

HETEROSEXUAL SOCIAL COMMUNICATION  
INVOLVING CHILDREN OF MIDDLE  
CHILDHOOD YEARS

by

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## CHAPTER I

### INTRODUCTION

Social and school activities for children of the middle childhood years are often planned on the basis of traditional friendship norms established by studies conducted earlier in this century. Furfey (1930), Jenkins (1931), Seagoe (1933) and Moreno (1934) found that a very small percentage of elementary and preadolescent children chose members of the opposite sex for friends. Generally friends were chosen on the basis of similarity or propinquity. Similarities included a variety of considerations such as mental age, courtesy and cleanliness, physical maturity, athletic ability, homes and status of families. Antagonism between boys and girls was reported to have existed to the extent that they excluded each other from activities (Furfey, 1930). This study was the first known to have considered heterosexual friendships among elementary school age children.

Research reported during the past two decades has indicated a shift in the pattern of heterosexual social development of children from these norms (Lewis, 1958; Broderick and Fowler, 1961; Broderick and Rowe, 1968; and Broderick and Weaver, 1968). The more recent studies have



centered on children from nine to seventeen years of age. Since changes have been noted in heterosexual social development of children in pubescent and teen years, questions regarding interpersonal relations of younger individuals have begun to emerge. Young preschool age children play with opposite sex siblings and associates, but have parental and societal influences affected choice of sex of playmate by the middle childhood years? Is childhood cut short by the arrival of preadolescence? What are some of the contributing factors for sex-role behavior? Few workers have reported information regarding boy-girl relationships below the fifth grade level (ten years of age) except for observations of preschoolers.

Communication is often recognized as a major force in the shaping of one's life. Many facets comprise this complex executor of positive adjustment. One such facet is the social relationship of boys and girls as they are progressing through the maturation process. Despite the fact that considerable research has been done, typical patterns of communication between boys and girls during the formative years have not been identified.

Broderick and Weaver (1968) attempted to contribute to the understanding of heterosexual (boy-girl) communication through analysis of the way young people interpreted situations which provided an opportunity to communicate. The

study involved boys and girls ages ten to seventeen who responded to four cartoons depicting various boy-girl situations. They found that the responses could be coded into four categories. They were (1) romantic, (2) social, (3) circumstance and (4) hostile. In general the romantic interpretations increased with age. One systematic difference noted by Broderick and Weaver was that boys and girls perceive the heterosexual world in a similar way.

In general, the present study was designed to replicate the work of Broderick and Weaver and has explored patterns of heterosexual social communication of younger children seven to ten years of age, considering age, sex, and presence or absence of opposite siblings in the family. Data have also been compared to the findings reported by Broderick and Weaver.

## CHAPTER II

### REVIEW OF LITERATURE

Freud's analysis of psychosexual development set forth in his theory of infantile sexuality over sixty-five years ago established a foundation upon which present-day exploration and explanation are still laid. One major postulation of the theory was that normal heterosexual development was determined by a child's familial relationships and social experiences rather than by simple biological factors. Freud (1906) further theorized that the development progressed through a series of more or less uniform stages.

The ages of seven through ten years have been identified with a variety of boundaries and definitions. It has been important to scrutinize the discrepancies in classification and characteristics so that generalizations would not be hastily formulated. Though common factors have been found to exist within specific age groups, exceptions and differences continue to be present and demand attention and consideration.

It was found that the two major areas of concern most relevant to this study were description of the age group and exploration of heterosexual socializing agents for the group. The literature has been reviewed accordingly.

Age Group: Definition

There may be danger in explicit definitions and extensive lists of characteristics of children of middle childhood age and their heterosexual patterns in that they may be too rigidly applied; therefore, no attempt has been made, nor is it, in fact, possible to give precise descriptions for the age group.

The considerable ambiguity surrounding terms such as middle years, late childhood and preadolescence has been recognized. Kohen-Raz (1971) documented definitions to provide evidence that there has been and continues to be considerable disagreement over terms and boundaries in the description of stages within the elementary school years. He suggested that the transition from one stage to another must be detectable within the frame of reference of an individual's development and not in reference to a specific developmental scale.

One consideration of the differences may be related to the onset of puberty which in western societies has been found to be two years earlier today than it was at the beginning of this century. It remains unclear as to whether the earlier incidence of puberty has implied that preadolescence begins at an earlier age or whether the period of preadolescence has been shortened (Kohen-Raz, 1971; Eichhorn, 1963). Eichhorn (1963) has commented that the duration of childhood or latency has not been less, necessarily, but that

the physical growth data have suggested that the period of infancy or early childhood has been cut short.

#### Age Group: Social Characteristics

The overlapping and ambiguity which has existed in establishing definitions for the age group have been present also in discussion of the social characteristics of children seven through ten years of age. A major advantage found by researchers in establishing characteristics has been the provision of a common gauge or means of making judgments.

Many studies have contributed to the understanding of those social characteristics which describe school age children. Several researchers have been cited as representative of the numerous workers who have made contributions to the literature. For the sake of clarity in the present study, school age children have been described in two groups--those seven and eight years of age and those nine and ten years of age.

Gesell (1956), Loomis (1959), and Elkind (1971) appear to have agreed in their theoretical and empirical documents that younger elementary school children may be relatively quiet, reflective, and serious. The children are reported to have started to assimilate information acquired earlier and have begun to make judgments. Their world has become more "mental." These children have been characterized as being critical of themselves and others, but have also been

described as being quite social. They are reported to be attracted to the opposite sex at age seven or eight, but they may also display feelings of hostility, a pattern not dissimilar to that of early adolescence. Relationships with siblings have been thought to be better than when the child was younger, but this has been speculated as dependent upon how many siblings were in the family and the age separation between them. Generally, it has been postulated that siblings closer together chronologically have more positive interpersonal relationships.

A somewhat different group of social characteristics have been arranged as a result of studies among preadolescent children, those nine and ten years old. An optimal level of physical health has been reasoned as a contributing factor for less extensive studies of children in the middle childhood years. However, other frustrations related to social, intellectual, and emotional changes, and perhaps to the characteristic increase in activity and energy related to the biophysical basis of changes in endocrine balance, have prompted others to label children of this age group "know-it-all," "rude" or "smarty" (Group for Adv. of Psych., 1966; Piers, 1966; and Redl, 1968).

Many characteristics have been considered attributes, however, as it has been reported that nine- and ten-year-olds have been found to be optimistic, practical and curious

(Elkind, 1971). Gesell (1956) further stated that preadolescents were often contented and amiable.

Nine- and ten-year-old children have been reported to differ from the younger group in sex-role behavior. Girls have been found to be more aware of sex than boys since physiological signs of approaching adolescence may have become evident for them by this time. Very few boys in this age grouping have shown evidence of physical sexual maturity, but they have been found to be interested in acquiring information about sex. Occasionally a boy has been observed showing a strong attachment to one girl with whom he wants to hold hands or display other signs of affection (Redl, 1968).

Many activities have been reported to be enjoyed by both boys and girls together. However, teasing and verbal hostility may be present between the sexes. Discrepancies between interest and values have reportedly narrowed as girls have become more masculine-oriented. They may appear less menacing to the preadolescent boy (Lewis, 1958). Another explanation to be considered has been that boys may have become more effeminate as a result of so-called feminization related to modern education (Kohen-Raz, 1971).

#### Acquisition of Sex-Role Identity

In order for boys and girls to function as heterosexual human beings, it has been considered necessary for

each individual to acquire an appropriate sex-role identity. The process has been described as beginning at birth and progressing gradually through the formative years (Lewis, 1972). Varied and numerous factors have been reported as facilitators or inhibitors of the acquisition of sex-role identity.

Lynn (1962), who has been extensively involved in sex-role research, gave this definition:

Sex-role identification refers to the internalization of the role considered appropriate to a given sex and to the unconscious reactions characteristic of that role (p. 556).

A lack of documented studies concerning the mode of establishment of a child's sex-role identity has made it necessary to be speculative. Kagan (1964), Broderick (1966), and Lewis (1972) have agreed, however, that the foundations for later heterosexual attachments have been laid in early childhood in interactions between parents or parent surrogates and child. Major determinants of sex-role identity advanced by these same researchers include the child's perception of self in relation to the parents of the same and opposite sex, the degree of adoption of games and skills encouraged for a particular sex, and the child's concept of marriage.

