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Development and validation of projective measures of the affiliation motive for use with young children.

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DEVELOPMENT AND VALIDATION OF PROJECTIVE MEASURES
OF THE AFFILIATION MOTIVE FOR USE WITH YOUNG CHILDREN

A Thesis Presented
by
JOLENE KAWEAH HART

Submitted to the Graduate School of the
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Psychology
DEVELOPMENT AND VALIDATION OF PROJECTIVE MEASURES
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CHAPTER I
INTRODUCTION

The purpose of this study is to develop new measures for assessing the affiliation motive in young children, and to establish construct validity for the measures. This is an initial step for their later use in differentially predicting social behavior.

Several semi-projective techniques were used to assess a number of different motives as part of a large research project. The present study will focus on measurement of the affiliation motive due to the rich history of research associated with it. Three basic methodological techniques for measuring affiliation motivation have been used in the past: projective, self report, and behavioral. The various measurements have shown different patterns of relationships with other personality and behavioral variables, which has led to the belief that there are two distinct affiliative orientations: approach and avoidance (de Charms, 1957; French & Chadwick, 1956; Boyatzis, 1973; Mehrabian & Ksionzky, 1974). Briefly, the approach aspect can be defined as an enjoyment of others' company and the desire for warm interpersonal relationships. Avoidance motivated affiliation involves fear of rejection; a need to be liked.

Projective Measures

Shipley and Veroff (1952) developed a need for affiliation measure (nAff) using TAT pictures and arousal conditions. They
viewed affiliation as arising from a need for security. Expressions of imagery concerned with anxiety over separation and rejection were scored as indicative of the need for affiliation. Not surprisingly, high scores on this assessment reflected what is now known as the avoidance orientation. Later, this scoring system was revised to include concern over establishing and maintaining positive relationships (Atkinson, Heyns, & Veroff, 1958). The procedure for arousal of the motive in both studies consisted of a group of peers evaluating each other on a sociometric measure just prior to administration of the TAT pictures. Boyatzis (1973) has suggested that this arousal condition activated fear of rejection so that individuals who scored high were likely to be those with strong avoidance motivation. In fact, under both scoring systems high nAff was negatively correlated with popularity (Atkinson, Heyns, & Veroff, 1954). This indicates that the same variable (avoidance) was being tapped as a function of arousal conditions rather than scoring procedure.

The TAT nAff measure (latter scoring system) has been the most widely used in research. A brief review of some of the past findings will give a better picture of the avoidance motivated affiliator. Need for affiliation was found to be positively correlated with need for approval (Marlowe & Crowne, 1964). High nAff’s were also rated by peers as being more approval seeking and egotistical than lows (Atkinson, Heyns, & Veroff, 1954). They were more productive in cooperative than in competitive groups (de Charms, 1957). They wrote more letters, visited and called friends more frequently than lows.
(Lansing & Heyns, 1959), and spent more time communicating with others at work (Noujam, 1968). Byrne (1961) found that subjects with high need for affiliation reported more nervousness while supposedly being observed and rated on attractiveness than those with low nAff. This further supports the notion that the nAff measure identifies people who are made anxious by affiliative threat.

Another projective measure, the French Test of Insight, involved giving subjects brief vignettes and asking them to explain the character's behavior (French, 1958). It was based on the assumption that people would attribute motives and needs to the character which are important to them. An arousal condition was used which maximized affiliative cues without emphasizing possible rejection. Subscores were obtained for goal motivated (approach) affiliation and threat motivated (avoidance) affiliation. Popularity was found to be associated with high approach scores and low avoidance scores (French & Chadwick, 1956). So, this scoring system and arousal procedure was able to differentiate between the two orientations.

**Behavioral Measures**

Schachter (1959) induced anxiety and asked subjects whether they would prefer to be alone or to wait in a room with other subjects. The preference was then used as an index of affiliation motivation. This method only identifies people who choose to affiliate when anxious or frightened. But, this is only one possible reason for desiring interaction with others. This assessment may be more a function of dependence than it is of affiliativeness.
Self-Report Measures

The Edwards Personal Preference Schedule (EPPS) includes a measure, based on Murray's needs (1938) of the relative strength of desire to be with others, to cooperate and reciprocate. A questionnaire based on this measure was found to correlate with overall scores on the French Test of Insight (French, 1958) so it may tap both the goal and threat aspects of affiliation.

The FIRO-B affectional score consists of statements of liking to be with others. It is a measure of self perceived behavioral tendencies from which motives are inferred. The affectional score was found to be negatively correlated with TAT nAff (Conners, 1963).

