of the patterning of sex-typing of the culture. Cultural socializing agents sex-type their own and the child's behavior, and the child's resultant "acquisition and performance and sex-typed behaviors can be described as the same learning principles used to analyze any other aspects of an individual's behavior".<sup>23</sup> That the child learns what is his/her sex type is borne out by Gessell (1952) who says:

Physically the child inherits nothing fully formed. Each and every part of his nature has to grow--his sense of self, his fears, his affections and curiosities, his feelings towards mother, father, playmates and sex... all his sentiments, concepts, and attitudes are products of growth and experience....<sup>24</sup>

Hence a child is born with certain biological givens related to his or her sex and he or she learns the roles of that sex through social interaction within the society. Wenar (1971) says, "The neonate must learn that he is a 'boy' or a 'girl', since he or she has no innate knowledge of the matter". Wenar goes on to state that "gender is one of the most significant labels a child will come to apply to itself, and barring exceptional circumstances, this label will last a lifetime. A child will also learn that as a boy or a girl, society prescribes behaviors and feelings which are appropriate and inappropriate. These prescriptions define the sexual role and extend to many areas of functioning".<sup>25</sup> Gordon (1969) says, "a major task of early childhood consists of identification with one's own sex -- learning the appropriate male or female adult role".<sup>26</sup> There does not appear to be any firm evidence that females and males are destined by nature for the arbitrary roles and characteristics assigned to both sexes. Baller and Charles (1968) believe that only in late childhood and onward is there any physiological reason for different behavior between males and females. But our culture insists that girls and boys behave differently; learn different sex roles.

"No doubt it is well known", suggest Mussen, Conger and Kagan (1974) that during the preschool years most parents pay attention to the sex appropriateness of their child's

behavior.<sup>28</sup> Some mothers tell their little girls, "Don't you laugh so loudly - you are not a boy". "I will not have you screaming and climbing like a tomboy". So often a little boy who has had a fall is told to take it like a man. Howe (1971) finds that children learn about sex roles early in their lives, probably before they are eighteen months old...certainly before they start school.<sup>29</sup> By the time she is three years old, a girl in any society knows her identity as a girl and is rapidly learning what is considered appropriate sex-typed behavior.

By the age of four years, it would appear that the child has already divided the world into male and female people. And in nursery school the girl extends her concept of self as "female", and the boy as "male" primarily perhaps through her/his relationships with her/his peers.

The question of the development of sex-typed behaviors is interpreted by some psychologists as a social learning process. Among them is Mischel (1966) who says that sex-typed behaviors "...typically elicit different rewards for one sex than for the other". In other words, sex-typed behaviors have consequences that vary according to the sex of the performer. "Observational learning from life and symbolic models (i.e. films, television, books) is the first step in the acquisition of sex-typed behavior".<sup>30</sup> On the other hand cognitive-developmentalists like Kohlberg

(1966) suggest that sexuality constitutes the most significant area of interaction between biological givens and cultural values in human emotional life. Kohlberg says, "Basic sexual attitudes are...patterned...by the child's cognitive organization of his social world along sex-role dimensions. The patterning of sex-role attitudes is essentially 'cognitive' in that it is rooted in the child's concepts of physical things".<sup>31</sup>

Although it is important to mention some of the theoretical orientations towards the question of sex typing, it is beyond the scope of the present discussion to delineate these ideas further. It may be, however, that these two views are not entirely opposing. Sex role typing may be taught directly and indirectly by various agents.

#### Agents of Sex Role Typing

Elkin (1960) says, "A status is a position in the social structure, and a role is the expected behavior of someone who holds a given status".<sup>32</sup> The child is naturally endowed with the status of sex and acquires his or her sex role through socialization which occurs in interaction with organized groups such as the family, the school and peer groups. Each socializing agency molds the young child into its own patterns and its own mores.

Socialization is defined by Guskin and Guskin (1970) as the process by which an individual learns the ways of a given society "...the behaviors, values and expectations

of others---so that he can take on particular roles in the society and function with it".<sup>33</sup> Elkin (1960) feels that "socialization includes both learning and internalizing appropriate patterns, values and feelings".<sup>34</sup> Some of the agents responsible for sex-typing will be considered next.

(a) The Family. Within the institution of the family the child not only knows what is expected of him/her and behaves accordingly, he or she also feels that this is the proper way to think and behave.

The family has certain rituals that are to be followed and Elkin (1960) indicates that this agency is pre-eminent.<sup>35</sup> In Western culture, girl babies are dressed in pink frilly clothes and boys wear blue pants-type garments. Girls get dolls to play with while boys receive trucks. Gordon (1972) states that "parent behavior in the first six years of life influences the child's identity and the standards he/she will set for typical sex-related behavior".<sup>36</sup> Parents tell and/or demonstrate to their little boys that they will expect them to be smart and athletic. Traditionally most mothers will not change their clothes in front of their sons but may do so in the presence of their daughters. The little girl is taught to keep her dress down and is praised for keeping herself neat and clean and for acting in a lady-like manner. Thus, very early in the children's lives parents are actually directing the sex-appropriateness of their behavior.

Fauls and Smith (1956) find that "children rapidly learn differences in parental expectations concerning sex-appropriate behavior".<sup>37</sup> In addition, parents serve as models for the child. "Little boys will practice being men", say Fauls and Smith, "and being a man means acting like daddy. Similarly girls may model much of their behavior after their mothers".<sup>38</sup>

(b) The School. By the time boys and girls get to pre-school they have learnt that they belong to different culturally determined emotional atmospheres. Piaget (1964) defines learning as "a process provoked by external situations (a psychological environment) and limited in scope".<sup>39</sup> Young children are aware of differential treatment towards them. Elkin (1960) says that men and women behave differently before the child and treat the boy differently. Women kiss him, dress him, prepare his meals and use feminine expressions in talking to him. Men shake his hand, handle him roughly, play ball with him and take him fishing.<sup>40</sup> Generally the preschool girl knows that in school she is rewarded if she plays in the doll corner, and she may dress up and go to parties and the beauty shop. She is not a cowboy nor the fireman. The attitudes of some teachers of nursery school, however, have been changing in recent years so sex roles may not be as stereotyped everywhere.

Levy (1972) feels that schools are supposed to educate everyone and equalize opportunities for all. He says that what schools are succeeding in doing, however, is perpetuating the social and economic irregularities that exist.

"Boys and girls...even from their preschool years...learn differential status of men and women just by looking at how many men are principals and how many females are teachers".<sup>41</sup> Most teachers of preschoolers are females.

To support Levy, Gillespie (1973) notes that sex-role stereotyping has been documented as beginning in nursery school. The basal reader is the biggest early agent. Women are shown as housewives, girls are dependent on their brothers; boys are problem solvers.<sup>42</sup> "In the books written for young children boys are trained to express themselves; girls to please and to be cooperative", echoes Joffe (1971).<sup>43</sup>

(c) Peer Groups. Even if the school makes a conscious effort to avoid fostering the contemporary notions of sex roles, young children will still learn sex-role socialization. Piaget (1964) finds that what is learnt at any given point is at least in part determined by what has gone on before, not merely by what the child has experienced, but more by the elements to which he/she has paid attention. "Every construction from without presupposes a construction from within".<sup>44</sup> The young child comes to nursery school with some acquired knowledge of sex-typing and he/she has



more and more opportunity to interact with other children, peers play increasingly important roles in sex-identification. Garvey (1975) says one vehicle through which this takes place for the preschool child is the social play situation.<sup>45</sup>

The peer group has its codes and games. As mentioned earlier, girls know that it is the domain of boys generally to be the fireman, superman, baker, policeman or steel worker. Socialization in the peer groups is taught in the course of interaction as children abide by the codes. Elkin (1960) finds that the group rewards its members by bestowing attention, approval, or leadership or by giving permission to participate or employ certain symbols. For behaving otherwise the peer group punishes by disdain, ostracism, or other expressions of disapproval.<sup>46</sup>

As peers play they practice adult activities and inculcate adult standards and expectations. Goodman (1970) states this succinctly, "Through mimicry, a universal type of play, and particularly mimicking of adult activities, through observation and imitation of that world the culture of childhood comes to include versions of adult values".<sup>47</sup> The devotion of many hours of the preschoolers' time to role-playing is a part of their identifying with the models in their society...parents, teachers, and other people important to them.

It has been suggested that boys behave differently from girls. But what are some of the specific sex differences in their play behavior? The following section attempts

to throw some light on the question.

The Specificity of Sex Differences  
in Play Behavior

Much of the research on the development of sex differences has been guided by Freudian-derived concepts like "identification", "incorporation", "internalization" and "introjection". Mischel (1966) feels that no distinction between the terms is necessary as they refer to the tendency for a person to reproduce the actions, attitudes, and emotional responses exhibited by real-life or symbolic models.<sup>48</sup> The ongoing social environment into which a child is born allows for the first lessons in being a girl or a boy. Children learn behaviors of both sexes but they differ in the degree to which they perform and value these behaviors. Mischel states:

The present definition of sex-typed behavior stresses the difference in outcome as a function of performer's sex. Boys and girls discover that the consequences for performing such behaviors are affected by their sex and therefore soon perform with different frequency. 49

In most societies differences between the play of boys and girls are not merely expected but actively encouraged. It is for this reason that in our culture only very young boys may be allowed to play with their sister's dolls without ridicule. Millar (1968) finds that girls are labelled "tomboys" if they do not conform to quieter,

gentler, less aggressive activities. Boys who eschew rough games are in danger of being labelled 'sissy'. Some three year old boys are found to show sex differences in the aggressiveness with which they play with miniature dolls. Four year old boys engage in more romping activities involving large muscles, while girls tend to play house and paint.<sup>50</sup> Gibson (1978) echoes the same thought:

"By age three, boys in our culture tend to exhibit significantly more aggressive behavior at play than do girls. They also engage in play activities involving the large muscles, more often than do girls. Boys spend much of their play time involved in sports such as ball-playing, while young girls tend more often to play games involving observed household activities or work rules. When raised at home they also respond in ways that reflect significantly more dependence on their mothers than do boys".<sup>51</sup>

That sex influences the play of young children has been attested to by several authors. Sutton-Smith (1971) reports that according to Angell, imitation of people he admires is common in a boy's play. Sutton-Smith also quotes Tanner as saying that both boys and girls of preschool age imitate such matter-of-fact actions as going to the store and family life.<sup>52</sup> Benjamin (1932) reports that a doll proves to be the favorite toy of girls while an automobile, airplane and cowboy are more often chosen by preschool boys.<sup>53</sup> The works of Shallit (1932) and of Bridges (1929) support Benjamin's as they find that sex differences in play materials do exist for four and five year olds. Both

writers say that in dramatic play the real sex differences show up in boys' choice of boats, cars and trains as their favorite toys.<sup>54</sup>