Broderick (1966) has reported that the child's perception of himself, in relation to the parent of the same sex, has been thought to be of major importance in the



establishment of sex-role identity. The parent must be neither too weak nor too harsh for the child to identify with him/her. Furthermore, the parent of the opposite sex should provide conditions of fairness and emotional stability in order for the child to develop trust in members of the opposite sex. Kagan (1964) has proposed that the degree to which a child adopts the games and masters the skills that are encouraged for his sex is a measure of the establishment of sex-role identity. These adaptations have been thought to be facilitated by parents who have accepted the child's biological sex and have not attempted to teach cross sex-role behavior. A study by Broderick and Rowe (1968) advanced a positive conception of marriage as a further condition for normal heterosexual development. Their study suggested that recognition of the heterosexual nature of marriage and acceptance of marriage as an attractive element in one's future were important developmental stages in sex-role identity establishment. Failure to achieve this fundamental step was suggested to be detrimental to further progress in relating socially to members of the opposite sex during preadolescence.

Some researchers have thought that socialization toward the acquisition of sex-role identification has its beginning at the time of birth. Lewis (1972) has documented evidence that from the very beginning boys and girls are treated differently by mothers and fathers, and by three months of

age infants have exhibited measurably different behavior. By the age of thirteen months, male children were reported to have shown significantly more autonomous behavior than girls.

Several reasons have been provided by research and theory as to how sex-role identity may be acquired. The process has been thought to differ for boys and girls. Girls, by spending more time with the same sex parent, may learn sex-role behavior by modeling, whereas boys have been required to shift from the initial identification with the mother. Lynn (1959) stated that a stereotyped and conventional masculine role has been outlined for boys through the culture's highly developed system of rewards and punishments. Lynn also reported that in instances where the father has been absent from the developmental situation of the child, identification for boys was found to be more difficult.

It has been reported that our culture has assigned greater freedom value and power to the male role which has as its primary covert attributes a pragmatic attitude, ability to gratify a love object, suppression of fear and a capacity to control expression of strong emotion in time of stress (Parsons, 1955; Jenkins and Russell, 1958; and Bennett and Cohen, 1959).

Hartley (1959) has found that desired sex-role behavior has rarely been positively stated. She reported that sex-role

behavior has been defined as something the boys should not do or be and has often been reinforced harshly. Hartley proposed that this treatment has often led to dislike of the punishing person, usually the mother or mother surrogate, and also dislike of the activity causing the consequence. The implication provided by Hartley has been that boys will be expected to develop hostile feelings toward the incident or the "girl-like" activity causing the consequence, and to thus generalize by developing hostile feelings toward females.

Goodenough (1957) has concluded that parental expectations of sex-typed differences have promoted the more objective, less personal orientation of the male, while females have been guided to be more personally oriented. She found that girls at the age of two to four years had already begun to have greater interest in persons than boys. Goodenough thought that girls learned the expected behavior for their sex-role primarily from the mother or mother surrogate as she had provided a model by talking to the girl child, encouraging close proximity in play, and by expressing affection. Kagan (1964) summarized the characteristics for the female role as being nurturant to others, cultivating attractiveness, and maintaining friendly posture with others.

### Interpersonal Relationships

The ease or difficulty with which a child has developed sex-role identity and his evaluation of that development

appear to be directly related to his social relationships with other children.

During the 1930s, studies were conducted which established norms for friendship patterns among elementary school age children. Until recently the norms were not questioned. A chronological résumé of the findings has been given.

Furfey's early work in 1930 stated that,

. . . girls are rigorously excluded from participation in masculine activities. The girl, however, does not feel the affront keenly since she . . . has the same negative attitude toward boys that they have toward her (p. 101).

Jenkins (1931) reported that various factors were involved in children's friendships. The tendency for children to choose friends of their own age existed independently of school grouping. He found a high correlation between social-economic position of the parent of the child and the parent of the chosen friend. Selection of friends was not significantly influenced by the proximity of the homes according to Jenkins' findings, but tended to be related to similarity in intelligence and interests. Jenkins did not include information related to the sex of the child studied and that relationship to choice of friends. Seago (1933) also found similarity to be of major importance in friendship choices. She found high correlations in friendship patterns of children who had comparable mental age, physical maturity, courtesy and cleanliness, and athletic ability.

Seagoe (1933) and Moreno (1934) agreed that the percentage of friendship choices which extended across sex barriers dropped to near zero in the third and fourth grades, and concluded that children of this age selected same sex friends. In Seagoe's study involving 115 pairs of elementary school children, grades three through eight, it was significant that no choices between sexes in choosing best friends were found. Moreno reported a very small percentage of fourth grade boys chose girls as friends while an even smaller percentage of girls chose boys. Both authors found a tendency at the eighth grade level to choose more opposite sex friends.

In 1939 Campbell supported Furfey's earlier conclusions that children excluded each other from their activities, and also reported that boys and girls of elementary school age touched each other only under socially accepted conditions such as dancing and games.

Bonney (1942) studied choice of friends made by second and third grade boys and girls. When children were given the opportunity to choose friends for various activities, he found only a small percentage of boy-girl mutual friendships existed. Girls chose boys only 15 percent of the time and boys chose girls 11 percent of the time.

It was not until 1955 that researchers began to investigate responses of school counselors and teachers and their views concerning the social development of children in

grades four, five and six (Lewis, 1958). Information gathered from the teachers and counselors through use of surveys, conferences, observations and interviews provided data. Results from Lewis' work were the first to give significant evidence that a shift was occurring in boy-girl relationships within the elementary school years. Responses from counselors and teachers, reported by Lewis, indicated that boys and girls did not wish to be separated socially. Children in all grades, reported the teachers and counselors, enjoyed dancing and games together. Some dating was reported in the fourth grade, and a few children wore tokens of affection in the fifth grade. By the sixth grade, social relations were reported to be relatively mature in that children were friendly with each other and there was little evidence of the antagonism that had existed formerly.

New patterns of heterosexual development showing changes from the 1930s were also reported by Broderick and Fowler (1961). When asked to choose four best friends, the children in Broderick and Fowler's project expressed choices that crossed sex lines in at least one case out of four. At the fifth grade level, more than one-half of the children chose one or more friends of the opposite sex. Data from the study supported the trend for early dating cited in Lewis' study (1958) in that nearly one-half of the boys and slightly more than one-third of the girls at the fifth grade level claim to have had dating experience.

Reese (1962) in studying fifth, sixth, seventh and eighth grade students found that acceptance by opposite sex was positively related to acceptance by same sex when students were asked to rate classmates on a five-point scale, e.g., "1" was equal to S's best friend, and "5" was dislike. He had hypothesized that hostility feelings would have a direct relationship on the sociometric ratings, but concluded from the results that other factors not studied or controlled for specifically were responsible.

Broderick and Rowe (1968) reported that a five-item Guttman scale of social heterosexuality was developed in a study of ten, eleven and twelve year olds in Pennsylvania. Since the theory of developmental stages and items of a Guttman scale make the same requirements, Broderick and Rowe hypothesized that these items represented a series of steps in the development of normal heterosexuality at ages ten, eleven and twelve. The Eastern study was replicated in the Midwest where the reported results supported the same conclusion.

Broderick and Rowe reported that,

The five items which emerged as being most promising on empirical and logical grounds were the following, listed here in the same order in which they might hypothetically occur in the life span of an individual: (1) desiring to marry someday, (2) having a current girlfriend or boyfriend, (3) having been in love, (4) preferring a companion of the opposite sex over a member of the same sex or no companion at all when going to a movie, and (5) having begun to date (p. 98).

From this work they concluded that a heterosexual developmental continuum did exist among ten, eleven and twelve year olds.

In a further study, Broderick and Weaver (1968) investigated the perceptual context of boy-girl communication among youth ten to seventeen years of age. Two cartoons depicting conversational-type situations were shown as were two cartoons showing action situations. Responses to cartoons were recorded and coded as to romantic potential situation, merely social situations, circumstance situations or socially negative situations. They found a clear move toward boy-girl relationship itself as the focus of heterosexual social situations between the fifth and twelfth grades. Systematic differences in the perception of the sexes were such that boys and girls perceived the heterosexual world in a similar way at each of the ages studied.