Mehrabian and Ksionzky (1974) developed two separate scales to distinguish between the two motivational orientations. The Affiliative Tendency (AT) scale measures approach and the Sensitivity to Rejection (SR) scale measures avoidance. These two scales were not correlated with each other. AT was positively correlated with popularity and negatively correlated with loneliness (Mehrabian & Ksionzky, 1974). Affiliative Tendency was also positively correlated with Jackson PRF indices of affiliation, flexibility, exhibition, spontaneity, adventurousness, nurturance, succorrence, and playfulness (Strumpfer, 1974). Sensitivity to Rejection was found to be negatively correlated with popularity and positively related to loneliness (Mehrabian & Ksionzky, 1974). The SR scale also showed negative associations with the Jackson PRF indices of flexibility, dominance, autonomy, nurturance, and exhibition and a positive
correlation with harm avoidance (Strumpfer, 1974).

In summary, avoidance motivated affiliators are overly concerned with being liked and approved of. They spend a great deal of time socializing because they need the positive feedback from others in order to feel secure. Unfortunately, they are not popular, possibly because they try too hard; their needs are very evident and others are made uncomfortable by this. People with high approach concerns are apt to be more relaxed and spontaneous in interaction with others. They take ample opportunity to socialize but not to the extent of constantly pursuing others. They enjoy developing warm relationships, not in order to satisfy a need for security, but because they genuinely like other people.

Measures Used in this Study

In the present study, one measure of the affiliation motive was obtained through a projective interview in which children enacted everyday situations with dolls. It is projective in the sense that children, by identifying with a doll, indicated their own desires and preferences in interactions. It also resembles a paired choice self report measure because the situations which were given were similar to real life encounters and children chose between several possible outcomes. These choices are conscious reports about what they would like to do, or would normally do in the situations. There was very little elicitation of unconscious fantasy as in the TAT measures, but expressions of feelings about either playing with or not playing with others were evoked. It is believed that the affiliation score
will be a function of positive approach tendencies rather than avoidance, since no conditions which would be expected to arouse fear of rejection were presented in the interview.

The other techniques for assessing affiliation motivation involved showing children pairs of pictures depicting either successful (desired) or unsuccessful (undesired) outcomes concerning four goals: affiliation, prosocial, dominance, and dependence. For the desired outcomes measure, children were to pick the picture from each pair which they would most like to happen to them. In the undesired outcomes measure they were asked to choose the worst one that could happen. This method is similar to the EPPS in that it assesses the importance of affiliation relative to the other three motives, resulting in a hierarchical arrangement. Both of these measures were designed with the intention of identifying approach oriented affiliative concerns, although it is possible that fear of rejection may have been aroused with the picture about an unsuccessful affiliative attempt.

The major concerns of this study are: 1) to assess the construct validity of these three measures by showing that they have the expected associations with some behavioral indices of affiliation and with some parent variables; 2) to ascertain which elements of affiliation they reflect by examining the pattern of correlates; and 3) to address the question of whether these measures are interrelated to the extent that they might be combined to form a more sensitive unitary measure of affiliation motivation.
Motive-Behavior Relations

The motive measurements will be compared with ratings of affiliative behavior obtained through observation of peer interaction during two play sessions. In the first session subjects played with two friends and in the second session with two strangers. Regardless of affiliative orientation, high scores on the motive measures should be associated with greater levels of affiliative behavior if the measures are discriminating between different strengths of affiliative goals. Certain social situations may differentially arouse avoidance or approach motivation, but generally it is reasonable to expect that children who are highly concerned with affiliation, for whatever reasons, will exhibit more affiliative behavior in the play sessions.

Mehrabian and Ksionzky (1974) reported that those high on the Affiliation Tendency scale emitted and received more affiliation in interaction with a stranger than those with low scores on the scale. Need for affiliation (TAT) was significantly correlated with affiliative behavior toward strangers in a waiting room situation (Sherwood, 1966). Those with strong avoidance concerns would also be expected to interact more with friends, based on the Lansing and Heyns findings (1959).

Other studies have been unable to show validity of TAT nAff as measuring a drive which is related to behavior (Child, Kitty, & Storm, 1956; Skolnick, 1966). This could be because they did not consider other mediating factors which complicate the relationship between motives and behavior. Whether or not a particular motive will be
expressed through behavior depends jointly upon its importance to the person (e.g., the intensity of feelings aroused with it), upon the nature of the situation, and upon the level of competency possessed relevant to attaining the goal. A motive lies "dormant" so to speak, until certain situational characteristics or certain internal processes arouse or activate it. The "dormant" motive and its associated cognitive network in turn influence how a situation will be perceived; whether it will be interpreted as a potential opportunity to satisfy the goal (Staub, 1978). An important aspect of the cognitive network which in part determines the "activating potential" of a situation is expectancy, or the degree to which one feels confident that action in that particular situation is likely to be successful in bringing about the desired outcome. Expectancy depends upon prior experience in similar situations and upon competency. One must have the ability or skill to perform the appropriate actions which will lead to attainment of the goal. Thus, beliefs or knowledge about one's skills or competencies will be a major factor in expectancy. Theoretically, given a motive with strong affective links and relevant behavioral competency, plus a situation with high activating potential for that motive, there is a high probability that action will be taken toward attaining the desired goal; the motive will be expressed in behavior. Supporting this notion, Fishman (1966) found that TAT need for affiliation was related to the number of interpersonal acts in a social situation only when subjects had previously expressed positive expectations about the interaction.
In this study, the play sessions which children participated in are thought to be situations which would naturally arouse affiliation motivation. It should also be noted that children were not instructed to play together, but told they could do whatever they wanted. There were plenty of toys available for solitary play so the amount of interaction could vary. In addition to the motive measures, children's social competency was assessed through role playing with puppets. It was defined as possession of appropriate skills for initiation and maintenance of interaction with both friends and strangers in the role play situations.