Most of the instruments designed to measure sex-typed behavior in children have preference items. On some tests children are asked to choose between pictures of various toy objects and play activities. For example "The I T Scale for Children" (D. G. Brown 1956) requires the child to choose toys and activities which "I T" (a non-sex identifiable cardboard figure) would like best. Sex-typing is measured by the number of appropriate choices the child makes. Shallit (1962) says that toys such as a doll buggy, dishes, beads, and a purse, for instance are classified as feminine choices while a dump truck, carpentry tools, a gun or an erector set are classified as masculine.<sup>55</sup> Spencer (1967) says "the influence of sex roles does not stop at children's performance on 'preference' tests".<sup>56</sup> Wenar (1971) finds that it spreads to games and toys actually used. Boys prefer sports, machines, and activities capitalizing on speed and power; girls prefer games and activities involving babies, home, personal attractiveness and "fantasy" themselves as nurses or secretaries. Boys' preference for active games starts as early as three years of age and becomes increasingly stronger, while girls are more variable in their preferences until nine or ten years of age.<sup>57</sup>

It is not surprising that boys and girls of three behave differently in play situations. For as has been pointed out, boys are usually rewarded for playing with objects that are considered "male" and for behaving in ways that are "male". Gibson (1978) finds that girls are often rewarded for different activities and different play objects.<sup>58</sup>

Derived from a recent study of the play of preschoolers, Millar (1968) notes that the greatest difference is in the manner of their play. Both girls and boys may play the same game, but boys by and large are more boisterous and energetic than girls.<sup>59</sup> Such a finding seems consistent with the expectations of our culture. The association between maleness and aggression is firm and pervasive. Wenar (1971) finds that preschool boys are more aggressive than girls in their overt behavior and in their fantasies. Adults expect more aggression from boys than girls.<sup>60</sup> Several studies have been devoted to the study of aggression in young children. In fact aggression has become one of the main variables in delineations of masculine and feminine behavior. "Fairly consistently", Mischel (1966) says, "boys show greater physical aggression and more 'negativistic' behavior. Boys are often encouraged to fight back, if another child starts a battle. But in girls aggression is less sanctioned".<sup>61</sup>

In school, constructiveness in cooperative activities and high energy output in physical activities are important in boys' play and friendships. Maybe this is why there tends to be more conflict and overt aggression in boys, while girls tend to exhibit more general gregariousness.

### Getting Into Groups

Wenar (1971) reports that the child's craving for companionship and cooperative play are apparent before the age of three. But by age four the need becomes paramount and potent.<sup>62</sup> Swift reiterates the situational factors that affect group formation:

We learn, for instance that physical equipment such as dolls, clay, blocks, swings and wagons facilitate the formation of cooperative groups.<sup>63</sup>

Murphy (1972) takes this a step further by saying that also important to the formation of groups are maturity, security, initiative, imaginativeness and active engagement in similar or interdependent activity.<sup>64</sup> Wenar (1971) also finds that preschoolers use various means to become members of a group. They may show off objects, demonstrate their strength or agility or they may copy the behavior of another child. Wenar feels that imitation can be the initial step in becoming a member of a group, and children's social repertoire is constantly being enlarged by observing and

copying the behavior of their contemporaries,<sup>65</sup>

Four year olds are not as constrained by as limited a vocabulary as two year olds. They can therefore use less crude techniques to initiate and sustain social interactions. In his discussion of "Boundaries", Sutton-Smith (1971) makes reference to the way children smile, giggle, and make an exaggerated gesture. He says they use mainly ludic techniques to cross boundaries, i.e they get into each others' play territory by making a play gesture such as a mock attack or a stunt, by inaugurating a fantasy or by making a ludicrous expression.<sup>66</sup> Quite often the expressions of the four and five year olds are egocentric: "Look what I've got". "Hey, I'm superman".

Since sharing interest and activities is one of the corner stones of peer relations according to Wenar (1971), peers attract because they naturally do mutually interesting things.<sup>67</sup> Quite often young boys and girls are heard to say "Let's play house and you be the mother". "Do you want me to share my airplane with you and be your friend?"

The foregoing commentaries support the findings which Parten (1932) makes. In the course of her intensive study she notes six different techniques used by the children to gain entrance into a play group:

The most direct technique consisted in the outsider's asking a member of the group, "Can I play too?" Somewhat more round-about requests to join the group were addressed to the teacher, "I want a place to paint". Sometimes the outsider gained entrance into the group more subtly by commenting on the activities of some of the members, "My, that's high. What are you making? Again the outsider merely presumed that he was accepted and joined the play, perhaps with a comment, "Play I'm Aunty" or a question, "Shall I be the little brother?" Occasionally the child formed his own group by displaying toys he brought from home or by assigning roles to the other children, or by inviting others to play, "This chair is for Harriett". The least aggressive method of gaining entrance was by invitation from the group, "Paul come play with us". 68

It seems that groups do not always remain fixed. Some children will leave one group for another or will form a new one if they find it necessary. Parten further observes that preschoolers usually play in groups of three, four or five. Only on rare occasions do they get into larger groups for spontaneous play. In order for group play to be successful, preschool girls and boys display cooperative behavior.<sup>69</sup>

### Cooperation

Cooperation is defined as two or more individuals joining their efforts to reach a goal which is mutually desirable. Smith (1960) considers cooperation to be more advanced than competition because it is dependent upon the growth of social awareness, social skills, adaptability and altruism - qualities which are only budding in most preschoolers.<sup>70</sup>



Sharing interest and activities is important in any peer relationship. Fitzgerald, Strommen and McKinney (1977) suggest that during the years from two to five, peer social interaction diversifies and true mutual give and take begins to develop. First friendships are made, cooperative play increases and first peer groups are formed.<sup>71</sup> Support for this statement is found in the writing of Gibson (1978) who feels that relating satisfactorily to others requires co-operation, sharing and generosity. And, although preschoolers are still egocentric at age four and five, they like the qualities of comparativeness and compliance.<sup>72</sup> Apart from liking these qualities, preschoolers strive towards and develop them over time. Gibson goes on to say that co-operation develops after age three when children learn to interact cooperatively with each other. Cooperation involves learning how to use peers for help and also how to provide help for others. Children may take turns at different activities, for example, pushing each other on the swing.<sup>73</sup> Inherent in what Gibson says is the suggestion that the ability to cooperate increases with age. Piaget (1962) writes extensively about the innate egocentrism of children but notes also the growth in social skills as boys and girls get older. Gradually by preschool they get to the stage where they can distinguish "me" from "not me" and the first signs of a "we" feeling begin to emerge.<sup>74</sup> Isaacs takes this observation a step further and reports

how joyful children are in the realization of "ourness". She speaks of the sense of reciprocity taking the place of the monadic outlook. For example, her subjects cooperated in modelling the things for a "birthday party" and were happy because they worked together. This would not have been an easy task at three. And Isaacs concludes, "The pleasure and pride which togetherness in loving services may bring is shown when Harold and Paul carry a chair for Mrs. I. to sit on, and Paul says proudly, 'We brought it together'".<sup>75</sup>

Further support for this is provided by Millar (1968) who states:

There is little doubt that children become more capable of cooperating as they grow older. The difficulty of the task which depends on co-operation, as well as ability to communicate with each other, are involved in this. In an investigation in which the apparatus was so arranged that a child could only receive a sweet if the partner pulled a string, older children succeeded easily. They simply told the other what to do. <sup>76</sup>

Garvey (1975) says that the ability to cooperate is learned by experience.<sup>77</sup>

It seems then that cooperation is essential to any amicable play relationship. A preschooler may not always be dependent on his/her peers for encouragement and consolation, but he/she will always need them for any associative venture. Fitzgerald et al. (1977) find that during the

preschool years, many of the child's attempts to gain effective control of the environment and autonomy occur in the context of cooperative social interaction with peers. Moreover, play enhances language competence.<sup>78</sup> In her observations, Garvey (1975) finds that preschoolers play with language socially. Though one child might start first, the play very quickly becomes a joint production. Typical of a jointly created poem is:

I need this  
 You need that  
 You go way up high  
 You go way up high  
 You go high in the sky. 79

So there is cooperation in social acts as well as in social speech among peers. It is the topic of speech that will be considered next.

### Children's Social Speech

One of the most important social interchanges - communication - starts with conversation. Speech itself is essentially a social act, taking place in a social context. This statement is made by Garvey (1975) who goes on to explain:

It is common tradition for instance that much of speech is not chitchat, or a discussion of something apart, but is actually a social act itself. When someone says "I congratulate you", he's...performing a social act. Saying becomes doing. And all other things we say have act characteristics of some kind..."Close the door" is a request for action...Even a "What?" is a

request for information that requires an action or response. So when these children talk together, or communicate in play, they are performing a series of social acts.<sup>80</sup>

If the foregoing is true, then the preschooler's language may be able to tell us a good deal about his/her social development. It is the view of Erickson (1963) that somewhere about the age of three years children first develop what is called "socialized speech" - speech that communicates to others what the child is doing as well as what other people are doing.<sup>81</sup> Garvey (1975) agrees, suggesting that as early as age three, children have already worked out, in the way they make requests or respond to them, well - advanced social - cognitive patterns or schemata that systematically use conventional language and vocabulary.<sup>82</sup> Gibson's (1978) interpretation of Piaget is that he assumes that the reason young children use egocentric speech before socialized speech is simply that they have not learned yet how to socialize or communicate and therefore are not interested in the rest of the world.<sup>83</sup> Vygotsky (1962) disagrees with Piaget on this matter. For Vytogsky egocentric speech has a function different from that of socialized speech and the use of egocentric speech does not indicate lack of interest in communicating. According to Vygotsky, egocentric speech is used by young children as a method of guiding behavior: they tell out loud what is happening or what should happen. Later this overt speech

disappears and is replaced by what Vygotsky calls "non-verbalized or inner speech. Four year old children need not tell themselves out loud what they are doing or how they should behave; their inner speech communicates these messages without being apparent to others".<sup>84</sup>

The differences in opinion concerning the purpose of egocentric speech are not significant enough to negate the fact that little children progress from egocentricity to sociability in speech. For as Garvey (1975) attests:

Through early interpersonal experience and conversation the child becomes and can be shown to become, a practising social being. The nursery school child prattling away in the sand box with a playmate in a game of "pretend" is actually involved in a subtle and complicated give - and - take which includes mutually understood rules, implied goals to be achieved together, shifting tactics, the exchange of information and definitions and the like. <sup>85</sup>

It is interesting to examine what children say to one another as they play. There are not many reports on what children say during spontaneous play, but sufficient evidence exists to testify that both girls and boys use language in much the same way as adults do. Isaacs (1937) says that they make requests and promises - "Can I play too? I'm going to buy you a helicopter"; they give orders and reports - "Tom you leave that doll alone! Pauline hit May"; they express feeling and desires - I love you Mrs. I. Oh I wish my Mommy had a baby too".<sup>86</sup> Garvey (1975) postulates

that preschoolers "exhibit uncanny competencies in their social speech in their attempt to influence another child. And the preschooler knows how to use strategies to get what he wants". To illustrate her point Garvey records the following conversation between two four year olds:

A: Pretend this was my car.  
 B: No!  
 A: Pretend this was our car.  
 B: All right.  
 A: Can I drive your car?  
 B: Yes, okay.