In summary, it has been recognized that far from being a sexually stagnant period, middle childhood may more realistically be described as a period of great importance in the process of becoming a heterosexual adult. The elementary years may provide a period for the gradual learning of sex appropriate behavior, attitudes, and manners (Broderick, 1966; Elkind, 1971). Kohen-Raz (1971) interpreted the antagonism present between preadolescent boys and girls as the expression of a mutual striving to strengthen their sex-role identity. Further studies of middle childhood are needed to



aid in the establishment of current social norms for elementary school age children, and to provide better focus as to implications and interpretations.

#### Statement of the Problem

Teachers, parents and others responsible for the rearing and socialization of children have traditionally planned activities on the premise that social norms for elementary school age and preadolescent children established in the 1930s are still relevant.

Studies within the last two decades have depicted a shifting pattern of social relationships among boys and girls in grades four through twelve. A perusal of the literature revealed limited information regarding communication among elementary school age children. Therefore, the present research was concerned with investigating a particular facet of social relationships among children seven through ten years of age. Perceptual communication was studied by use of heterosexual situational cartoons to elicit responses in verbal interviews.

First, it was expected that the patterns of heterosexual social responses of seven through ten year old children would not differ significantly from the heterosexual social responses of ten to seventeen year old youth obtained by Broderick and Weaver (1968) in a study of that age group.

Furthermore, it was hypothesized that the sexes at ages seven to ten would not differ significantly in

interpretation of either conversational situation cartoons or action situation cartoons.

Thirdly, interpretation of conversational and action cartoons was not expected to differ between age groups, seven and eight and nine and ten.

Finally, it was expected that no significant differences would be detected in the interpretation of either the conversational or the action cartoons between subjects having siblings of the opposite sex and those who did not.

## CHAPTER III

### METHOD

#### Experimental Design

The experimental design was a 2 x 2 x 2 factorial. Independent variables studied included sex (male vs. female), age (seven- and eight-year-olds vs. nine- and ten-year-olds), and sibling (presence or absence of sibling). The four dependent variables studied consisted of responses to cartoon type pictures which were coded as (1) romantic, (2) social, (3) circumstance, or (4) hostile.

#### Subjects

The sample consisted of 160 white public school students in the Margaret Beeks Elementary School in Blacksburg, Virginia. After being screened for the basic criteria of age (seven through ten years), sex, and presence or absence of opposite siblings, the Ss were randomly selected to establish specific groups.

From a total population of 507 students who were enrolled in grades one through five, it was determined that 379 were eligible for selection on the basis of age. Eligibility was further determined by ability of students to answer questions, and whether or not the student was a

member of an intact family. It was thought that sex-role identity as acquired by the child may have been facilitated by the presence of both parents. Races of children other than Caucasian enrolled at Margaret Beeks School comprised only a very small percentage of the population; therefore, it was decided to include only Caucasian children in the sample. Finally, students were eligible because of presence or absence of opposite siblings in the family. Sibling association may be related to differential identification of sex-role and to interpretative communication. A random selection from the remaining group yielded 160 Ss assigned to eight groups as shown in Table 1.

Student record information was used to establish the groups from which assignments were made. The writer talked to Ss informally at the beginning of the interviews in a get-acquainted period to verify record accuracy as to age of Ss and presence or absence of certain family members. Alternative group members were assigned in case of incorrect information. Use of alternate group Ss was necessary in only three cases: in one case there was an inaccurate record of age; in one case the father was reported to have been in the family when, in fact, he was not; and in the third case a mother declined the option for her child to be included in the study.

TABLE 1  
Subject Classifications

Group	Sex	Ages	Opposite Siblings	Number
1	Female	7-8	With	20
2	Female	7-8	Without	20
3	Male	7-8	With	20
4	Male	7-8	Without	20
5	Female	9-10	With	20
6	Female	9-10	Without	20
7	Male	9-10	With	20
8	Male	9-10	Without	20

### Instrument

Broderick and Weaver (1968) used cartoon-type pictures depicting boy-girl situations to elicit responses from a sample of ten to seventeen year old Ss for the purpose of determining types of heterosexual communication within that age group. After contact by a V.P.I. & S.U. faculty member in behalf of the writer, permission was secured to use the instrument and to replicate, in general, the study of Broderick and Weaver using younger Ss.

Since Broderick and Weaver had dealt with two general age groups, two different sets of pictures had been developed for use in their study. With the older group of students in grades nine through twelve, pictures of the situations used adolescent forms. For the younger group of children in the fifth through the eighth grades, pictures depicted pre-adolescent forms.

The four cartoon pictures with body proportions basically prepubescent were selected for use in the present study. The first two cartoons were designed to emulate conversational situations. Picture one showed a boy and a girl sitting side by side on a bench. The second picture showed a front view of a boy and girl standing side by side staring out of the picture. In the first two pictures, Ss were instructed to tell: What is happening in the picture? Why? What is the boy thinking? What is the girl thinking? The third and fourth pictures represented action situations.

In the third cartoon a boy running after a girl was depicted. In picture four a girl running after a boy was presented. For those pictures the instructions were to tell: What is happening now? What will happen next? How will the girl feel then? How will the boy feel then? (See Figures 1, 2, 3, and 4 on the following pages.)

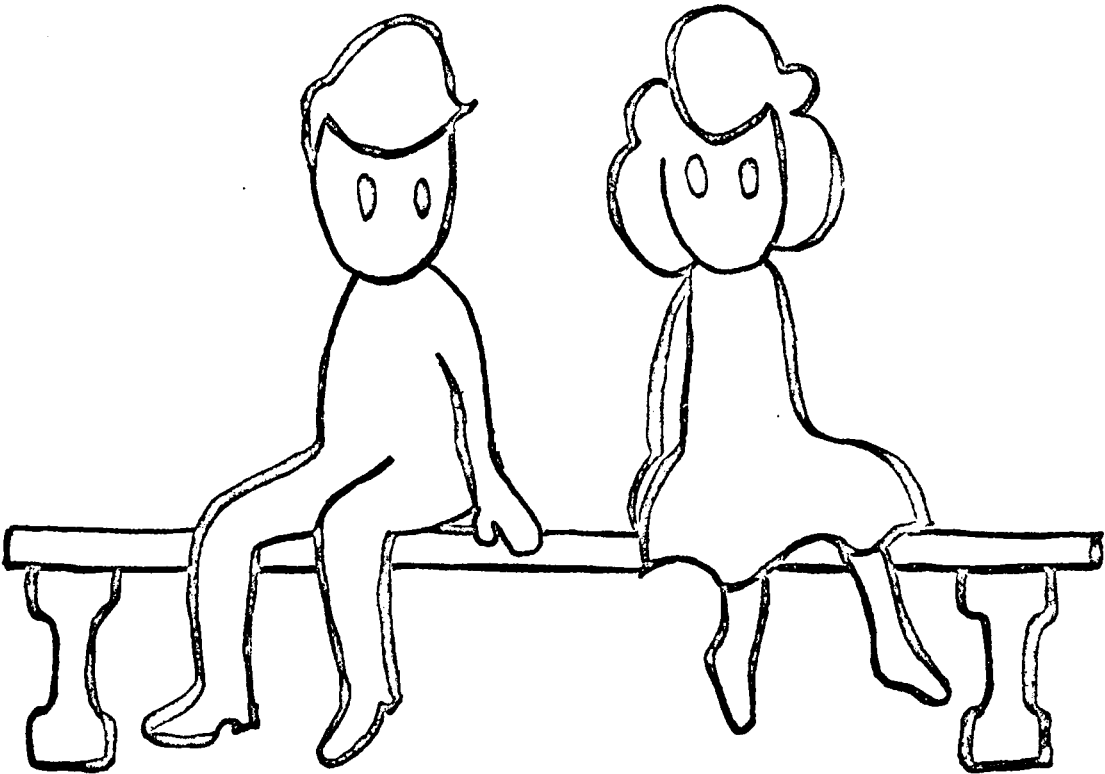
It was believed that perception of what was happening in the pictures would cause Ss to respond accordingly. Perception would be related to the interpretation that Ss had of their own sex role and to their stages of social development.