By taking different levels of social skill into account, the motive-behavior relationship should increase. It would be expected that a high level of motivation would be manifested in action to the greatest extent in children who possess positive social skills. Children with strong affiliative preferences who lack the appropriate competencies would make fewer attempts at interaction due to negative expectancy, and the affiliative overtures they make would be less successful, so that the amount of sustained interaction with others would be less.

To further examine the validity of the three motive measures, they will be compared to the number of friends children listed on a sociometric measure. Mehrabian and Ksionzky (1974) reported that level of affiliative interaction with strangers was positively correlated with the number of friends reported. The sociometric measure could thus serve as a useful criterion.
Motive Measures and Parental Practices

One way to sort out what elements of affiliation each measure taps is to examine the pattern of relationships each shows with some parental variables which were assessed in an extensive questionnaire. There are a few studies and some theories pertaining to the parental practices which might be associated with development of approach and avoidance concerns in children. Shipley (1958) found that subjects high in need for affiliation more often reported having parents who were harsh and physically punitive. It is likely that children with parents who express disapproval through severe punishment and rejection would be very concerned with trying to gain approval and avoid rejection in their relationships with other people. This would involve a continuous need to establish and maintain friendly relations, i.e., avoidance motivated affiliation.

Berens studied fifth grade children and found that for girls, high need for affiliation (TAT) was predicted by mothers' encouragement of achievement and of compliance with restrictions, and by low encouragement of independence. High nAff in boys was predicted by low levels of positive control by mothers, low levels of positive interaction with mothers, pushiness, and late demands for caretaking (1976). The above findings suggest that avoidance motivated affiliation may be associated with authoritarian parenting; with strict control, low warmth, and low encouragement of independence. If these parental practices are related to any of the motive measures in this study, it could indicate that the avoidance orientation was
assessed.

Unfortunately, none of these studies dealt with approach oriented affiliation. There are some theoretical notions, however, upon which hypotheses can be based. Mehrabian and Ksionzky (1974) theorized that approach affiliative tendencies derived from positively reinforcing relationships in early childhood. So it would be expected that high levels of parental warmth would correspond to approach affiliation. However, warmth considered by itself may not distinguish clearly between children with different levels of affiliation motivation.

Another important factor in the goals children have is the value which parents place upon the goals. It is presumed that children are more likely to develop strong affiliative preferences if their parents value affiliation and encourage it. The manner in which parents communicate their values and guide their children can greatly influence the extent to which children internalize these values and develop behavioral tendencies. Children are more likely to identify with parents and internalize their values when the parents are warm, and when their desires are communicated clearly, with firm but not restrictive control (Staub, 1979). This pattern of warmth combined with reasonable control is the authoritative parenting style (Baumrind, 1971). A measure of approach oriented affiliative goals should therefore be positively correlated with parents' belief that affiliation is important, along with authoritative parenting.

If the measures all show similar patterns of relationships with parental practices, it can be concluded that they reflect the same affiliative orientation, and that they can contribute to a unitary
measure of affiliation motivation. This aggregate measure could then be effectively utilized for the differential prediction of social behavior.
CHAPTER II

METHOD

Subjects

Kindergarten children attending eight area public elementary schools and one private school participated in this project. Subjects' names and addresses were obtained through the school system. Letters requesting participation were either mailed directly to parents or in some cases distributed to the schools to be brought home by the children. The introductory letters explained the purpose of the study, how much time it would involve, and also mentioned a monetary compensation of fourteen dollars to be received for their time and effort. Consent forms were returned by mail. A second letter was sent to parents not returning consent forms after two weeks. Seventy-seven children, 38 female and 39 male, completed all phases of the study.

Design

The entire project consisted of three major phases. First, structured interviews were conducted with the children, predominantly for the purpose of assessing motives and social skills. A number of separate measures were involved. Second, the children participated in play sessions, in groups of three, which took place at the University. This served as the opportunity to observe social
behavior. Third, the parents completed an extensive questionnaire.

**Materials**

**Interview**

The interview consisted of seven projective stories for measuring motives, three role play stories for assessing social skills, measures of desired and undesired outcomes, and a sociometric measure.

In the projective stories, the child used dolls (one of which represented him or herself) to play out hypothetical everyday situations, which took place in a make-believe classroom. Each story centered around a situation which was designed to elicit one of the following motives: affiliation, approval, dependence, prosocial, dominance, competition, and aggression. The interviewer introduced each situation and guided the child through completion of the story by asking pre-established questions such as "What would you like to have happen? Why? How do you feel about doing this?" Thus, each story followed a predetermined structure within which the child had to make certain choices through action, as well as verbalize preferences, reasons, and feelings. There was also flexibility, allowing for elaborations by the child as long as these were deemed relevant to the story or to one of the other goals of interest.