"B smiled and moved away from the car and A climbed on and made driving noises. The strategy worked. Although B did not at first want to give up the large toy car on which he was sitting, A got it".<sup>87</sup>

Quite a few studies of language production have measured the relationship with the sex of the child. McCarthy (1954) indicates that these studies show girls to be higher in language production at early levels.<sup>88</sup> One of the scholars to whose findings McCarthy refers is Maccoby (1966) who suggests that through the preschool years, girls exceed boys in most aspects of verbal performance. They say their first word sooner, articulate more clearly and at an earlier age use longer sentences, and are more fluent.<sup>89</sup> Gibson (1978) also attests to this. According to her the sex of a child is related to language acquisition and production: girls tend to speak earlier than do boys. The mean age for speaking fifty words for girls is eighteen months; for boys,

it is twenty two months.<sup>90</sup> Fitzgerald, Strommen and McKinney (1977) are among those investigators who find that girls surpass boys in nearly all aspects of language behavior, including the length of utterances, comprehension of speech, articulation, the number of words spoken, the number of different words spoken, amount of speech, and sentence complexity.<sup>91</sup> One important area of speech that investigators have examined is the difference in verbal aggression in the speech of girls and boys. It has been said that pre-school girls demonstrate more verbal aggression than, or as much of this as boys. This is the finding of Durrett (1959); Sears (1951); Bandura (1961); Sears (1957); McKee and Leader; (1955) Sear (1965); Muste and Sharpe (1947); Jersild (1935); and Sears et al (1953). But opinions differ on this question as some investigators find boys to be more verbally aggressive, just as they are more physically aggressive than girls. These authors include Green (1933); Dawe (1934); Walters et al. (1957); Beller and Turner (1962); Beller and Neubauer (1963); Bandura et al. (1963) and Gordon and Smith (1965).<sup>92</sup>

Garvey (1975) finds that during play children like nonsense syllables. Other investigations have testified that fantasy and nonsense are popular with preschoolers. Here is a classic piece. A "wrote" this letter while B listened:

- A: Dear Uncle Poop, I would like you to give me a roasted meatball and some chicken-pox... and some tools.  
Signed Mrs. fingernail.  
(She smiles and looks expectantly at partner).  
B: Toop poop: (laughs) Hey are you Mrs.Fingernail?  
A: Yes, I'm Mrs. Fingernail  
B: poop, Mrs. Fingernail.93

### Summary

A review of literature related to the play of pre-schoolers was presented in this section. This review focussed on sociability , social collaboration, sex role typing, agents of sex typing and specificity in sex differences as seen in play. Also examined was relevant literature or group formation, cooperation and children's speech in social play. The review emphasized a number of major areas which are relevant to the present research. The first is that children have innate sociable tendencies which with time supercede their egocentric nature. Next is that among the various agents of sex role typing, three stand supreme, the family, the school and the peers. As children get older the number of day-to-day contacts with others increase. Children participate more frequently in activities with peers and at the same time they gradually increase the complexity of the responses they are able to make toward one another. Similarly, they decrease in the amount of solidarity play, and increase in cooperative play. The literature also reveals that aggression defines masculinity. Girls are expected to be soft and emotional. Through play children are stimulated to use language to solve problems, ask questions, share experiences and direct activities. The few writers



who address the question of the language children use during free play, agree that preschoolers use social speech in their play interactions.

Only a few investigators discuss the means used by boys and girls to gain entrance to a group. These authors agree that boys and girls use the techniques in the same way. There is also agreement in the literature that boys and girls use similar strategies in similar ways to bring new members into their groups. Apart from one classic study by Parten on peer relations, there is very little if any evidence on the way that boys and girls participate in group play. Evidence is from Parten's study which suggests that boys participate in play groups in the same way that girls do. Other studies did not systematically address the participation in groups of preschool boys and girls. Parten studied three and four year old children but made a statement about boys and girls.

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## CHAPTER III

### RESEARCH DESIGN AND METHOD

In this chapter the research setting, the population studied and the methodology used are discussed. In addition a pilot study is described.

#### Statistical Design

The Chi-Square Test for homogeneity with subjects nested within the independent variable of sex was used for the statistical analysis of the research data. (See Chapter IV page 70 for a complete rationale for the selection of Chi-Square as a statistical design.)

#### Research Setting

The investigation was conducted in a cooperative preschool in East Lansing, Michigan which serves 60 children between the ages of three and five years, five days per week. School lasts from 9:00 a.m to 12:00 noon for morning students and 12:30 p.m. to 3:00 p.m. for afternoon students.

Several characteristics of the school and the classes observed made it particularly appropriate for the research. First, the two classes observed served children from homes representing a relatively homogeneous group in terms of



economic status and race. The children were middle class whites. Secondly, the parents (usually two per class session) took turns to come to the school and assist the class teacher. This provided an excellent opportunity for each child to know and work with the parents of his/her peers. Of considerable importance is the third factor. All children within the ages of interest were allowed free access to all toys, equipment and other children. No adult imposed barriers (eg. related to sex or age) were placed in the way of the children's free choice of activities and companion(s) in spontaneous play. Significant blocks of time were allotted for spontaneous play at each session by the teacher.

Two other characteristics of these classes deserve to be noted. First, parents of both sexes assisted the teacher. Secondly, the teacher and her assistants avoided typing any toy or activity as belonging to or appropriate for "girls" or "boys". The children were not expected to play or refrain from playing with any toy, substance or equipment because of their sex.

The school was housed on the second floor to the rear of a church building. The pupils had free access to several rooms; one contained large muscle equipment, blocks "dress up" equipment, sand tray and a piano. Another room had equipment for painting, water play and woodwork. In yet another were smaller toys and equipment and there was

a gymnasium where the children were taken for certain specific games and activities.

For the children observed, the daily schedule was quite flexible. The children went on several trips, for example, to the Public Library, the museum, shopping centers and the arboretum. On the days that the observations were conducted, the daily schedule approximated the following:

#### Morning Students

9:00	-	9:20	Arrival of children, indoor free play
9:20	-	9:35	Calendar, news, "show and tell"
			Introduction of new class activity
9:35	-	10:30	Free play, sewing, woodwork, painting, drawing, craftwork, specific class activity (eg. siphoning).
10:30	-	11:30	Story time, music, rest.
11:30	-	12:00	Snack time (Children help to prepare tables and eat family style with staff) Clean up and dismissal.

#### Afternoon Students

12:30	-		Arrival of children, indoor free play.
12:50	-	1:05	Calendar, news....
1:05	-	2:00	Free play, art and craft...
2:00	-	3:00	Story time
3:00	-	3:30	Snack....and dismissal.

Time sampling of the children's spontaneous play, activities took place at the school, indoors, generally between 9:00 to 9:20 and 9:35 to 10:30 in the mornings. In the afternoons, observations were conducted between 12:30 to 12:50 and 1:05 to 2:00.

### Population

Thirty children were a part of this study. Fifteen of them attended preschool in the mornings (9:00 a.m. to 12:00) Mondays, Wednesdays and Fridays. Fifteen attended in the afternoon (12:30 p.m. to 3:30 p.m.) of these same days.

The morning group consisted of six girls and nine boys while the afternoon group was comprised of nine girls and six boys. Altogether there were fifteen girls with a mean age of 4.5 years and fifteen boys with a mean age of 4.7 years.

These children were designated middle class because of the educational standards and financial status of their parents. Permission was granted by the school and all the parents of sample children to participate in the study. (See Appendix B.)

### Methodology

Time sampling of children's activities undertaken during periods of spontaneous play was the data gathering methodology selected for this investigation. The investigator observed groups of children for ten minute intervals.

Narrative descriptions of each group's interaction and some of the direct speech were recorded with a portable cassette recorder. The narrative descriptions were subsequently transcribed for analysis.

Pilot Study. A pilot study at the preschool was undertaken from March 27 to May 5, 1978. The pilot study was conducted to give the children, teacher and those parents who help from time to time, an opportunity to become acquainted with the presence of the investigator. After a week of participation in the daily activities of the class, the researcher began to use the tape recorder to record various activities of the children.

For the investigator the trial use of the machine served as a field test by which the proposed procedures to gather the data necessary for the research could be examined. For the children, the trial use of the tape recorder provided them with the opportunity to become familiar with a machine that would be in their room. Within two days of describing and recording classroom activities, curiosity about the tape recorder and the investigator's use of it waned. Only once during the five weeks of research did curiosity occur.

Several procedures used in the investigation were tested and adopted during the period of pilot study. The machine, a Sony portable cassette tape recorder, with built in microphone, was found to be appropriate with regard to size, portability and recorded sound quality.

The investigator carried it around openly as narrative descriptions of the children's activities were recorded. A stopwatch was used to time each observation, after recording information such as the child's name, the time and the activity engaged in or about to be started. At the end of the sample time, the observation was terminated.

One of the important objectives of the pilot study was familiarization of the investigator with the requirements of narrative description recording in the classroom. Some of the questions addressed: (1) How long should a sample or round of observation last? (2) Should the observer remain stationary while recording given interaction or should she follow the child under observation if necessary? (3) By what criteria should an observation be commenced, terminated and cancelled?

For the investigator, the pilot study served to determine how long each observation should be, whether three, five, ten or twelve minutes. The shorter time periods of three and five minutes were found unsuitable because they did not, in general, allow sufficient time for observation of interaction in play among the children. Twelve minute observations were impractical since groups began to disintegrate during the latter part of the period. The decision was made after trying observations for the foregoing periods, to concentrate on groups of children for ten minute intervals. Seven individual time samples were taken for each subject in the research population, yielding to

70 minutes of observation time per child.