### Procedure

In general, the present study was designed to replicate the work of Broderick and Weaver (1968). However, certain changes in administration of the instrument and establishment of criteria for selection of Ss were implemented.

In the 1968 study the instrument was presented to groups of Ss who wrote their responses. In the present study, each of the Ss was interviewed individually and their responses recorded on tape. The change was necessary because of the young age of the Ss, and their inability to write responses without some difficulty.

In the work of Broderick and Weaver, groups controlled for specific criteria were not established prior

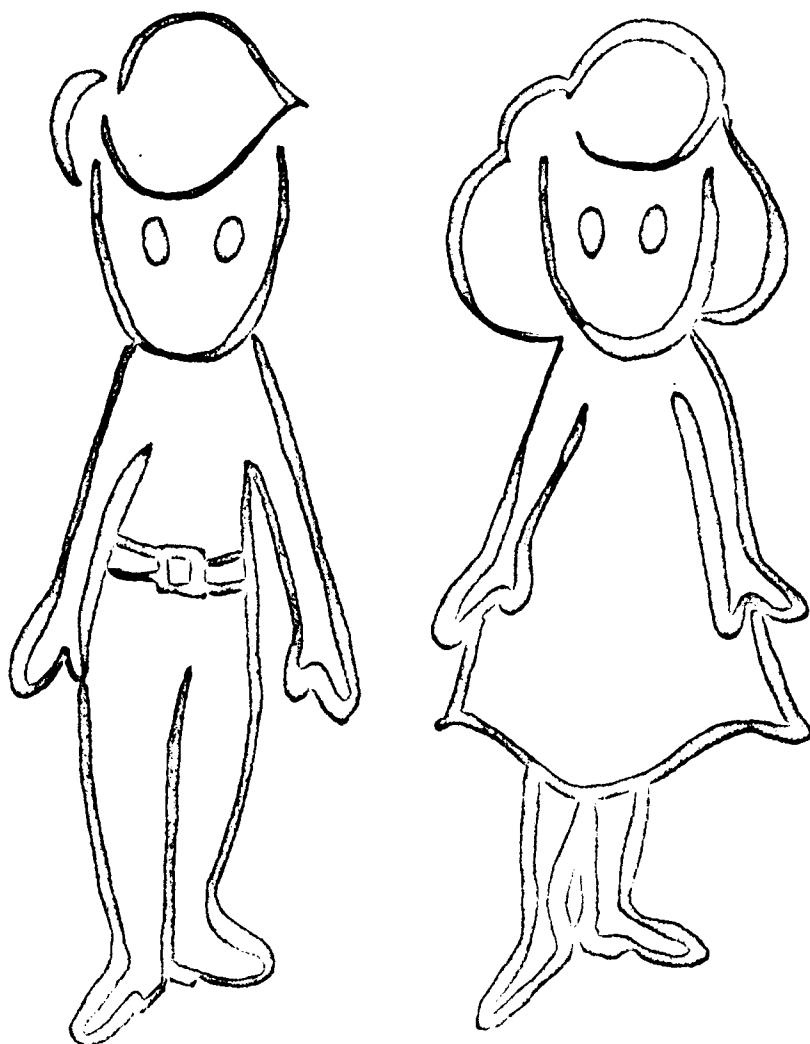


What is happening? Why?  
What is the girl thinking about?  
What is the boy thinking about?

FIGURE 1

Conversational Situation





What is happening? Why?  
What is the girl thinking about?  
What is the boy thinking about?

FIGURE 2

Conversational Situation



What is happening now? Why?  
What will happen next?  
How will the girl feel then?  
How will the boy feel then?

FIGURE 3

Action Situation



What is happening now? Why?  
What will happen next?  
How will the girl feel then?  
How will the boy feel then?

FIGURE 4

Action Situation

to the administration of the instrument, whereas definite group assignments were made to control for age, sex, and the presence or absence of opposite siblings in the current study.

Prior to the beginning of the study, the writer met with the school principal and teachers, in whose classes the Ss were present, to provide a full explanation of the study. Guidelines concerning ethical considerations in research as published by the Society for Research in Child Development (1973) were reviewed and satisfied; printed copies of the study proposal, statements to parents, statements to students and lists of Ss who had been determined to be eligible for the study were given to teachers. Each of the involved teachers was asked to sign a statement that they had heard the explanation of the study and had agreed to cooperate by allowing students to leave the classroom for short individual interviews. Teachers provided the writer with appropriate times for scheduling interviews with the Ss. At times convenient to both teacher and writer, individual interviews were arranged with Ss. The interviews were conducted in the school library office, the book room, and a specified area behind the stage. The busy schedule of resource people working with individuals or small groups of students, and the lack of unscheduled space in the building were some of the difficulties encountered in arranging appropriate time and facilities for conducting the interviews. However, all

the locations used were suitable as they offered relatively quiet, uninterrupted situations.

Prior to the administration of the instrument, students were given a standard verbal or written explanation of the study according to their ability to read (see Appendix A). An explanatory statement was prepared for parents giving the option of participation by their child (see Appendix A).

Eight children were interviewed as pilot subjects. During this time the interviewer became familiar with the pictures and established a routine for the interview. Another change in procedure from the Broderick and Weaver study was established after it became apparent that Ss responses were more coordinated when the two pictures where the children were seated and standing were reversed. It was therefore established as standard procedure for this study that the conversational pictures would be shown with the sitting picture first, a reverse order from that used by Broderick and Weaver. They had found no significant difference in the type of responses to pictures one and two in the study of older youth, and it was therefore apparent that the order of pictures was not crucial to the type of responses received, but merely a matter of choice on the part of the writer, based on insight gained during pilot interviews.

An interview routine was established for the purpose of making the study as uniform as possible. The writer went

to the Ss classroom to accompany the child to the interview area. The writer talked informally with the S in order to get acquainted, to establish rapport with the particular child, and to verify student record accuracy. When the writer thought the S understood the nature of the study, the pictures were shown one by one in the following order: Conservational situations--sitting, standing; Action situations--boy running after girl, girl running after boy. Responses made by the Ss to the pictures were recorded on tape. After the S had responded to each of the four pictures, further discussion between the E and the S centered around the study or the individual and was encouraged simply to build positive child-adult relations. The E thanked the S for his participation in the study and the child returned to his classroom.

#### Coding of Responses

Four categories of possible responses were established for each picture. Categories established by Broderick and Weaver (1968, pp. 620-1) were used as a model for coding responses. The children in the present study gave no responses at this younger age which were not appropriate for coding according to the system devised by Broderick and Weaver in their study of ten to seventeen year old youth. The responses of the subjects were coded into the following categories.

Category 1 gave clear evidence of positive heterosexual (as opposed to merely social) interest on the part of the boy or the girl in the picture or on the part of both. The second category focused on interpersonal aspects of the situation, but gave no clear romantic implications. Some circumstances such as a game or waiting for the bus defined the situation in category 3. Finally, in the fourth category responses viewing the situation as socially negative or hostile were coded. Typical responses for each category are given.

Category 1: "They are getting married because they love each other. She is thinking about the fun times they will have. He is thinking about the places he can take her." (Girl, age 8, Figure 2.)

Category 2: "They're sitting there feeling lonely. She wants to be his friend. He wants to be her friend." (Girl, age 10, Figure 1.)

Category 3: "They are playing tag. The girl won. She felt happy. He felt sad." (Boy, age 7, Figure 3.)

Category 4: "They don't like each other. She is thinking how mean that boy is. He is thinking how mean that girl is." (Girl, age 9, Figure 1.)

## CHAPTER IV

### RESULTS AND DISCUSSION

#### Results

Overall Analysis: Responses.--Responses obtained during individual interviews were coded into four response categories and arranged in tabular form for each figure. The data were arranged in contingency tables in accord with Sutcliffe's method (1957), and subjected to a Chi Square test of independence. Procedures for analysis outlined by Sutcliffe were used to determine relationships existing between either level of the three independent variables: age, sex, and sibling condition and the effects of these relationships on the dependent variables or responses. Further Chi Square analyses were performed where significant interaction effects occurred to determine sources of significance. Statistically significant relationships among responses and between factors have been noted in the tables which follow. The degrees of freedom (df) for each contingency table were 3, thereby establishing a rejection point of 7.815 at the  $p < .05$  level of significance, and a rejection point of 11.345 at the  $p < .01$  level of significance.