Only the affiliation story was looked at in the present study. The initial step in this story involved having the children indicate whether they preferred to play alone with an interesting toy or to play with two friends. If they chose the friends, the interviewer then informed them that the friends had to go do something with the
teacher. The children were then asked how they felt, and what they would like to do now. If the children chose to play with the toy in step one, the interviewer then brought the two friends over and asked if they could play. If the children said no, the story ended. If they responded yes, it was all right for the friends to play, the story continued with the interviewer taking the friends away and asking how they felt, and what would they like to do then. The complete interviewer "script" for this story is included in Appendix A.

The desired outcomes measure utilized simple black and white drawings depicting some children involved in various social situations. There were four pictures, each showing a successful outcome in relation to one of four goals: affiliation, dependence, dominance, prosocial. For example, the picture for affiliation showed a smiling child sitting with three other children. A brief story was also told to accompany each picture. The affiliation story involved the child joining other kids and being accepted; always having someone to play with. These four stories, along with the pictures, can be found in Appendix A.

Subjects were asked to identify with the smiling child in each picture and imagine that the stories were happening to them. The pictures and accompanying descriptions were presented in pairs so that each goal was paired once with each of the other three (six combinations of pairs in all). Children were asked to point to the picture in each pair which they would most like to happen to them, i.e., which one was the best. The order of presentation was counterbalanced
throughout the interview such that each goal-picture was shown first equally often.

The undesired outcomes measure was parallel to the desired outcomes except that the pictures and stories concerned unsuccessful attempts at the same four goals. In the affiliation picture, a frowning child was depicted standing alone, while several other children played ball. The story went as follows: "Outside, you wanted to join the other kids playing ball, but they said the teams were even so you couldn't play. It looks like this time you have nobody to play with." This description intentionally indicated that the affiliative attempt was unsuccessful because of situational rather than personal factors, so that feelings of rejection would be minimized. (Refer to Appendix A for the other three stories and all pictures.) Again subjects were instructed to pretend that the stories were happening to them. The pictures were presented in pairs and for each subject the order of presentation was different than it had been for the desired outcome measure. This time children were asked to point to the picture in each pair that was the worst one that could happen.

The sociometric measure involved asking the children four questions about who they play with. 1) Who in your class do you like to play with the most? 2) Who else do you like to play with a lot? 3) If you could invite three kids in your class to your house to play, who would you invite? 4) Is there anyone else in your class that you haven't told me about yet who you like to play with? This information was used later in determining which children would be
together in the "Friends" play session.

Three role play stories were enacted with hand puppets for the purpose of assessing children's social skills. The interviewer played a different role in each story, while the children played themselves. That is, children were not instructed to take on different roles, but were expected to interact "naturally" with the interviewer puppet. The complete "scripts" for these stories can be found in Appendix A. Each will be described briefly here.

In the first role play, the interviewer and child puppets were "friends". Children were instructed to initiate play with the other puppet, who was not agreeable at first. Then a small dispute arose over who got to keep the picture that they had painted together. Through this enactment, an assessment could be made of the techniques used by children to initiate interaction and of their ability to negotiate cooperatively during the dispute.

The interviewer played a new classmate from a foreign country in the second role play story. Children were instructed to try and befriend the stranger. The interviewer (new kid) was responsive to the children but did not speak much English, thereby creating a communication problem. This role play measured children's ability to appropriately adjust their behavior to the situation, by talking slowly or using nonverbal gestures.

In the third story, the interviewer played an obnoxious classmate who pushed into line in front of the child's puppet. The purpose of this role play was to measure verbal assertiveness skills.

To administer the above described measures, each interviewer was
equipped with the materials listed below.

1) Eight small plastic dolls were used for the projective stories. They were approximately two inches tall and had moveable arms and legs. Five of these were white skinned with either blonde or brown hair; two had light brown skin and dark brown hair; and one had dark brown skin and dark brown hair. Clothing consisted of either blue, yellow, or orange painted on pant suits. Aside from these color differences, all the dolls were identical. Gender-wise, the dolls were neutral so that they could easily be used to represent either sex.

2) A larger plastic doll, approximately 3½ inches in height, represented the teacher in the projective stories.

3) Ten small wooden blocks were used to build the "classroom" and to represent toys or other props. They varied in length from one to four inches, and all were about one-half inch square in width.

4) Four puppets were used in the role play stories. They were hand made from socks, with buttons for eyes and yarn for hair.

5) One small cassette tape recorder was used.