It was found during the pilot study that it was common practice for the children to move their play to various locations, depending on the activity. The investigator decided therefore, to follow the subjects under observation when necessary. Remaining stationary for an observation often meant that the investigator had to terminate an observation before its completion as children moved out of focus. On the other hand, the investigator discovered that following a group of children did not interfere with the activities because the children had become accustomed to the investigator walking around the classroom "mumbling" into the tape recorder; the machine was sufficiently sensitive to enable the investigator to use a soft voice in recording; the investigator could follow the children from a distance discrete enough to avoid the impression of pursuit. If, as happened in one instance, the children reacted to the investigator's following them, the observation was cancelled and a new subject selected.

During the pilot study the criteria for commencing and terminating an observation were established. The order of observation was determined by a pre-arranged list of the children's names that varied systematically from day to day.

Data Gathering. Observation of individual children were then made according to their position on the list. If the child whose name appeared at the top of the list met the other criteria for observation the sampling commenced.

Requirements for Observation. A child whose name appeared at the top had to meet the following criteria before the sample could be taken: (1) He had to join or be joined by two or more children. If one minute after the child had been selected for observation he or she did not attempt to, or was not joined by other children for play, the investigator put an "S" for solitary or "U" for unoccupied (whichever applied), beside his or her name and chose another subject. (2) The child had to engage in spontaneous (free) play. At various times during the free play period, the teacher called children to paint, do woodwork, sew, make pictures or practice lacing. A child thus engaged would not be eligible for sampling. If a child did not fulfill all the requirements for an observation that child was left and the one next on the list was evaluated for observation. Selection of a child was always made from the top of the list with the investigator working down until all samples were obtained.

By pre-arranging the list of children to be observed at each session, the investigator ensured that spectacular behavior on the part of a given child would not be a factor in the transition from group to group. To further guard

against errors of sampling, the free play period was divided into ten minute intervals so that so far as possible, each child was seen in his or her group for the first ten minutes of play time, the second ten and so on to the seventh ten minutes. The free play usually went from 9:00 - 9:20 and about 9:35 - 10:30 in the mornings. In the afternoons this session lasted from 12:30 - 12:50 and from 1:05 - 2:00.

Following are the circumstances in which an observation was terminated and cancelled. (1) If the child entered the bathroom. (2) If the child had to leave his or her group for specialized work with the teacher. (3) If the child became overtly aware and reacted to the presence of the observer. (4) If the child was approached and given directions by an adult.

With a subject selected, the observer unobtrusively followed the child to his or her place of play such as the toy corner. If the child met the criteria for observation, the investigator recorded the names of the other children in his or her group and activated the stopwatch as she spoke into the tape recorder the interactions of the children. At the end of the sample period, the observation was terminated.

When all samples for the children in the population had been taken, the data recorded on tape were transcribed. The transcription included notation of the activities in which the child was engaged and the duration of such



activities, a recording of the nature of the interaction, and things the child said as he or she played were noted. A notation was also made of the number and names of the children in each group observed.

A sample transcription is included in Appendix A.

After all the samples had been transcribed, the transcriptions were coded. A list of the categories formulated for group interactions is presented in Table 3.1 and the form used in coding is contained in Table 3.2. The first section of Table 3.2 records information concerning the means that children use to get into a group. The second section contains coding as to how children incorporate others into their groups, while the third section contains coding as to the differences that children demonstrate in their participation in play.

Selection of the Observational Method. The observational method was chosen for this study because it was expected that this method would yield information not as readily accessible through controlled, laboratory studies. In direct observational studies, no planned arrangements stand between the investigator and the target phenomenon. Rowen (1973) made the foregoing suggestion along with the fact that recording of data should follow the observation closely.<sup>1</sup> Rowen's method of observational research was employed as a basis upon which the methodology was developed for the current study. Additional information on and support for the use of observational studies came from other writers.

Table 3.1  
Categories for Peer Group Interactions

I. Means or Techniques of Getting Into a Group (GG).	(1) Demonstration of strength or agility (De). (2) Imitation of other children in a group (Im). (3) Requesting verbally to join a group (Re). (4) Commenting on the activities of group members (Co). (5) Inviting others to form a group (In). (6) Displaying toys or other objects (Di).
II. Means or Techniques for Incorporating Others in Groups (IO).	(1) Calling verbally or by gesture (C). (2) Showing off the activities or toys of the group (S). (3) Assigning a role to an outsider (A). (4) Granting an outsider's request for membership (G).
III. Participation in Groups (PG).	(1) Solitary play (Sp). (2) Onlooker play (Op). (3) Associative sharing (Ash). (4) Associative helping (Ah). (5) Associative asserting (Aas). (6) Cooperative sharing (Cs). (7) Cooperative helping (Ch). (8) Cooperative asserting (Cas).

Key

Associative sharing  
= Loosely organized around a common activity with a feeling of mutuality

Associative helping  
= Playing in loose organization where a subject asks or is asked for information or material

Associative asserting  
= Loosely organized around a common activity in which a subject seeks attention or admiration

Cooperative sharing  
= Play with a sense of belonging to a group with a leader and feeling of mutuality

Cooperative helping  
= A subject asks for or is asked for help in a group bonded by mutuality

Cooperative asserting  
= A subject seeks attention in a group with assigned roles.

Table 3.2  
Coding Form

Names*	Sex	Getting Into Group (GG)	Incorporating Others (IO)	Participating in Groups (PG)
1. Tulip	Boy	De	S	Ah
2. Rose	Girl	De	C	Aas
3. Fern	Boy	Co	G	Ash
4. Daffodil	Boy	Ap	A	Cas
5. Gladioli	Girl	Im	S	Cas
6. Hibiscus	Boy	Di	G	Ch
7. Daisy				
.				
.				
.				
.				
30.				

\*Pseudonyms used to conceal identity of subjects

Isaacs (1930) in studying the intellectual growth of young children, obtained the data through an observational study of the children's spontaneous play. Isaacs wrote that watching the spontaneous cognitive behavior of a group of children, under conditions designed to further free inquiry and free discussion, may reveal facts which would scarcely yield to the direct assault of tests or experimentation.<sup>2</sup> The present investigator developed questions to explore the nature of the social interactions of preschool boys and girls engaged in spontaneous play. Mussen (1960) cited Goodenough (1928), Thomas (1929,1933) and Arrington (1939), as supporting the use of observational studies for the purpose of establishing norms. Mussen stated: "Norms based on direct observations of spontaneous behavior may have greater validity than those established by tests or other interference techniques".<sup>3</sup>

Summary of Design and Methodology. This observational investigation consisted of recording the behavior of children during selected time periods, and analyzing the data obtained. The data were classified so that conclusions could be drawn.

Data-Gathering Instrument. The instrument used to collect the data was a Sony portable tape recorder. The suitability of this instrument was explained in the section entitled "Pilot Study". The transcription sheet (see Appendix A) on which was recorded at the beginning of each observation

the name of the child being observed, the names of other children in the group, and the date and time of sampling, was a supplementary data gathering instrument. At the end of each day's observations, the data recorded on the tape recorder were transcribed to complete on the transcription sheet.

Classification and Scoring of the Data. An observational study which plans to use data for interpretive conclusions must be aware of those limitations of reliability and validity inherent in the procedures employed in the data gathering, data classifying, and data treatment. The experienced, qualified observer methodology of data gathering is an established technique in child development research. The technique is the basic tool for much of the research cited in Chapter II of this dissertation. The experience gained by the research-observer during the pilot study, her professional experience in the development field, and her extensive training in early childhood education were enough to establish her as a reliable observer.

For the present research, some categories were formulated and others were adopted from previous investigations to classify the interaction of the preschool children in spontaneous (free) play. The pilot study was used as a means of establishing these categories as valid representations of the behavior of these four and five year old

children as well as the professional credibility of the authors in human growth and development who originally employed the categories in observational research. These categories were:

I Techniques (means) used for gaining entrance to a group (GG) recorded in Table 3.1.

II Strategies (techniques) used to incorporate other children into existing groups (IO) recorded in Table 3.1.

III Differences in the way children participated in group (PG) shown in Table 3.1.

The strategies or means used for group interaction were coded (see Table 3.1. For example De = "Demonstration of strength or agility"; C = "Calling verbally or by gesture"; Ash = "Associative sharing"). These codes were inserted appropriately in the interaction column on each child's transcription form (see Appendix A).

On completion of the coding, all samples were scored so that the data could be analyzed. The raw data were converted to abbreviations and these were assigned arbitrary numerical quantities so that the statistical analysis could

be undertaken. Following is the description of the scores based on the research question and the play categories used:

(1) Means of Getting into group (GG)

Demonstration of strength or agility (De).

Imitation of other children in group (Im).

Request verbally (Re).

Commenting on the activities of group members (Co).

Appointing oneself as a group member (Ap).

Inviting others to form a group (In).

Displaying the toys or other objects (Di).

De = 1, Im = 2, Re = 3, Co = 4, Ap = 5, In = 6, Di = 7.

(2) Incorporating others into group (IO)

Calling verbally or by gesture (C).

Showing off activities (S).

Assigning a role to an outsider (A).

Granting outsider's request for entry (G).

C = 1, S = 2, A = 3, G = 4.

(3) Differences in participation (PG)

Solitary play (Sp).

Onlooker Play (Op).

Associative sharing (Ash).

Associative helping (Ah)

Associative asserting (Aas).

Cooperative sharing (Cs).

Cooperative helping (Ch).

Cooperative asserting (Cas).

Sp = 1, Op = 2, Ash = 3, Ah = 4, Aas = 5, Cs = 6,  
Ch = 7, Cas = 8.

The data were collected over a five week period. There were forty hours of time sampling of childrens' interactions in spontaneous play situations. The procedures for the data analysis included the selection of appropriate information from the information sheets so that the research questions could be tested. The information was converted to percentage data for the analysis.

### Summary

In this chapter, the research design, the setting, population and methodology were described. The objectives and results of the pilot study were specified. The study included 30 children ages four and five, from a cooperative preschool in Michigan. Timed observations of the children engaged in spontaneous play were undertaken to obtain evidence on the differences in the social interactions of preschool boys and girls. A systematic method was used to gather the data. These data organized into meaningful units and used to test the three research questions. In Chapter IV which follows, the research analysis is presented.



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### CHAPTER III

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## CHAPTER IV

### ANALYSIS OF THE DATA

In this chapter the results obtained for each research question are presented. Where necessary, additional discussion of the methodology used in analyzing the data is included.