A combined summary of the response frequencies observed for each of the four figures has been presented in Table 2. Statistical analyses of the data indicated that: (a) there was a significant difference in the overall response patterns of children for each of the four figures ( $p < .01$ ); (b) a significant interaction effect of Response x Sex x Age was observed for Figure 1 ( $p < .01$ ); (c) a significant interaction effect of Response x Sex was observed for Figure 3 ( $p < .01$ ); and (d) no other factors or interactions were significant at the selected lower level of probability ( $p < .05$ ). In the summary of total frequencies, only 55 of the possible 640 responses were coded as hostile or socially negative. Romantic responses totaled 154, social responses were given 149 times and circumstance situation responses were obtained 282 times.

Analysis: Figure 1--conversational, boy and girl sitting.--In Table 3, response frequencies for all combinations of variables are presented. Results of statistical analyses are shown in Table 4. There was a significant Chi Square effect ( $p < .01$ ) on responses and also a significant interaction effect due to Response x Sex x Age. The distribution of responses has been graphically presented in Table 5, which also contains statistical inferences regarding specific interaction effects. Boys and girls responded differently in both age levels in terms of romantic

TABLE 2  
 Summary of Response Frequencies  
 for All Figures

Categories	Responses <sup>a</sup>				Totals
	1	2	3	4	
Figure 1: Boy and Girl Sitting	52	34	57	17	160
Figure 2: Boy and Girl Standing	52	34	71	3	160
Figure 3: Boy Running After Girl	26	48	75	11	160
Figure 4: Girl Running After Boy	<u>24</u>	<u>33</u>	<u>79</u>	<u>24</u>	<u>160</u>
TOTALS	154	149	282	55	640

<sup>a</sup>Definition of Responses: 1 = romantic; 2 = social;  
 3 = circumstance; 4 = hostile.

TABLE 3

Response Frequencies for Figure 1,  
Boy and Girl Sitting

Factors	Responses				Totals
	1	2	3	4	
Responses	52	34	57	17	160
Response x Sex					
Males	28	14	31	7	80
Females	24	20	26	10	80
Totals	52	34	57	17	160
Response x Age					
7 - 8	31	15	28	6	80
9 - 10	21	19	29	11	80
Totals	52	34	57	17	160
Response x Sex x Age					
M 7 - 8	13	10	14	3	40
F 7 - 8	18	5	14	3	40
M 9 - 10	15	4	17	4	40
F 9 - 10	6	15	12	7	40
Totals	52	34	57	17	160
Response x Sibling					
With	24	18	30	8	80
Without	28	16	27	9	80
Totals	52	34	57	17	160
Response x Sibling x Sex					
M - W	12	7	15	6	40
F - W	12	11	15	2	40
M - Wo	16	7	16	1	40
F - Wo	12	9	11	8	40
Totals	52	34	57	17	160
Response x Sibling x Age					
W 7 - 8	15	8	14	3	40
W 9 - 10	9	10	16	5	40
Wo 7 - 8	16	7	14	3	40
Wo 9 - 10	12	9	13	6	40
Totals	52	34	57	17	160

Note: Definitions are: W = with opposite sibling; Wo = without opposite sibling. Definitions of responses were given in Table 2.

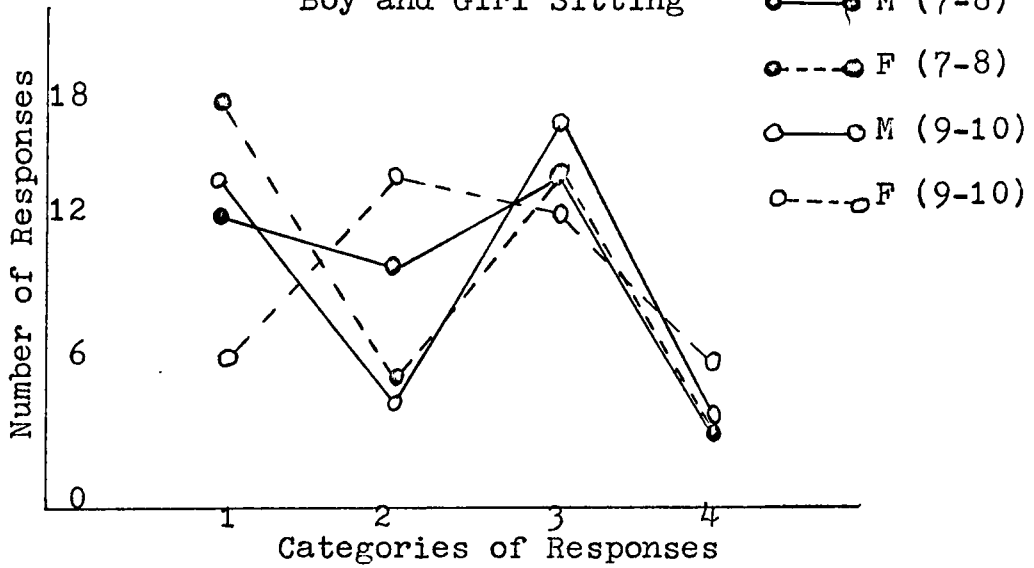
TABLE 4  
 $\chi^2$  Source Table for Figure 1,  
 Boy and Girl Sitting

Source	df	$\chi^2$
Response	3	24.95**
Response x Sex	3	2.15
Response x Age	3	3.55
Response x Sex x Age	3	12.15**
Response x Sibling	3	0.75
Response x Sibling x Sex	3	1.35
Response x Sibling x Age	3	0.35

\*\*p < .01.

TABLE 5

Figure 1: Response x Sex x Age  
Boy and Girl Sitting



	1	2	3	4
M vs. F (7-8)	*	*	n.s.	n.s.
M vs. F (9-10)	*	*	n.s.	n.s.
	M(7-8)	F(7-8)	M(9-10)	F(9-10)
1 vs. 2	n.s.	**	**	*
1 vs. 3	n.s.	n.s.	n.s.	n.s.
1 vs. 4	*	**	**	n.s.
2 vs. 3	n.s.	*	**	n.s.
2 vs. 4	n.s.	n.s.	n.s.	n.s.
3 vs. 4	**	**	**	n.s.

\*p < .05.

\*\*p < .01.

Note: Responses are as previously defined in Table 2.

and social responses, but there was no significant difference in responses of a circumstantial or hostile nature. With increasing age, boys gave more responses of a romantic nature, while girls in the older group gave markedly fewer romantic responses. In contrast, social responses were less frequently given by older boys, but were more frequently chosen by girls. Further examination of responses by Chi Square analyses (Table 5) revealed that younger females, ages seven and eight, and older males, ages nine and ten, differed significantly from younger males, ages seven and eight ( $p < .01$ ). Females nine and ten exhibited differences in responses from the response patterns of the other groups ( $p < .05$ ). Younger females and older males gave more romantic than social responses, whereas girls nine and ten years of age gave significantly more social than romantic responses.

All groups except females nine and ten years of age gave significantly more responses that were coded as romantic or circumstance rather than hostile. Analysis of romantic vs. circumstance responses and social vs. hostile responses produced no significant differences for any group.

Analysis: Figure 2--conversational, boy and girl standing.--Tables 6 and 7, respectively, display response frequencies for all variables and Chi Square analyses for these frequencies for Figure 2. There was a significant

TABLE 6

Response Frequencies for Figure 2,  
Boy and Girl Standing

Factors	Responses				Totals
	1	2	3	4	
Responses	52	34	71	3	160
Response x Sex					
Males	26	17	36	1	80
Females	26	17	35	2	80
Totals	52	34	71	3	160
Response x Age					
7 - 8	28	19	32	1	80
9 - 10	24	15	39	2	80
Totals	52	34	71	3	160
Response x Sex x Age					
M 7 - 8	14	12	14	0	40
F 7 - 8	14	7	18	1	40
M 9 - 10	12	5	22	1	40
F 9 - 10	12	10	17	1	40
Totals	52	34	71	3	160
Response x Sibling					
With	24	19	36	1	80
Without	28	15	35	2	80
Totals	52	34	71	3	160
Response x Sibling x Sex					
M - W	14	8	17	1	40
F - W	10	11	19	0	40
M - Wo	12	9	19	0	40
F - Wo	16	6	16	2	40
Totals	52	34	71	3	160
Response x Sibling x Age					
W 7 - 8	12	10	18	0	40
W 9 - 10	12	9	18	1	40
Wo 7 - 8	16	9	14	1	40
Wo 9 - 10	12	6	21	1	40
Totals	52	34	71	3	160

Note: Definitions are: W = with opposite sibling; Wo = without opposite sibling. Definitions of responses were given in Table 2.