6) Prepared data sheets were needed to note the children's choices on the desired and undesired outcomes measures, since these were nonverbal and were not recorded on the audiotapes.
Play sessions

The play sessions took place in a twelve by fourteen foot windowless room with a one-way mirror all along one wall. Two video cameras were located behind the mirror, in the adjacent room, and microphones were attached to light fixtures in the play room. There were also a table and three chairs, a sofa, a work bench, and various toys in the playroom.

Behavioral rating scale

Ratings were made by the experimenters following each play session, concerning to what extent a child had expressed behaviors indicative of each of the following goals: affiliation, approval, prosocial, dominance, competition, dependence, and aggression. The five point rating scale consisted of: never, seldom, occasionally, often, nearly all the time. The rating amounted to a general behavioral measure based on the experimenters' observations and judgements of the child's activity throughout the entire play session. In making a judgement concerning the affiliativeness of a child, the most weight was given to the amount of time the child spent playing with others. However, if the child made a number of unsuccessful attempts at interaction, this was also taken into consideration as indicative of affiliativeness.

Parent questionnaire

This 27-page questionnaire consisted of six distinct subsections. Only the four parts used in this study will be described here. They have been included, in part, in Appendix B.
The first section, called "I Want My Child To..." examined the goals parents have for their children, what kind of person they want their child to be. There were 17 items, some dealing with motives (affiliation, dependence, dominance, prosocial) and some dealing with self awareness and general value systems. Responses were made on a five point scale with +2 being "I would very much like my child to be this way" and -2 being "I would very much dislike my child to be this way."

Part two, the "General Beliefs List," was designed to assess parents' attitudes about various childrearing orientations. The 23 items included statements concerning warmth, control, individualization, independence training, and encouragement of affiliative tendencies. Responses were again made on a five point continuum, ranging from strongly disagree to strongly agree.

Part three, the "Everyday Life Situations and Reactions List" consisted of 18 statements about a child's behavior, either in peer interaction, parent-child interaction, or in a general sense, for example "your child did well at school." Some of the actions were ones which would most likely be considered positive, and others were negative in nature. Also included was a list of 12 positive reactions and 12 negative reactions which a parent would be likely to have. For each child behavior statement, the parent was asked to indicate their most frequent and second most frequent reaction from the list. A space was also available where parents could write in other reactions not shown on the list. The reactions list covered the major reward and punishment orientations: affection and love withdrawal, material
reward and punishment, physical punishment, verbal approval and disapproval of the child as a person (internal focus) and of specific behavior (external focus), and induction--pointing out the positive or negative consequences which the behavior has on others.

The final section was for obtaining additional information about parents' marital status, education, occupations, number and ages of siblings, etc. Also, relevant to this study, parents were asked to rate the quality of their child's relationships with peers. The five point scale consisted of: 1) problems in relationships with peers; 2) some difficulties in relationships with peers; 3) average relationships with peers; 4) good relationships with peers; and 5) very good relationships with peers.

Procedures

Interview

The participating children were first interviewed at their schools on two occasions. They were individually taken out of the classroom by the interviewer and brought to a quiet, private or semi-private place, which varied from school to school. The dolls and blocks were laid out on a table and the interviewer explained what they were going to do. (These introductory instructions for the projective stories are included in Appendix A.) The child picked which doll she/he wanted to use to represent him/herself and then the interviewer began introducing the first story.

The first interview lasted from 15 to 30 minutes, depending on the amount of elaboration by the child. It consisted of the
affiliation, dependence, approval and prosocial stories, the desired outcomes measure, and the sociometric measure, in that order. The second interview took place from one to four weeks after the first. It's duration was approximately 30 minutes. This included the dominance, competition, and aggression stories, the undesired outcomes measure, and the three role plays. Also, immediately after administration of the undesired outcomes measure, the four desired outcomes pictures were laid out together. Children were reminded with short summaries of the events each depicted, and asked to again choose which one they would most like to happen. The picture chosen first was removed and children were asked to pick the best one of the remaining three. This procedure continued until a rank ordering of the goals was obtained. This rank ordering of desired outcomes served two purposes: to reinstate pleasant feelings in the children; to function as a possible temporal reliability check for the desired outcomes measure administered in the first interview. The interviewers were two female graduate students. The same interviewer always conducted both interview sessions with a given child.

Play sessions

One to eight weeks after both interviews were completed, children were brought to the University to play together in groups of three (same sex). In the first play session, the three children were classmates (Friend Session). The sociometric measure was used in the attempt to match children with those who they liked to play with but who were not best friends. The intention was to avoid situations
where two children were best friends, such that the third child might feel left out. Thus, each child had to be mentioned by at least one, and preferably both of the other children, on the sociometric measure. In 27% of the cases, there were only three children of the same sex participating from the same class so the above matching criteria could not be met.

The second play session was the Stranger Session, in which the three children were from different schools and did not know each other. This session occurred two to eight weeks after the first. Each play session lasted for 1½ hours.