The Chi-Square Test for homogeneity was appropriate for this study since the data were categorical and nominal. The independent variable of sex was cross tabulated with three dependent variables: Means or strategy of getting into a group (GG), Means or technique of cooperating with others in a group (IO) and difference in participation (PG). The complete data are indicated in Tables 1-4. The researcher decided from the outset of the study that if in the samples a difference was found which exceeded the alpha level of .05, this would be interpreted as a significant difference. The level of significance (or p value) for statistical tests was arbitrarily set at .05 because:

- (1) only 30 subjects were tested in the research project;
- (2) there were 3 tests and by using the .05 level, the research would be better able to control the error rate.

This seemed reasonable since the error rate would be just 15%.

## Research Questions

### Question One

Is there a difference between the way that boys find a means to get into a group and the way that girls find a way to get into a group?

There were seven categories or means of getting into a group:

1. Demonstration of strength or agility (De).
2. Imitation of other children (Im).
3. Requesting verbally to join a group (Re).
4. Commenting on the activities of group members (Co).
5. Appointing self as group member (Ap).
6. Inviting others to form a group (In).
7. Displaying toys or other objects (Di).

From the results of the Chi-Square Test for homogeneity the Raw Chi-Square:  $x^2 = 4.487$  with six degrees of freedom was obtained. No significant difference was found at the level of significance of .05. To reach significance a  $x^2$  of .6110 was needed. This suggests that there is little if any difference between the ways boys find means or strategies to get into a group and the ways that girls find strategies to get into a group.

Of the thirty subjects sampled, 15 were boys and 15 were girls. The 210 observations were equally divided among the subjects, each subject being observed seven times.

Therefore there were 105 "boy observations" (hereafter referred to as "boys"), and 105 "girl observations" (hereafter referred to as "girls"). The data in Table 4.1 indicate that 11 or 10.5% of the "boys" showed the use of "Demonstration of strength or agility" to gain entrance to a group. Of the 105 "girls" sampled, 7 or 6.7% used "Demonstration of strength or agility" as a technique of getting into a group. Of the total number of subjects that used this means, 61.1% were "boys" and 38% were "girls".

From the 210 observations made there was a yield of 8.6% for the use of this method. Of this percentage 5.2% were "boys" and 3.3% were "girls".

Boys most frequently used "Appointing of the self as group members" as a strategy of gaining entrance to a group. Of the 105 observations which covered seven means of group entrance, "boys" used "Appointing of the self as group member" 29 times or 25.7% of the observations on this variable. "Displaying of toys and other objects" was the method least used by boys to gain entrance to a group. Only 7.6% of the "boys" used "Displaying of toys and other objects" as a means of getting into a group.

As with boys, the girls used "Displaying of toys and other objects" least as a method of group entrance. Only 3.8% of the total number of observations of "girls" showed a use of this technique. On the other hand, the means most frequently used by girls to get into a group was "Imitation

Table 4.1  
Means of Getting into a Group

	MEANS	De	Im	Re	Co	Ap	In	Di	ROW TOTAL
		1	2	3	4	5	6	7	7
BOY 1	Observations	11	17	16	14	27	12	8	105
	Row %	10.5	16.2	15.2	13.3	25.7	11.4	7.6	50.0
	Column %	61.1	40.5	45.7	53.8	52.9	46.2	66.7	
	Total %	5.2	8.1	7.6	6.7	12.9	5.7	3.8	
GIRL 2	Observations	7	25	19	12	24	14	4	105
	Row %	6.7	23.8	18.1	11.4	22.9	13.3	3.8	50.0
	Column %	38.9	59.5	54.3	46.2	47.1	53.8	33.3	
	Total	3.3	11.9	9.0	5.7	11.4	6.7	1.9	
	COLUMN	18	42	35	26	51	26	12	210.0
	TOTAL	8.6	20	16.7	12.4	24.3	12.4	5.7	100.0

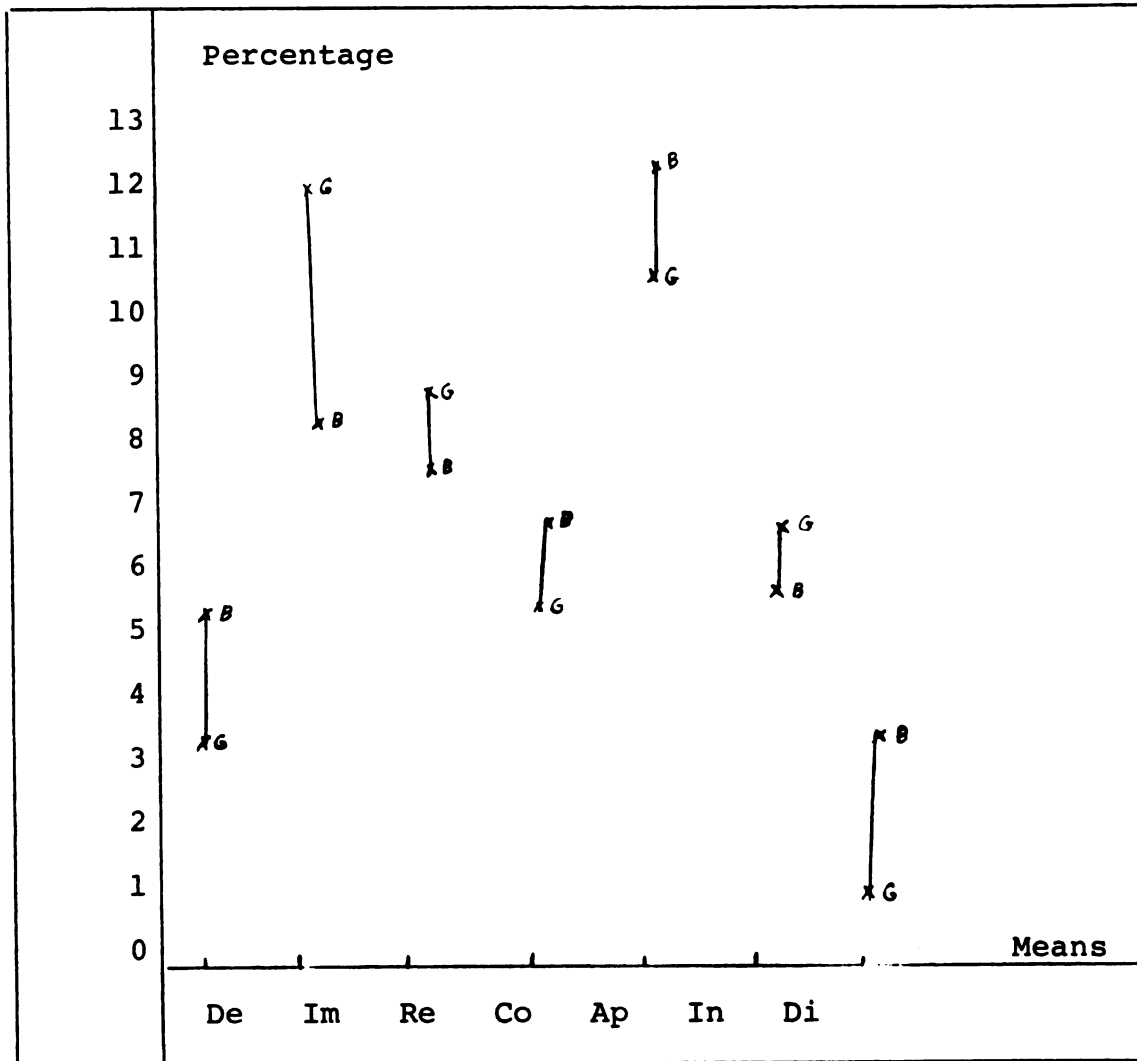
RAW CHI SQUARE = 4.48734 6 degrees of freedom. SIGNIFICANCE = 0.6110

of others". The data presented in Table 4.1 indicate that 25% of the "girls" (each observation of a girl is counted as one unit, hence there were 105) or 23.8% used "Imitation of others" to gain entrance to a group.

The data in Table 4.1 indicate a negative answer to sub questions (a) and (b) of Research Question One (see Chapter I). No difference was found between boys and girls in their use of props to get into a group. Although girls tended to use verbal request more frequently than boys, the difference between the kinds of utterances that helped boys gain entrance to a group and the kinds that helped girls was not significant.

The graph in Figure 4.1 shows, in addition to substantiating the foregoing, that boys and girls used a similar pattern of means to enter a group. The strategy least used by boys and girls was "Displaying toys and other objects". This yielded a total of 5.7% of the 210 observations. The means most frequently used by boys and girls together was "Appointing the self as group members" which totalled 24.3% of the 210 observations, 12.9% being for boys and 11.4% being for girls. The difference between the boys' use of "Commenting on the activities of group members" as a means of getting into a group and the girls' use of this method was 1%. Boys used "Commenting on activities of group members" for 6.7% if the total observations and girls used this technique for 5.7%.

## Means of Getting into a Group



B = Boys

G = Girls

Figure 4.1

Question Two

Is there a difference between the way that boys incorporate other children into existing groups and the way girls incorporate other children into existing groups?

In order to organize the data relevant to this question, four categories were formulated by which a subject could make another a member of a group:

1. Calling verbally or by gesture (C).
2. Showing off the activities or toys of the group (S).
3. Assigning a role to an outsider (A).
4. Granting to an outsider his request for membership in the group (G).

The tabled or Raw Chi-Square with three degrees of freedom obtained at an alpha level of .05 was 2.755 testing for homogeneity. No significance was found at the level of .05. To reach significance a  $\chi^2$  of .5995 was needed. This suggests that there is no overall difference between the way that boys incorporate other children into existing groups and the way that girls incorporate others into existing groups.

The data presented in Table 4.2 indicate that of the 104 "boys" 22 or 21.1% of them used "Granting to outsiders their request for group entry" as a means of incorporating others into an existing group. Among the "girls" there were 24 or 23.1% who used this method to



Table 4.2  
Incorporating Others Into Group

	MEANS	C	S	A	G	ROW TOTAL
		1	2	3	4	4
BOY 1.	Observations Row % Column % Total %	32 30.8 59.3 15.4	29 27.9 48.3 13.9	21 20.2 43.8 10.1	22 21.1 47.8 10.6	104 50.0
GIRL 2.	Observations Row % Column % Total %	22 21.1 40.7 10.6	31 29.8 51.7 14.9	27 26.0 56.3 13.0	24 23.1 52.2 11.5	104 50.0
	COLUMN TOTAL	54 25.9	60 28.9	48 23.1	46 22.1	208 100

RAW CHI SQUARE = 2.75548 with 3 degrees of freedom  
SIGNIFICANCE = 0.5995

bring other children into a group. Of the total number of subjects that used this technique to incorporate other children into a group, 10.6% were "boys" and 11.5% were "girls". It is indicated in the data presented in Table 4.2 that the means least frequently used by boys to bring in new group members was assigning of a role. Of all the "boys" 21 or 20.2% used this strategy. The yield from all observations was therefore 10.1%.