TABLE 7  
 $\chi^2$  Source Table for Figure 2,  
 Boy and Girl Standing

Source	df	$\chi^2$
Response	3	62.75**
Response x Sex	3	0.05
Response x Age	3	3.05
Response x Sex x Age	3	2.65
Response x Sibling	3	0.85
Response x Sibling x Sex	3	3.35
Response x Sibling x Age	3	0.75

\*\*p < .01.



difference in the number of responses given for each category for Figure 2. To assess relationships between responses, a one sample Chi Square analysis of all combinations of response pairs was performed and has been reported in Table 8. The analysis revealed that the number of hostile responses differed significantly from the number of responses in the romantic, social or circumstance categories ( $p < .01$ ). The children gave significantly more responses in each of the three positive categories, i.e., romantic, social and circumstance, than in the category described as negative. For Figure 2, a difference was revealed between response categories two and three in that significantly more responses were given that were coded in the circumstance category than in the social category. The analysis revealed no significant interaction effects between variables for Figure 2.

Analysis: Figure 3--action, boy running after girl.--  
Response frequencies for all combinations of variables for Figure 3 have been presented in Table 9. The statistical analysis of these data has been shown in Table 10. There was a significant Chi Square effect ( $p < .01$ ) for responses and also a significant interaction effect due to Response x Sex. The distribution of the responses, graphically presented, and statistical inferences regarding specific interaction effects have been presented in Table 11. Males and females did not differ significantly from each other in any response

TABLE 8

Analysis of Response Categories for Figure 2,  
Boy and Girl Standing

Categories	Significance
Romantic <u>vs.</u> Social	n.s.
Romantic <u>vs.</u> Circumstance	n.s.
Romantic <u>vs.</u> Hostile	**
Social <u>vs.</u> Circumstance	**
Social <u>vs.</u> Hostile	**
Circumstance <u>vs.</u> Hostile	**

\*\*p < .01.

TABLE 9

Response Frequencies for Figure 3,  
Boy Running After Girl

Factors	Responses				Totals
	1	2	3	4	
Responses	26	48	75	11	160
Response x Sex					
Males	8	23	45	4	80
Females	18	25	30	7	80
Totals	26	48	75	11	160
Response x Age					
7 - 8	15	27	36	2	80
9 - 10	11	21	39	9	80
Totals	26	48	75	11	160
Response x Sex x Age					
M 7 - 8	5	12	23	0	40
F 7 - 8	10	15	13	2	40
M 9 - 10	3	11	22	4	40
F 9 - 10	8	10	17	5	40
Totals	26	48	75	11	160
Response x Sibling					
With	11	30	34	5	80
Without	15	18	41	6	80
Totals	26	48	75	11	160
Response x Sibling x Sex					
M - W	3	15	19	3	40
F - W	8	15	15	2	40
M - Wo	5	8	26	1	40
F - Wo	10	10	15	5	40
Totals	26	48	75	11	160
Response x Sibling x Age					
W 7 - 8	6	17	17	0	40
W 9 - 10	5	13	17	5	40
Wo 7 - 8	9	10	19	2	40
Wo 9 - 10	6	8	22	4	40
Totals	26	48	75	11	160

Note: Definitions are: W = with opposite sibling;  
Wo = without opposite sibling. Definitions of responses  
were given in Table 2.

TABLE 10  
 $\chi^2$  Source Table for Figure 3,  
 Boy Running After Girl

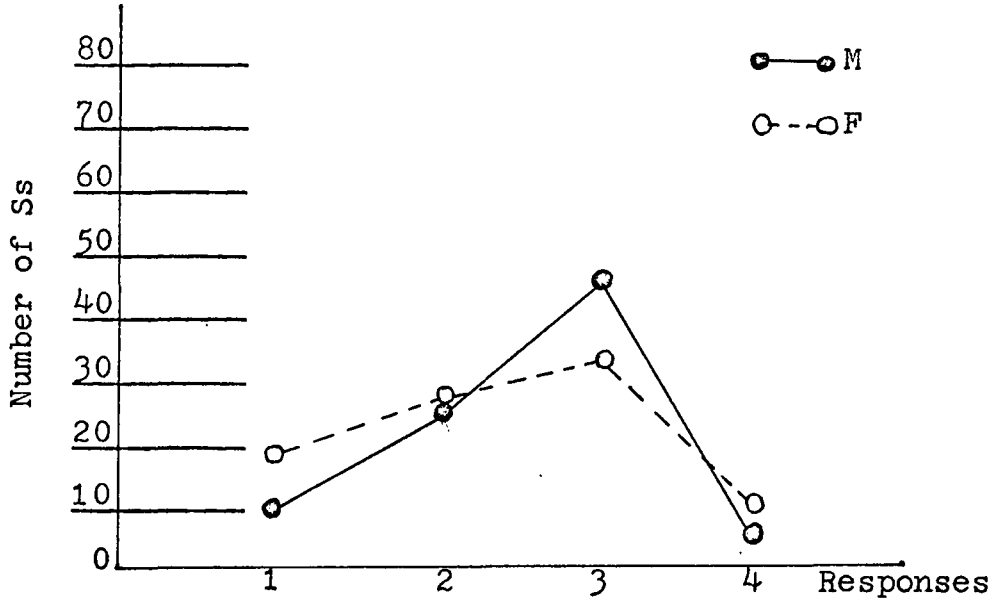
Source	df	$\chi^2$
Response	3	58.16**
Response x Sex	3	8.44*
Response x Age	3	2.74
Response x Sex x Age	3	1.06
Response x Sibling	3	5.24
Response x Sibling x Sex	3	1.96
Response x Sibling x Age	3	0.66

\*p < .05.

\*\*p < .01.

TABLE 11

Figure 3: Response x Sex  
Boy Running After Girl



M vs. F	Category of Response			
	M		F	
Response 1 n.s.	1 vs. 2	**	1 vs. 2	n.s.
Response 2 n.s.	1 vs. 3	**	1 vs. 3	**
Response 3 n.s.	1 vs. 4	n.s.	1 vs. 4	**
Response 4 n.s.	2 vs. 3	**	2 vs. 3	n.s.
	2 vs. 4	**	2 vs. 4	**
	3 vs. 4	**	3 vs. 4	**

\*\*p < .01.

Note: Responses are as previously defined in Table 2.

category. Combinations of factors which were sources of significant interactions were revealed when relationships of responses were analyzed. There were significant differences in the number of responses given in the romantic category when compared with the circumstance category for both boys and girls. The result might indicate that the children interpreted the picture as representing a game or circumstance rather than a social situation. There was a significant difference in responses in the social vs. hostile categories with the lesser number of responses occurring in the hostile category. The Ss did not perceive the existence of a hostile or socially negative situation. A similar relationship was present between categories coded as circumstance and hostile. The picture was not perceived as social or romantic as often as circumstance when that relationship was explored.