Upon the arrival of all three children, they were taken together into the playroom and left alone there with the instructions that they could "play anything they liked." They were not told that they were being watched or videotaped. During the first 25 minutes, there were a variety of toys to play with. After this period, the Experimenter came into the room and removed all the toys, giving the explanation that someone else needed to use them. The children were then taken to the bathroom and taken for a short walk while the videotapes were changed. They were then brought back into the playroom and instructed to wait while the experimenter prepared a snack. This "No Toys" period lasted for five minutes. The snack was then brought in and they were left to eat for five or ten minutes. The E then brought in two puzzles and one toy which was considered to be interesting and valuable. After ten minutes in the "Valuable Toy" period, the Experimenter came in with a bag of dress-up clothes and removed the valuable toy, making sure
first that everyone had gotten a turn to play with it. Fifteen minutes was allowed for "Cooperative Play". Then the Experimenter brought in the last toy, a competitive game. The dress-ups were left in the room and the children had fifteen minutes for the "Competitive Play" period. Then the E came in and informed them that it was time to stop playing. The children were asked some wrap-up questions about how they liked playing here, and then taken back to their parents in the waiting room. Immediately following every play session, the three experimenters jointly filled out a Behavioral Rating Scale for each child.

The procedure for both sessions was identical up until the Valuable Toy condition. Different toys were used in the second session for the Valuable, Cooperative, and Competitive conditions so that children would not be bored with the same things they had played with the first time. Although the particular toys differed, they were believed to be equivalent in nature to those used in the first session. Thus, the conditions were parallel but not identical. The purpose of periodically changing the play situation, by introducing different types of toys, was to create opportunities for the expression in behavior of all the different motives of interest. Each new toy was intended to activate a certain motive. For instance, the competitive game was to arouse achievement concerns and competitiveness, which might not otherwise be aroused and manifested in the course of the play session. These manipulations of the activating potential of the situation can then be examined in relation to the assessed strengths of the motives.
Parents were asked to fill out the questionnaire while they waited during the second play session. Whichever parent had brought the child was the one to complete the questionnaire. In most cases this was the mother, although sometimes it was the father or the two parents together who filled it out. Parents were usually able to complete the questionnaire in the 1½ hours, but if not finished they took the uncompleted portions home and returned them by mail.

There were three experimenters present at each session, only one of whom had contact with the children. The other two remained in the equipment room and ran the video cameras. There was a pool of ten experimenters altogether, so the combination of three E's at any one session differed. However, only five of these E's were selected to act as "main experimenter" and be in contact with the children. These main E's used the same instructions and behaved in a similar manner toward the children, which was warm but not especially talkative or interactive.
CHAPTER III

RESULTS

Scoring Procedures for Child Measures

All interview tapes were transcribed in order to make scoring easier and more accurate.

Affiliation story

The complete scoring system for this measure can be found in Appendix C. Briefly, a "tree" was established such that the possible responses at each choice point in the story were represented by branches. A numerical value was then assigned to each of the branch endings along a continuum of least affiliative (0) to most affiliative (6). Children received the appropriate score corresponding to their pattern of responses.

To establish reliability for this coding system, the affiliation stories from twenty interviews were scored independently by two coders. The number of times in which the two coders agreed upon the scores, divided by the total number of scores (20) was used as an index of reliability. The obtained percent agreement was .91. If both scorers decided that a particular child's story was uncodeable, this was considered an agreement. For all cases where both coders assigned scores, the reliability coefficient (r) was .98. Once reliability was established, the coders proceeded to score the remaining interviews separately. A second reliability check was made
after about 75% of the interviews had been scored. Percent agreement was .92 and the reliability coefficient (r) was 1.0. The actual range of scores on this measure was from 0 to 6, with means for boys and girls respectively at 2.92 and 3.05 (sd = 2.14, 2.07).

**Desired-undesired outcomes**

The score for each of these measures consisted of the number of times the child chose the affiliation picture over the others with which it was paired. Three was the highest score, indicating that affiliation was chosen over all three of the other goals. A score of zero means that affiliation was never picked. Scores of one-half were also assigned when there was a clear tie between two goals, i.e., when a child said he/she liked both pictures the same. Ultimately, if a child was consistent, a hierarchy of the four goals would result. For instance, affiliation could be chosen three times, dependence chosen twice, prosocial chosen once, and dominance never picked. Although the affiliation score was the only one used in the present study, it is interesting to note that a consistent hierarchical arrangement of the four goals was only realized by 48% of the subjects on the desired outcomes measure and by 47% of the subjects on the undesired outcomes measure.

The means and standard deviations for the desired outcomes (affiliation) measure were 1.73 (.79) for boys and 1.55 (.76) for girls. On the undesired outcomes measure, the values were 2.0 (.93) and 1.84 (.84) for boys and girls, respectively.
Role play

Complete information on the scoring systems for the three role play stories is included in Appendix C. These systems were developed similarly to the affiliation story scoring method, where the possible categories of responses in each part of the story were ordered along a continuum of least skilled to most skilled, and assigned numerical values. The scoring procedure involved deciding which numerical category the child's responses corresponded to, and then summing the values obtained in each part of the story.