The means most frequently used by boys to bring other children into their groups was "Calling verbally or by gesture". Of the 104 units which used four strategies to incorporate other children into an existing group "boys" used "Calling verbally or by gesture" 32 times or for 30.8% of the observation on this variable. "Assigning of a role to an outsider" was the means least used by boys to bring other children into a group. Of the 104 "boys" 20% used this technique to gain new group members.

Unlike boys, the method used least by girls to incorporate other children into existing groups was "Calling verbally or by gesture". Of the 104 observations on the girls the data showed a use of 21.0% for this strategy. The means that girls used most frequently was "Showing off the activities or toys of the group". Of the 104 "girls" 31 or 29.8% used this means. There was a yield of 14.9% for girls using "Showing off the activities and toys of the

group" from the total 208 observations, i.e., (104 "boys" and 104 "girls").

As is indicated in the data in Table 4.2 there was a difference in the frequency of language that boys used to incorporate children in the groups and the frequency of language that girls used to incorporate children in their groups. But the approximately 10% difference (30.8% - 21.1%) does not reach the level of significance. The data indicate no difference in answer to the question (b) on the difference between the kinds of utterances that help boys gain entrance to a group and the kinds of utterances that help girls.

The graph presented in Figure 4.2 shows the pattern of the strategies used by both boys and girls to incorporate other children into existing groups. The means most frequently used by boys was "Calling verbally or by gesture" but it was the technique least frequently used by girls. In both groups there was a more frequent use of "Showing off the activities and toys of the group" than there was of "Assigning roles to an outsider" and boys used both means less frequently than girls did. For girls, "Granting an outsider's request for group entry" was used less frequently than "Assigning of roles to an outsider" while for boys the reverse is true. However, boys used "Granting an outsider's request for group entry" and "Assigning of roles to an outsider" less frequently than girls used these two means to incorporate others in a group.

## Incorporating Other Children into Group

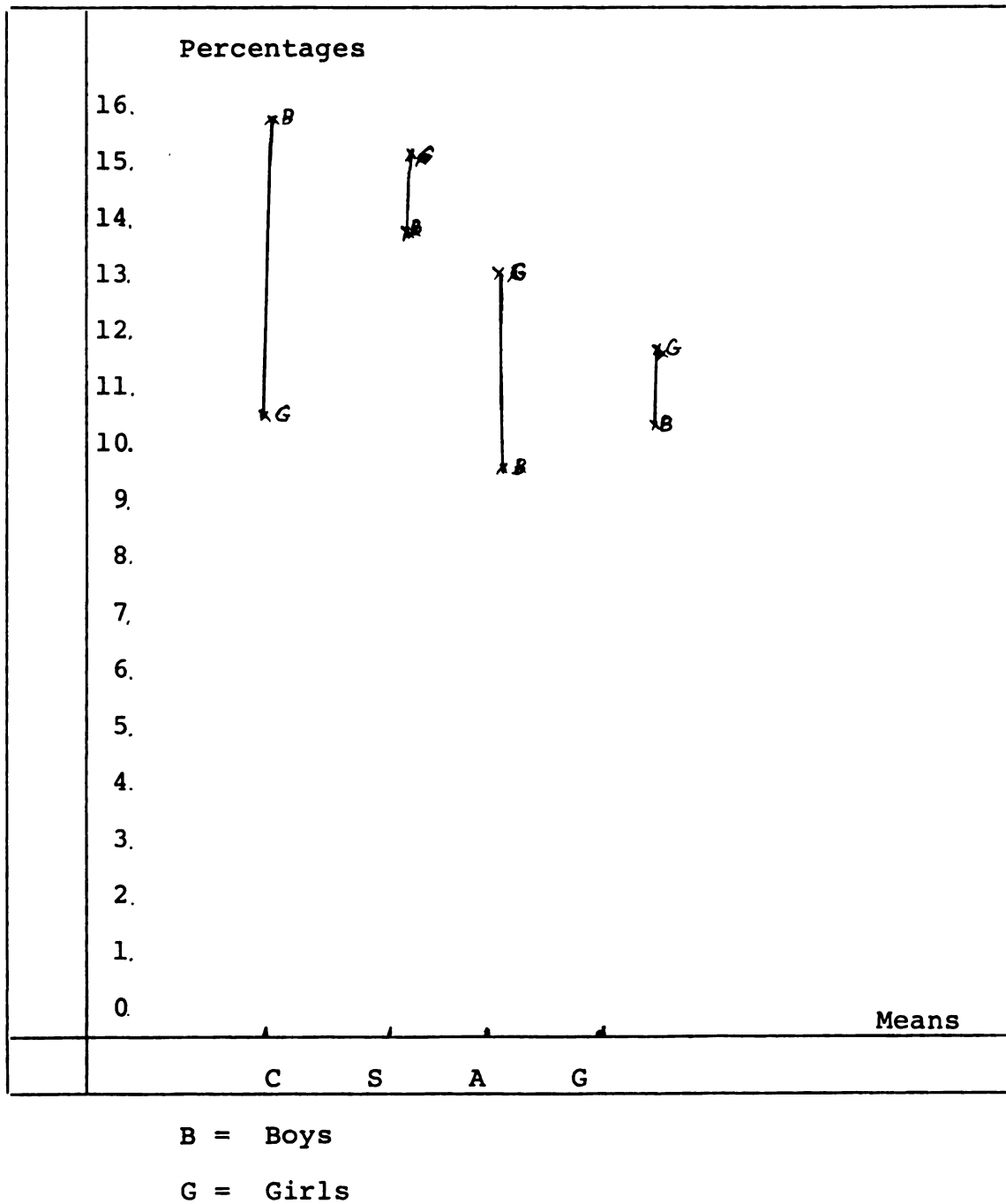


Figure 4.2

The graph shows that the difference between the strategy used most frequently by girls, "Showing off activities and toys of the group" and the means used least frequently, "Calling verbally or by gesture" to incorporate new group members was 9%. The difference between the means most frequently used by boys, "Calling verbally or by gesture", and the technique least frequently used, "Assigning a role to an outsider" was 11%. This is an example of the similarity in the patterns of means used by both sexes.

### Question Three

Is there a difference between the way that boys participate in group activities and the way that girls participate in group activities?

Eight means of group participation were categorized:

1. Solitary play (Sp).
2. Onlooker play (Op).
3. Associative sharing (Ash).
4. Associative helping (Ah).
5. Associative asserting (Aas).
6. Cooperative sharing (Csh).
7. Cooperative helping (ch).
8. Cooperative asserting (Cas).

The subjects did not use the first two strategies.

From the results of the Chi-Square Test for homogeneity was obtained the following value: Raw Chi-Square is equal to 12.708 with five degrees of freedom. The observed  $\chi^2$  of .0263 exceeded the tabled  $\chi^2$ . At the level of .05, significance was found, suggesting a difference between the way that boys participate in groups and the way that

girls participate in groups.

The data presented in Table 4.3 indicate that 21% of the "boys" used "Associative sharing" as a means of group participation while only 12.4% of the "girls" did. From the total 210 subjects sampled only 10.5% were boys using "Associative sharing" and 6.2% were girls who did.

For boys the technique of participation most frequently used was "Cooperative asserting". Of the 105 "boys" 32 or 30.5% used this means of group participation. Of the 210 units observed in group participation, 15.2% was the yield for "boys". The strategy of participating in groups that boys used least frequently was "Associative asserting". Only 3 or 2.9% of the "boys" used this means. The data presented in Table 4.3 indicate that of the total (210) observations on group participation there was only 2.4% of "boys" who used "Associative asserting" as their means of participation.

Similarly for girls the means of participating in groups that was least frequently used was "Associative asserting". Eight or 7.6% of the "girls" participated in their groups through this strategy. From the total observations of boys and girls, the data presented in Table 4.3 indicate a 3.8% use of "Associative asserting" by "girls" as they incorporated other children into their groups. On the other hand, the means of participation that girls used most frequently was "Cooperative helping".

Table 4.3  
Difference in Participation

	MEANS	Ash	Ah	Aas	Csh	Ch	Cas	ROW TOTAL
		3	4	5	6	7	8	6
BOY 1	Observations	22	5	3	24	19	32	105
	Row %	21.0	4.8	2.9	22.9	18.1	30.5	50.0
	Column %	62.9	26.3	27.3	50.0	42.2	61.5	
	Total %	10.5	2.4	1.4	11.4	9.0	15.2	
GIRL 2	Observations	13	14	8	24	26	20	105
	Row %	12.4	13.3	7.6	22.9	24.8	19.0	50.0
	Column %	37.1	73.7	72.7	50.0	57.8	38.5	
	Total %	6.2	6.7	3.8	11.4	12.4	9.5	
	COLUMN TOTAL	35	19	11	48	45	52	210
		16.7	9.0	5.2	22.9	21.4	24.8	100.0

RAW CHI SQUARE = 12.70829 with 5 degrees of freedom. SIGNIFICANCE = 0.0263

From the 210 "girls" 26 or 24.8% used this technique as they participated in group play. This figure represented 57.8% of the subjects who used this means of group participation.

Further analysis of the data in Table 4.3 shows a marked similarity between boys and girls in their strategy of group participation. Both boys and girls used "Cooperative sharing" with equal frequency. There was 24 or 22.9% of "boys" and the same number of "girls" who used this means as they participated in their groups. Of the total number of observations, both "boys" and "girls" displayed an 11.4% usage of "Cooperative sharing" as a means of group participation. These results provide an answer to the question on the difference in the frequency of assertiveness used by boys and the frequency of assertiveness used by girls. There is no difference in the frequency of sharing demonstrated by boys and the frequency of sharing demonstrated by girls. The two categories used to measure the sharing dimension in the play of boys and girls were "Associative sharing" and "Cooperative sharing".

But this is the only similarity demonstrated by boys and girls in their group participation. The data presented in Table 4.3 provides the answer to sub question (a) of Research Question Three. Two categories were combined to constitute the assertiveness of the subjects. These categories were "Associative asserting" and "Cooperative asserting". In their group participation, three boys (2.9%)



used "Associative asserting". This figure represented 27.3% of the total subjects who used this means of group participation. The remaining 72.7% was for girls in as much as "Associative asserting" was the strategy least frequently used by these "girls" in group participation. The girls still used this means much more frequently than the boys did. The data indicate that there is a difference in the frequency of assertiveness used by boys and the frequency of assertiveness used by girls. As mentioned previously, the technique of group participation most frequently used by boys was "Cooperative asserting". Of the total subjects who used this means 61.5% were boys. Girls were the remaining 38.5%. Only 20 or 19.0% of all the "girls" used this technique of group participation. Of the 210 observations 9.5% were "girls" using "Cooperative asserting".