Analysis: Figure 4--action, girl running after boy.--

Response frequencies for Figure 4 are presented in Table 12, while Table 13 displays the statistical analysis of Figure 4. When children were asked to respond to questions concerning Figure 4, significant differences among responses were revealed. The relationship of responses was such that romantic responses vs. circumstance responses and social responses vs. circumstance responses differed to a significant degree. Also the responses of the children differed significantly for

TABLE 12

Response Frequencies for Figure 4,  
Girl Running After Boy

Factors	Responses				Totals
	1	2	3	4	
Responses	24	33	79	24	160
Response x Sex					
Males	8	19	45	8	80
Females	16	14	34	16	80
Totals	24	33	79	24	160
Response x Age					
7 - 8	12	17	43	8	80
9 - 10	12	16	36	16	80
Totals	24	33	79	24	160
Response x Sex x Age					
M 7 - 8	5	8	24	3	40
F 7 - 8	7	9	19	5	40
M 9 - 10	3	11	21	5	40
F 9 - 10	9	5	15	11	40
Totals	24	33	79	24	160
Response x Sibling					
With	13	17	39	11	80
Without	11	16	40	13	80
Totals	24	33	79	24	160
Response x Sibling x Sex					
M - W	3	11	20	6	40
F - W	10	6	19	5	40
M - Wo	5	8	25	2	40
F - Wo	6	8	15	11	40
Totals	24	33	79	24	160
Response x Sibling x Age					
W 7 - 8	6	9	22	3	40
W 9 - 10	7	8	17	8	40
Wo 7 - 8	6	8	21	5	40
Wo 9 - 10	5	8	19	8	40
Totals	24	33	79	24	160

Note: Definitions are: W = with opposite sibling;  
Wo = without opposite sibling. Definitions of responses  
were given in Table 2.

TABLE 13  
 $\chi^2$  Source Table for Figure 4,  
 Girl Running After Boy

Source	df	$\chi^2$
Response	3	52.05**
Response x Sex	3	6.85
Response x Age	3	2.85
Response x Sex x Age	3	2.05
Response x Sibling	3	0.25
Response x Sibling x Sex	3	6.05
Response x Sibling x Age	3	0.45

\*\*p < .01.



circumstance vs. hostile responses (Table 14). Significant interaction effects between responses were not observed for this figure.

### Discussion

Results of the present study provide evidence that children seven through ten years of age do not view situations, when pictorially presented, as having antisocial characteristics. When the responses which related to romantic and social categories were totaled, it was found that nearly one-half of the 640 possible responses were of a distinctly social nature. The circumstance category was found to reveal social overtones in that the children often gave responses such as "They're playing a game" or "They're playing tag" for Figures 3 and 4. These were coded as a circumstance rather than a romantic or social relationship as games were a specific example given by Broderick and Weaver (1968) as a circumstance response. However, games were certainly a form of social interaction though differing in nature from romantic relationships or friendships. It might be possible, therefore, to suggest that a positive social bias was attached to category three. The remaining responses coded as hostile made up only 8 percent of the possible responses.

The observation that children seven through ten years of age gave responses of a positive nature has been in general agreement with Broderick and Weaver's study (1968)

TABLE 14

Analysis of Response Categories for Figure 4,  
Girl Running After Boy

Categories	Significance
Romantic <u>vs.</u> Social	n.s.
Romantic <u>vs.</u> Circumstance	**
Romantic <u>vs.</u> Hostile	n.s.
Social <u>vs.</u> Circumstance	**
Social <u>vs.</u> Hostile	n.s.
Circumstance <u>vs.</u> Hostile	**

\*\*p < .01.

of youth ten to seventeen years of age. Their findings suggested that preadolescent children were shifting from antagonistic feelings for the opposite sex to romantic concern. The findings of the present study which has been concerned with children seven to ten years of age suggests that children even younger have positive feelings about the opposite sex. Lack of hostility responses between the sexes was not in agreement with findings of studies done in the 1930s (Furfey, 1930; Seagoe, 1933; and Moreno, 1934). It seems apparent that social norms have changed markedly in the past thirty years and that reexamination of previously accepted ideas regarding relationships between boys and girls of preadolescent age is well justified. The work of Broderick and Weaver (1968) and the present study suggest that further research in the area of heterosexual communication may be needed. Studies similar to this one conducted on a larger scale should reveal valuable insights and understanding of attitudes of boys and girls toward members of the opposite sex.

The similarity of the results of this study with those reported by Broderick and Weaver (1968) warrant the acceptance of the first hypothesis proposed by the writer; namely, that children of the seven through ten age group would respond in a similar manner to those observed for older subjects in the previous study.

The second hypothesis, which stated that males and females in the seven through ten age group would not differ significantly in interpretation of the pictures, was refuted by significantly different responses which were observed in responses to Figures 1 and 3. Males and females differed in the proportion of responses in the romantic and social categories to Figure 1, boy and girl sitting, with the boys giving a higher proportion of romantic responses than girls. In Figure 3, more of the girls viewed the action situation of a boy chasing a girl as having romantic implications than the boys, who tended to view the same situation as a game or circumstance response.

The hypothesis that no significant difference in interpretation of the pictures would occur between age groups was refuted by significantly different responses observed when the children responded to Figure 1. There was only one significant age-related interaction for Figure 1, a boy and girl sitting. Girls seven and eight years of age chose circumstance responses most often, while older girls more frequently selected romantic responses. Males nine and ten years of age responded with a higher proportion of romantic responses than did their younger counterparts. These findings suggest that ages nine and ten years are perhaps the period when attitudes of boys and girls are beginning to shift from social or circumstance interpretations regarding the opposite

sex to greater emphasis on romantic interpretations. Further research is needed to support and expand this conjecture.

The final hypothesis that no significant difference would be detected in interpretation of pictures between Ss having opposite siblings and those who did not was accepted when the data were analyzed. No significant differences in responses were found among children who had or did not have siblings. Additionally, no significant interactions were found which involved this factor.

Discussion: Figure 1--boy and girl sitting.--There was a significant response effect for Figure 1 which showed a boy and girl sitting, in that frequencies of responses for each category were different from those expected (Table 4). Circumstance responses were obtained most frequently for Figure 1. Also, the social and romantic responses totaled more than one-half of the possible responses. The significant interaction of Response x Sex x Age, upon analysis, revealed differences in responses of boys and girls in both age levels in terms of romantic and social responses, but there was no difference in responses of a circumstance or hostile nature. Younger children, ages seven and eight, gave more romantic responses than did the older group, those children who were nine and ten years of age. Additionally, females who were seven and eight years

of age differed from males of the same age by interpreting Figure 1 as romantic more frequently than social or hostile. A greater frequency of responses in category three revealed that females seven and eight years of age often viewed Figure 1 as a circumstance situation and seldom responded to it as being hostile. Males in the seven- and eight-year-old group, in their interpretation of Figure 1, more often gave romantic or circumstance responses than hostile ones. Males nine and ten years of age responded as if they perceived Figure 1 as romantic far more often than as if they perceived it as having hostile implications. The boys in this same age group also gave few hostile answers in relation to the number of circumstance responses. The girls who were nine and ten years of age most often gave responses of a social nature for Figure 1. The second most frequent category of responses for these girls was circumstance. Apparently, at ages nine and ten, the girls simply considered boys to be good friends when viewed in a conversational setting such as shown in Figure 1, whereas boys were more inclined to interpret the picture as romantic in nature.

Discussion: Figure 2--boy and girl standing.--Responses given for Figure 2 which shows a boy and girl standing side by side, most often were found to be related to circumstance. Boys and girls, across age groups and regardless of presence or absence of siblings, responded in a like manner. "They

are walking down the hall to class" or "They are walking to school" were typical responses. However, a greater frequency of romantic responses were given by the younger girls than by the other age groups. Responses such as "They're getting married because they love each other" and "They're holding hands now because he loves her" were often given. Responses such as "He is her friend now. He is showing her where the room is," was a typical response in the frequently coded social category. Very few negative or hostile responses by either group of children, by age, sex, or presence/absence of siblings, were given for Figure 2.

Discussion: Figure 3--boy running after girl.--As in the case of Figures 1 and 2, there was a significant response effect for Figure 3 which suggested, upon closer examination, that boys tended to respond differently from girls to specific response combinations. In this action picture, which displays a boy running after a girl, the emphasis was on the circumstance response indicating broad acceptance of the game-like implication of this picture. Romantic responses were markedly lower for Figure 3 than for Figures 1 and 2 which depicted conversational situations. The girls found a higher level of romantic implications than the boys, while the boys responded more often about the circumstances of the picture than the romantic implications. Both the social

and the hostile responses were similar in frequency with both sexes. The low level of hostile responses observed for this picture, which depicts an action situation in which the boy is running after the girl, is strong evidence in support of the premise that boys and girls of this age group have little hostility toward members of the opposite sex in contrast to what generally accepted norms (Furfey, 1930; Seagoe, 1933; Moreno, 1934) have suggested. The greater availability of nursery school and kindergarten opportunities where games and activities are engaged in jointly by members of both sexes may help to account for the response patterns observed in the present study. Television programming on both educational and commercial channels tends to depict situations in which male and female children play together in social or non-hostile fashion and provides models for the type of behavior evidenced by responses in this category. Less rigidly defined sex-related roles in sports also may have had influence upon the response pattern for Figure 3. Parental encouragement of greater involvement in social activities may have been a contributing influence as well.