To establish reliability, the three role play stories for twelve subjects were scored independently by two coders. The percent agreement was calculated in the same manner as with the affiliation measure. The obtained agreement was 85% on the first story and 73% on the other two. If one coder assigned a score and the other one coded the story as "unscoreable", this was considered to be disagreement. For all cases where both coders assigned scores, the reliability coefficient \((r)\) was .89 for role play one, .96 for the second, and .93 for the third story. After reliability was obtained, one coder scored all the remaining role play stories.

The actual range of scores on the first story were from one to nine. A low score indicates that the child did not initiate interaction in a friendly manner and that he/she was not able to negotiate skillfully when a dispute arose about who got to keep the picture. Children with high scores were those who initiated play in an appealing manner, that is, in such a way that other children would be very likely to want to interact with them. These children were
also able to maintain friendly relations during the dispute by suggesting mutually acceptable solutions to the problem. The mean score on this social skill measure was 5.4 (sd = 1.88) for boys and 6.03 (sd = 1.01) for girls.

Scores on the second role play ranged from zero to eight. Shyness and inability to maintain interaction with the "new kid," who didn't speak English, resulted in a low score. A high score represents friendliness and attempts to promote interaction by appropriately adjusting the level of communication so that the foreigner could understand. The mean score on this story was 5.57 (sd = 2.6) for boys, and 5.97 (sd = 2.15) for girls.

The third role play story had a range of scores from zero to nine. Children who were passive or who told the teacher when the "kid" butted into line in front of them received low scores. Aggressiveness was given a middle score. Verbal assertiveness resulted in a high score. The mean scores for this measure were 6.03 (sd = 2.22) and 6.68 (sd = 2.24) for boys and girls, respectively.

It should be noted that these social skill measures, like the motive measures, have no previously established validity. Social skill is considered to be a mediating factor in the motive-behavior relationship. Validity of the role play measures can be established to the extent that results support this theoretical relationship.

Behavior ratings

Two affiliative behavior scores were obtained, one for the Friends play session (B1) and one for the Strangers session (B2).
These scores are the ratings of behavior during the play sessions, agreed upon by the three observers. Unfortunately, reliability could not be established between the various rating threesomes prior to the play sessions. It was believed that consistency would be enhanced by the joint rating procedure. The validity of the behavior ratings is to be established at a later time, by comparing them to the specific behavior scores obtained from coding of the videotapes, when these scores become available. It is assumed that the behavior ratings are, for the most part, indicators of the amount of time children spent interacting with others. However, some children, who attempted to interact but were unsuccessful, received slightly higher scores than they would have if the ratings had been determined solely by amount of sustained interaction.

The actual range of scores for the first session was from two to five. There were no children who "never" interacted. This is certainly not surprising given that they were in a small room with classmates whom they knew. The mean rating for boys was 4.17 (sd = .85) and for girls it was 3.76 (sd = .92). The ratings for the stranger session ranged from one to five, with a mean for boys of 3.92 (sd = .98) and for girls of 4.08 (sd = .94). Notice that these ratings also tended toward the more affiliative end of the scale, presumably due to the social "demands" of the situation and to familiarity with many of the toys. Spending an hour and a half in a small room with others is bound to lead to a certain amount of interaction, even though the children were initially strangers.
Sociometric measure

The total number of nonredundant names children listed in response to the four sociometric questions was considered as an additional criterion index of affiliativeness. This index showed only limited correlations with the other child measures. It may have been indicative of desire for affiliation in some children, and of actual affiliative tendencies in other children, resulting in the weak linear relationships. The usefulness of this measure was therefore limited, and it will not be discussed further.

Construction of Parent Measures

Encouragement of affiliation and dependence

A reliability test was performed on the four affiliation encouragement items from the General Beliefs (GB) and I Want My Child (IW) scales. These items were IW8, IW17, GB18, and GB23. (See Appendix B for complete listings.) The obtained Cronbach alpha was .01. Obviously these items didn't represent a homogeneous measure. Similarly, the Cronbach alpha for the four encouragement of dependence items (IW1, IW13, GB8, GB9) was .20, also low.

In order to further explore their natures, a factor analysis was performed on these affiliation and dependence items. One affiliation item (GB18) was not included due to the extreme skew in its distribution. The Maximum Likelihood solution gave three factors. The rotated factor loadings and brief item descriptions are presented in Table 1. On the first factor two affiliation items had high loadings in the opposite direction, and a dependence item also loaded
**TABLE 1**

Rotated Factor Loading Matrix for Seven Value-Affiliation and Value-Dependence Items