The graph presented in Figure 4.3 shows the pattern used by boys and girls during their group participation. The means of participation most frequently used by boys was "Cooperative asserting" but this strategy ranked third for girls. The means most frequently used by girls was "Cooperative sharing" which ranked fourth on the list of techniques used by boys in group participation. Both boys and girls used "Associative sharing" more frequently than they did "Associative asserting", "Associative helping" and "Associative sharing". But boys used "Associative sharing"

## Differences in Participation

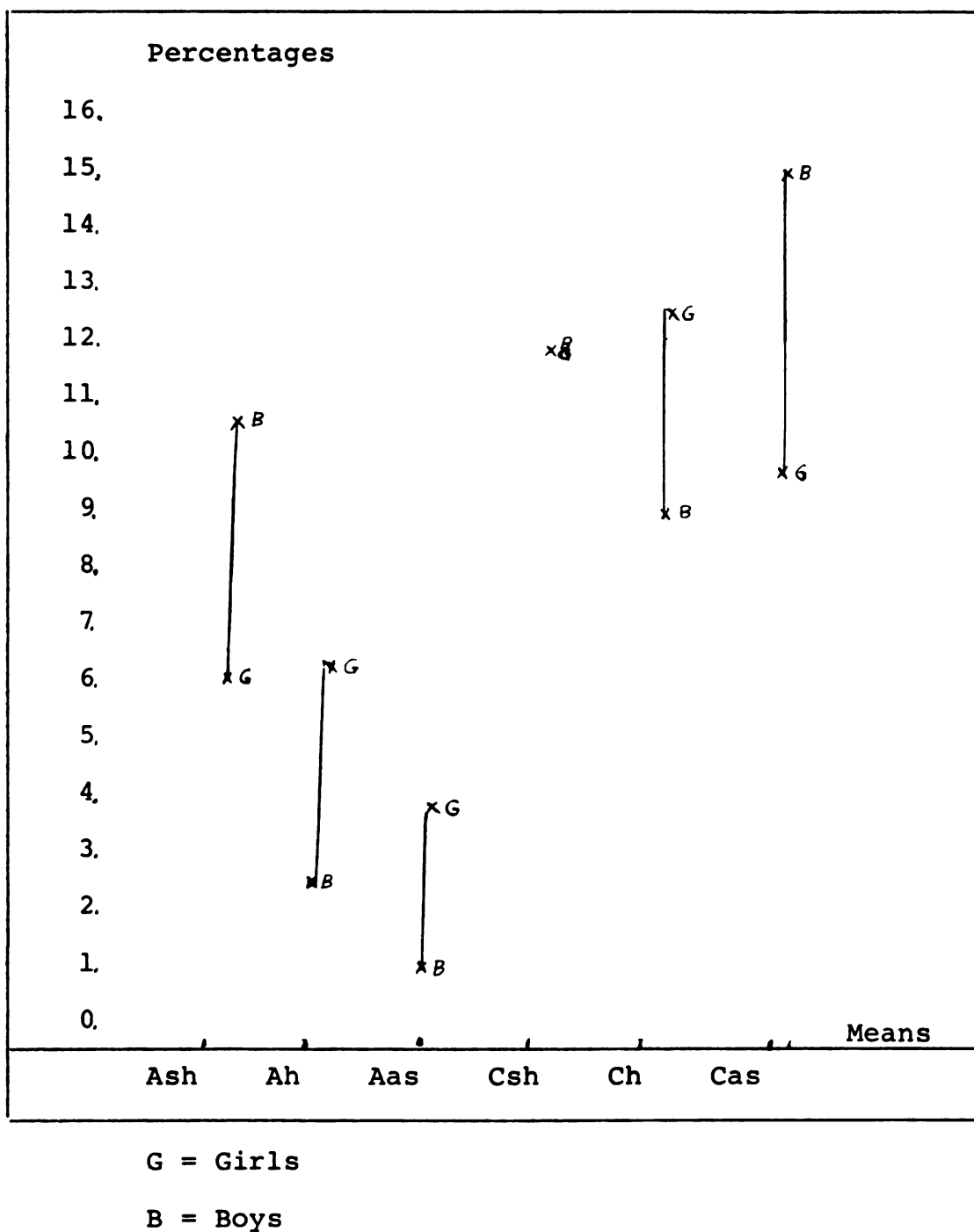


Figure 4.3

more frequently than girls did.

In girls' play, there was a more even distribution of the strategies of group participation than there was in boys' play. The graph in Figure 4.3 shows that the highest percentage for girls was 12.4% and the lowest was 3.8%. The highest percentage for boys was 15.2% and the lowest was 1.4%. There was a significant difference in the way that boys participated in groups and the way that girls did.

### Summary of Results

Two of the Research Questions received a sign of no difference. Although in the use of strategies for incorporating others into a group, a difference was found between boys and girls, no significance was reached. On the other hand, the question on participation in groups received a sign in the affirmative. In one minor instance, no difference was found between the two groups but this could not maintain significance on comparison with six other techniques. There was an overall difference between the two groups. In general, preschool boys and girls were found to be similar in: (1) the way they find a means to get into a group, and (2) the way they incorporate other children into existing groups. Preschool boys and girls were found to be different in the way they participate in play groups. The data in Table 4.4 offer a summary of the results.

Table 4.4  
Chi-Square Test for Homogeneity in the Sexes

	$\chi^2$	Degrees of Freedom	Significance
Means of Getting into Groups	4.487	6	.6110
Incorporating Others	2.755	3	.5995
Participation in Group	12.708	8	.0263*

\*  $\chi^2$  is significant at .05 level of significance

## CHAPTER V

### DISCUSSION AND CONCLUSIONS

In this section, the conclusions and generalizations of the study are discussed and recommendations for further research are given. The subject of this dissertation was young children's spontaneous play with their peers. In an effort to determine the degree of difference in the social interactions of preschool boys and girls, the freeplay activities of four and five year old children in a private cooperative nursery school in East Lansing, Michigan were studied. Analysis of the results revealed, in some respects, a lack of significant difference between the interactions of boys and girls on two factors of interest: (1) means of getting into a group; (2) means of incorporating others in a group. A significant difference between boys and girls was found on one factor: the way that boys and girls participated in groups.

#### Discussion of Findings

The results of this research were in general accord with the findings of some previous studies on the sociability of preschoolers. Wenar (1971) suggested that the preschooler demonstrates a proliferation of social behavior.<sup>1</sup> Wenar further stated that they are attracted to qualities which

facilitate interaction: cooperativeness, respect for property and compliance. Finally, and most important, sociability depends on the capacity for giving to another child, whether it be tangible things or helpful services.<sup>2</sup> The children in this investigation engaged in meaningful social interactions which showed an enjoyment of cooperative play. Their freeplay was marked by the children's interest in incorporating other boys and girls into existing groups. Piaget (1962) found this to be true and stated that the child (preschooler) is less egocentric and more sociable.<sup>3</sup> In elaboration of Piaget's view, Almy (1967) indicated that girls and boys learn more from their peers whose views are somewhat closer to their own, than from adults, who...may be expected to be more logical.<sup>4</sup> It was also found in this investigation that boys and girls imitate adult activities. Tanner (1978) found that both boys and girls of preschool age imitate such matter-of-fact actions as going to the store and family life.<sup>5</sup>

In more specific areas of interest, this investigation was in accord with previous findings. Wenar (1971) stated that the preschooler used various means to become a member of a group. Among these were demonstration of strength or agility and imitation of another child. According to Wenar, imitation can be the initial step in becoming a group member.<sup>6</sup> Sutton-Smith (1971) gave an extension of Wenar's view, referring to the way that children smile,

giggle and make an exaggerated gesture. They use mainly ludic techniques (a mock attack or a stunt) to get into each other's play territory.<sup>7</sup> The foregoing commentaries support the findings which Parten made years before in the course of her extensive study of preschoolers' play. Parten (1932) noted six different techniques used by both boys and girls to gain entrance into a play group.<sup>8</sup> The present research employed Parten's techniques as categories for observation. The children in this study used only the techniques developed by Parten to gain entrance to a group. The present observational research discovered no other techniques employed by the children to gain entrance to a group.

Parten (1932) reported from her investigation (and Sutton-Smith, 1971 agreed) that there was no difference between boys and girls in the techniques used to gain entrance to a play group. She stated that preschoolers usually played in groups of three or four or five.<sup>9</sup> The present research obtained results which offered evidence that there was little difference between the way that boys find a means to get into a group and the way that girls find a means to gain entrance to a play group.

The data from the present investigation offered evidence that the strategies used by boys and girls to incorporate others into play groups do not differ. Erikson (1972) made insightful observations of children's play in

which there is a need for companions.<sup>10</sup> Several authors attested to the similarity of social collaboration in the play of preschoolers. Along with Piaget, Millar and Almy, Arnaud (1971) seemed to feel that boys demonstrated in the same way as girls, their need for peer relationships in spontaneous play.<sup>11</sup> There were no discrepancies between previous research and the present investigation, on the matter of the similarity in the means used by boys to incorporate other children into groups and the strategies employed by girls to incorporate others into groups.

However, the present study did not concur with all the findings of previous investigators on the way that boys and girls participated in play groups. Wenar (1971) seemed to feel that preschool boys and girls alike were sharing and cooperative in their play with peers.<sup>12</sup> And the classic extensive study of Parten seemed to suggest that preschool boys were the same as girls in their use of the techniques of group participation in freeplay (see Table 4.3). In all but one of the categories classified for social participation, the present investigation was at variance with previous research, in that no difference was found between boys and girls in their use of "Cooperative sharing" as a technique of participating in group play. In general, however, the data did afford evidence that there is a difference between the way that boys participate in group activities and the way that girls participate in group activities.



Implications for Program Development  
and Research

The findings of this investigation have programatic as well as educational implications. First, the time allotted each day for spontaneous unhindered peer interaction in play is noteworthy. The teachers were always available to assist the children but the latter were granted the privilege to create and solve their own problems; they had the opportunity to explore, discover, fail and succeed; they could develop peer relationships. Perhaps the similarities and differences found in the social interactions of these children were due largely to the amount of time they were permitted to engage in freeplay.