Discussion: Figure 4--girl running after boy.--In general, responses to Figure 4 which portrayed a girl running after a boy were quite similar to those observed for Figure 3 where the boy was shown running after the girl.



Children did not respond as if they perceived this picture to have romantic implications as evidenced from the few responses which were romantic in nature when contrasted with other pictures. Many Ss described this picture as depicting a game or sports situation. It is interesting to note that more girls responded in a hostile manner to Figure 4 than to Figure 3, where boys gave more hostile answers. It might be speculated that since the girl was depicted as the pursuant in Figure 4, responses suggesting the idea of "getting even" with the boy because of anti-social behavior on his part were chosen by the girls. No significant differences were observed even though it is interesting to examine why this might be so in a situation where the girl, rather than the boy, appeared to be in command of the situation. There was a trend in the Response x Sex interaction suggesting that perhaps the boys and girls did view this picture differently from Figures 1 and 2. Inspection of the response interactions revealed that a significantly greater number of responses were recorded in the circumstance category than in any of the other three response variables. Responses of a circumstance nature were often given by boys for this picture, whereas girls gave more social responses. This is not in agreement with findings by Broderick and Weaver (1968) who found that the girls in their study gave more circumstance responses for both Figures 3 and 4.

The data in this study indicate that the younger children often may have been viewing the action in the picture as a game situation. The differences in responses observed between this study and that of Broderick and Weaver (1968) could have been due to the difference in age of Ss or to coding variability.

## CHAPTER V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

The purpose of the present study was to investigate heterosexual social communication between boys and girls seven through ten years of age through the use of pictorial settings. Sex, age, and presence or absence of opposite siblings were factors investigated in relation to the responses for each of the four pictures. The sample consisted of 160 children ranging from seven to ten years of age who were enrolled at the Margaret Beeks Elementary School in Blacksburg, Virginia. Data were collected in January and February, 1973 through the use of individual interviews with the Ss.

Statistical analysis, by the use of Chi Square procedures, revealed significant differences in the overall response patterns of children for each of the four pictures. The children chose positive responses coded as romantic, social, or circumstance more often than they chose a hostile response. Only a small percentage of hostile responses were elicited when the children were shown four pictures which depicted different heterosexual interaction possibilities.

A significant interaction effect of Response x Sex x Age was observed for Figure 1 in which a boy and girl have been shown sitting side by side. Older boys nine and ten years of age gave more romantic responses, while older girls nine and ten years of age gave markedly fewer romantic responses and chose responses of a social nature instead. The responses to Figure 3, a boy running after a girl, resulted in a significant Response x Sex interaction. Girls chose a romantic response more often than boys while boys tended to choose a circumstance response to the action picture designated as Figure 3. There was no significant effect due to the presence or absence of opposite siblings. Overall findings were in general agreement with work done by Broderick and Rowe (1968) and Broderick and Weaver (1968), as boys and girls exhibited high acceptance of one another and expressed few hostile ideas concerning interpersonal social relationships. The subjects of this study interpreted the heterosexual society in a basically similar way in both age groups for all pictures.

### Conclusions

It is evident from the results of this study and other work such as that of Broderick and Weaver (1968) that a reexamination should be conducted on a broader scale, and with a more heterogenous group than was used in this study to determine if the findings reported here can be substantiated.

A further conclusion that may be drawn from this study would be that there was relatively little hostility between the sexes in children seven to ten years of age, which would be contrary to earlier findings and generally accepted norms (Furfey, 1930; Seago, 1933; Moreno, 1934).

Evidence appears to be accumulating that a positive shift in heterosexual social finding for younger children might be occurring. This should be considered when home, family and school activities are planned. Adults need to be mindful of this trend in their own personal relationships with children in order not to insist upon certain stereotyped patterns of behavior for members of both sexes.

#### Recommendations

The level of positive social interaction for boys and girls of elementary school age was significant in the present study. This study was in agreement with work done in the fifties and sixties, and indicated that related studies need to be undertaken to further substantiate the apparent differences in social relationships of children from those of several decades ago.

Investigation of attitudes toward heterosexual social relationships between boys and girls of teachers and parents of elementary school-age children might help focus where the difference in attitudes of adults and children exist in this area.

Highly controlled and extensive studies need to be undertaken to identify social communication norms for elementary school-age children. Work started in the fifties by Lewis, continued by Broderick through the sixties, and further pursued in this study have served as a substantial foundation upon which more definitive work could be based.

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APPENDIX A

Statement to Parents

Research for the purpose of achieving greater understanding of child development and behavior is underway in many parts of the United States, and is providing useful information for parents, teachers, and others who work with children. Such research is being carried out in this area by staff and graduate students of the Child Development Section, Department of Housing, Management, and Family Development, College of Home Economics at V.P.I. & S. U. We feel that it is important for parents to be aware of research projects in which their children may be asked to participate.

Mrs. Shirley Gerken, graduate research assistant in child development, is conducting a study of social development of children, ages 7 through 10, at Margaret Beeks Elementary School. Permission to conduct this research has been granted by the Montgomery County School Board and the school principal. Teachers whose students will be involved have also been informed of the project, and they have agreed to cooperate.

Certain children have been selected to participate in the research project on the basis of age and whether or not they have brothers and/or sisters. These children will be interviewed individually by Mrs. Gerken, who will record their responses to a series of cartoon-type pictures depicting typical social situations. These responses will be

coded for analysis using statistical procedures. The interview will be approximately fifteen minutes and the privacy of those participating will be maintained, since the results will not be identified with the child's name.

It is hoped that the information obtained will give clearer understanding of the social development process of children in the 7 through 10 age group, and will indicate whether or not this process is influenced by the presence or absence of brothers or sisters in the family.

Parents having questions about this research project are invited to call Mrs. Gerken at 951-1012.

Statement for Students

Some boys and girls in this class have been selected to be part of a study for the area of child development at V.P.I. A certain number of boys and a certain number of girls, ages seven, eight, nine and ten, were needed so that some students were selected from each class that has those ages. Mrs. Gerken will be talking with you for a few minutes one day soon. She will show you some pictures and ask you to tell about them. There are no right or wrong answers. What you have to say will give ideas that will be helpful to her. She will use a tape recorder so that your answers can be coded and analyzed. Your name will not be used at any time in recording your answers. After you have talked with Mrs. Gerken, please do not tell others in your group about the pictures as she would like to have your own ideas when it is your turn. After all the answers from students are collected and analyzed, we will understand more about how boys and girls your age communicate or get along together. A copy of the report will be given to your library so that your teachers and you can read it. Mr. Earp from the county school board office and Mr. Morgan, your principal, have given permission for this study to be done. Your teacher is cooperating by allowing you to leave the class to talk with Mrs. Gerken.

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HETEROSEXUAL SOCIAL COMMUNICATION  
INVOLVING CHILDREN OF MIDDLE  
CHILDHOOD YEARS

by

Shirley Humphries Gerken

(ABSTRACT)

The present study investigated heterosexual social communication between boys and girls seven through ten years of age using a series of cartoon pictures to elicit responses during individual interviews. The sample consisted of 160 public school children enrolled at the Margaret Beeks Elementary School, Blacksburg, Virginia.

Chi Square analysis revealed significant differences in overall response patterns for each of the four pictures ( $p < .01$ ). Positive responses coded as romantic, social or circumstance were chosen more often than hostile responses. A significant interaction effect of Response x Sex x Age was observed for Figure 1, boy and girl sitting side by side. Older boys gave more romantic responses, while older girls gave markedly fewer romantic responses and chose responses of a social nature instead. Responses observed for Figure 3, boy running after a girl, resulted in



significant Response x Sex interaction. Girls chose a romantic response more often than social, circumstance or hostile responses, while boys chose circumstance responses. There was no significant effect due to presence/absence of opposite siblings.

Results were discussed in relation to previous findings and recommendations for further study were suggested.