Secondly, parents of both sexes assisted the class teacher. This has implications for the staffing of nursery schools. Neither the teacher nor her assistants imposed any pressures on the children to engage in "typically sex-appropriate activities" or to use any toys labelled male or female. An abundance of toys and equipment were provided and the staff was supportive of each child's choice of these and of playmates. A boy was as free to play nurse or stenographer as a girl was to play race-car driver or road builder. Perhaps the teacher and parents were more aware of sex role expectations, and were particularly careful especially with an educated group such as East Lansing.

The present investigator knows nothing of the kinds of sex typing if any that went on in the homes of the preschoolers who were studied. To collect such information was beyond the scope of this observational study. It may be assumed that due to the nature of a cooperative nursery, the program of this nursery school is in general philosophical agreement with the views of the parents regarding sex role typing.

In addition to the implications for program development, this investigation has implications for further study into the play of preschool children. Naturally, this research generates a need for replication. A similar setting must be available in another community where the sample could be drawn from middle class children.

This study derived its data from observation of the indoor freeplay of preschool boys and girls. It may be beneficial to study outdoor freeplay of a similar population. This could provide an examination of teachers' attitudes towards and provisions for the outdoor spontaneous play of the children. An assessment could be made of how these influence or affect the social interactions of the children. For certain elements may enter into outdoor play which do not exist in indoor play.

### General Conclusions on Sex Differences

This observational study and previous research have indicated that one of the variables affecting the play behavior of preschool children is sex. In many societies of the western world differences in the play of boys and girls are not just expected but actively encouraged. Maccoby and Jacklin (1974) state that parents are likely to buy sex-typed toys for their children (for example dolls or cookstoves for girls and trucks or electric trains for boys) and that these toys can have a long term effect on the sex-typing of the children.<sup>13</sup> But a great deal of the literature reviewed indicated that boys and girls are similar in their social interactions. The present research discerned sex differences in the play interactions of preschool boys and girls. Many four and five year old boys engaged in romping activities and many of their female peers tended to play house as a great deal of the literature suggested. But no global statement can be made concerning sex differences. In some instances in this research preschool boys and girls demonstrated no significant difference in their social interactions while in other instances a significant difference was observed in the play of these boys and girls. Perhaps the methodology and instrument employed were not sophisticated enough to discern fully sex differences in the play of boys and girls.

Getting into groups is the beginning of certain types of activities like cooperation and sharing. The children in the present study displayed cooperative behavior as they joined their efforts to reach mutually desirable goals. Such a finding concurred with the views of several writers who made mention of the preschooler's love for and demonstration of cooperation, social collaboration, sharing and caring in group play. Only one of the children studied engaged in solitary play for one and a half minutes of her 70 minutes of observation time, and the same child engaged in onlooker play for one minute of the 70 minutes of observation time. As the children in the present study played, they demonstrated their development in the use of socialized speech. They used social speech, in accord with the literature reviewed, to solve problems, share experiences, direct activities and make requests. An interesting example of a request was one girl's question "B, can I be your wife and cook dinner and have a baby?" The child's social speech was not without some aggression. Most of the verbal aggression was demonstrated by girls, as some authorities purported. But contrary to the literature, the few demonstrations of physical aggression observed in the present study were made by more girls than boys.

A detailed analysis of what children say in their play groups and how this affects their interaction would be valuable. The present investigation measured the frequency with which boys and girls used language for a specific purpose and the differences between the kinds of utterances that help boys gain entrance to a group and the kinds that help girls. It was observed in the pilot study as well as the research that speech itself as Cazden (1972) purported, can define a situation and change it for the participants - as when during dramatic play a child says "You be the Mommy".<sup>14</sup>

Finally, this investigation examined the play of children who attended preschool at two different periods of the day - morning and afternoon. A study should be conducted comparing the freeplay social interactions of boys and girls who attend nursery school in the mornings and the interactions in spontaneous play groups of boys and girls who attend school in the afternoons. This could have implications for nursery school programs.

#### Final Observations

This observational research was designed to examine the social interactions of thirty preschoolers in relation to the independent variable of sex. In Chapter I the objectives of the study were outlined, the specific interest being to discern differences that may exist between the

behaviors of four and five year old boys and girls in a free (spontaneous) play setting. The literature cited in Chapter I attested that there is a need for intensive study of children's freeplay as it relates to their social and emotional development. This investigator could not glean much from previous research on the peer relationships of preschoolers.

In Chapter II, literature pertinent to the dissertation was reviewed. The literature suggested that preschoolers have social tendencies; the family, the school and peer groups sex-type young children in various subtle and overt ways; in spite of the sex-typing preschool boys and girls demonstrate no difference in their freeplay interactions with one another.

The preschools in this study were observed over a five week period during their spontaneous play sessions in order that evidence could be gathered concerning the differences if any in the interactions of boys and the interactions of girls. The independent variables of interest were (1) getting into groups, (2) incorporating other children into groups and (3) participation in groups. Observational data extracted from the children's verbal exchanges and physical activities in spontaneous play were collected, organized and analyzed for the purpose of discerning possible sex differences in the social interactions of preschool boys and girls. Within the scope of this

investigation certain conclusions seem justifiable.

I. There is little if any difference between the ways that boys find strategies to get into a group and the way that girls find means to get into a group. Of the thirty subjects sampled, fifteen were boys and fifteen were girls. The data revealed that boys used some techniques more frequently than girls (for example "Appointing themselves as group members") and girls employed some strategies more frequently than boys (for example "Requesting verbally") to gain entrance to a group. But the difference as indicated by the Chi-Square Test with an alpha level of .05 was not significant.

II. There is not much difference in the way that boys add new members to their groups and the way that girls incorporate others into group membership.

The children used four strategies to get non-members to join groups. The difference in the frequency with which boys employed some means to incorporate new group members and the frequency with which girls used these techniques was not statistically significant. For example, the greatest difference was in the use of "Calling verbally or by gesture" as a means of gaining new group members. Boys yielded a usage of 15.4% and girls demonstrated a usage of 10.6%. The findings of the present research in this and the preceding area of interest concurred with previous investigations on children's play.

III. Preschool boys and girls participate in somewhat different ways in play groups. The data revealed that boys and girls used "Cooperative sharing" (one of the techniques categorized in this research for group participation) with the same frequency. But the difference in the frequency with which the boys and girls employed the other five strategies categorized for participation in group play was statistically significant. Such a finding was at variance with the findings of a few previous investigations. It is critical to note that the present research set out to determine these differences in the frequency of technique usage, while such evidence was uncovered incidentally in the earlier studies.

This investigator agrees with those writers who report that spontaneous play settings allow greater freedom for the young child to express true preferences of toys and play partners than do laboratory or "test-like" settings.



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### CHAPTER V

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2. Ibid. p. 223.
3. Piaget, J., Play, Dreams and Imitation, p. 82.
4. Almy, M., Young Children's Thinking, p. 260.
5. Gibson, J., Growing Up, p. 302.
6. Wenar, C., Personality Development, p. 281.
7. Sutton-Smith, B., Child's Play, p. 104.
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9. Ibid. p. 281; Sutton-Smith, B., Child's Play, p. 105.
10. Erikson, E., "Play and Actuality", p. 154.
11. Arnaud, S., "Introduction: Polish for Play's Tarnished Reputation", p. 5.
12. Wenar, C., Personality Development, p. 269.
13. Maccoby, E. and Jacklin, C., The Psychology of Sex Differences, Stanford, California, 1974, p. 127.
14. Cazden, C., Child Language and Education, p. 201.



## APPENDICES

APPENDIX A  
SAMPLE TRANSCRIPTIONS

Sample Transcription

Date	Name	Inter- action	Others	No. in Group	Conversa- tion	Two Remarks	Activity	Duration
1978 3/19 9:50 a.m.	Rose	Re G Csh	Violet Pansy Gerber Fern	5	T	My dear you look beautiful. Can you make my hair as lovely as yours?	Beautician	m
4/20 10:20 a.m.		Co G Cas	Daisy Pansy Fern	4	T	I did not know your nurse was a male. Oh please don't charge so much.	Doctor	e
5/10 9:00 a.m.		Di A Cas	Gladioli Violet Tulip	4	T	Can I measure this for you? Ok you are the leader.	Waterplay	e
5/14 10:00 a.m.		Im C Ch	Tulip Fern	3	T	Let's go to the park. This is good food.	Picnic	v
		In G Csh	Violet Pansy Fern	4	T	I have a new doll. Come baby, eat up.	House	v

Key

E = Entire ten minutes of observation  
M = Most of the ten minutes

V = Very short time (three minutes or less)  
T = Talking

## Sample Transcription

Date	Name	Interaction	Others	No. in Group	Conversion	Two Remarks	Activity	Duration
1978 3/3 12:30 p.m.	Fern	Ap A Csh	Rose Tulip Ivy	4	T	All of us can hold. Go Tripper go.	horse back riding	e
3/13 12:50 p.m.		Co S Csh	Philanden- dendrum Gerber	3	T	You all are good. Oh let him help.	Playing	e
4/7 2:00 p.m.		Ap C Cas	Verbena Lily Ivy	4	T	Thanks for shopping here today sir. Do you need any help?	Super- Market	m
4/19 1:20 p.m.		Im S Ch	Daffodil Gerber Hibiscus Periwinkle	5	T	I have a deal. Let's go play in the tunnel and take turns and you be first.	Tunnel crawl	e

Key

Ap = appointing self as group member  
A = assigning role to outsider  
Csh = cooperative sharing

Co = commenting on activities  
S = showing off  
C = calling verbally or by gesture  
Cas = cooperative asserting  
Im = imitating others in group

**APPENDIX B**  
**PERMISSION LETTER**

PERMISSION LETTER

March 1, 1978

To the Parents of \_\_\_\_\_

I am doing a study approved by my Advisor, Dr. James Snoddy, Chairman of the Department of Elementary Education, Michigan State University. Your child's school has been randomly selected. This preschool is one of two participating in the study.

It is a study on children's play with their peers: how they interact. Your child has been randomly selected to participate. The only personal information required concerning your child is the birth date.

I will observe your child for forty two-minute periods during the free play sessions in the class. I will record what your child says and does during the observation period on a tape recorder.

Your child will remain anonymous in the study of 45 children. A report of the study will be available at the school.

If you have any questions please call me. I will be most appreciative of your child's participation.

Sincerely yours

Esther Green-Merritt  
M.S.U. Doctoral Candidate  
Phone: 355-9917

.....

Please indicate (X) whether you wish your child to participate, and return on or before \_\_\_\_\_

\_\_\_\_\_ My child may participate in the study. His/her birthdate is \_\_\_\_\_

\_\_\_\_\_ My child may not participate in this study.

Parent's Signature \_\_\_\_\_



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## BIBLIOGRAPHY

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