<table>
<thead>
<tr>
<th></th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IW8</td>
<td>-.3905</td>
<td>.3539</td>
<td>.1223</td>
<td><strong>Affiliation:</strong> Enjoy playing with others, regardless of the activity.</td>
</tr>
<tr>
<td>IW17</td>
<td>.6595</td>
<td>.1022</td>
<td>.1833</td>
<td><strong>Affiliation:</strong> Be able to play alone and enjoy it. (Scoring was reversed)</td>
</tr>
<tr>
<td>GB23</td>
<td>-.0103</td>
<td>.5530</td>
<td>-.1837</td>
<td><strong>Affiliation:</strong> Important to have frequent social contact with other children.</td>
</tr>
<tr>
<td>IW1</td>
<td>.1674</td>
<td>.0126</td>
<td>.6018</td>
<td><strong>Dependence:</strong> Learn to cope with problems by self. (Scoring was reversed)</td>
</tr>
<tr>
<td>IW13</td>
<td>-.3704</td>
<td>.0469</td>
<td>.3111</td>
<td><strong>Dependence:</strong> Be willing to rely on other for help.</td>
</tr>
<tr>
<td>GB8</td>
<td>.0216</td>
<td>.5383</td>
<td>.0073</td>
<td><strong>Dependence:</strong> Parent should make life easy for children.</td>
</tr>
<tr>
<td>GB9</td>
<td>-.0697</td>
<td>-.0853</td>
<td>.2437</td>
<td><strong>Dependence:</strong> It's nice when children ask parents for help.</td>
</tr>
</tbody>
</table>
highly. The interpretation of this factor was not meaningful. Parents did not want their children to just enjoy being with others, but they also did not want their children to enjoy playing alone.

Two affiliation items and one of the dependence items loaded on the second factor. The dependence item "parents should make life easy for children" may be interpreted as parents making less demands on children, which is different from encouraging children to be dependent on parents. It could be that parents who agreed with this item believed children should be able to enjoy childhood without having lots of responsibilities within the family. If this was the case, then agreement with this item would be consistent with believing that frequent contact with peers is important and with wanting children to enjoy being with others. This factor can be interpreted as an encouragement of peer affiliation dimension.

These three items (IW8, GB8, GB23) were submitted to a reliability analysis and a Cronbach alpha of .45 was obtained. This is not as high as one would like, but it was decided to use the sum of these items as the measure of value-affiliation, a construct that is of theoretical importance to this study. The range of scores on this measure was three to fifteen, with the mean for boys at 9.2 (sd = 2.33) and for girls at 9.0 (sd = 2.5). Parents scoring high on this measure would be those who want their children to enjoy being with others, to have frequent social contact with peers, and to have few responsibilities, i.e., plenty of time for playing. This measure does not represent active encouragement of affiliation, but rather belief that peer relationships are important. The meaning of this
measure, since it is not straight-forward, will be discussed in more
depth later.

The third factor clearly represented a dependence-independence
dimension, with three of the dependence items loading positively.
These items were tested for reliability and the obtained Cronbach
alpha was .31. It was decided to drop the idea of having a
value-dependence measure, since this is not crucial to the study.

Control

Three items from the General Beliefs List (GB5, GB6, GB17) were
designed to assess parental attitudes toward control versus
permissiveness. There were also two items (GB13 and GB15) to
differentiate between rigid control and democratic control (refer to
Appendix B). A factor analysis was attempted on these five items,
but no solution was achieved, probably because two of the items had
poor distributions and the other three items were uncorrelated with
each other. In order to obtain some measure of rigid control versus
democratic control versus permissiveness, parents were categorized
according to their responses to two items (GB13 and GB17). A score
of +2 was assigned to parents who believed that strict rules were
necessary but who also felt that children should not be made to do
something if they had plausible reasons for not wanting to do it.
This represents democratic control. Parents who believed in strict
rules and in insisting that children do what they are told even when
they have plausible excuses, received a score of -2. This represents
rigid control. All parents who did not fall into one of these
categories were assigned 0s, which indicates permissiveness. The median control score for parents of boys was .33 and for girls 1.67. There was a strong tendency for parents in this sample to fall into the democratic category, especially parents of girls.

**Behavioral self report indices**

The Everyday Life Situations and Reactions List provided indices of parental tendencies to respond in certain ways to children's positive and negative behaviors. There were 18 child action items and parents filled in their most likely and second most likely reactions from the list. Since it was the parent reactions and not the child action items that were of interest, scores were arrived at by counting the number of times each of the 24 reactions was chosen throughout the entire pool of child action items. Separate scores were obtained for the number of times a reaction was listed as first choice and for the number of times it was second choice, resulting in 48 frequency scores (two scores for each of the 24 reactions). The sum of these scores had to equal 36 if parents filled in two responses for each of the 18 child action items. Obviously, parents had scores of zero on many of the reactions, i.e., those that were not used.

The choices parents made were always relative to the other possible choices. One can see that these reaction scores are not independent from each other in the statistical sense. The twelve positive reactions "competed" with each other as possible responses to positive child actions, and the twelve negative reactions "competed" with each other as possible responses to the negative child
actions. The interdependency lies within the positive and negative reactions, but not between them. The factor analytic approach to exploring the relationships between these parent reactions (to reduce the information) was not feasible due to this built in dependency of the data.

The individual reaction scores were combined, based on similar meaning, to obtain seven more general response indices. These indices were weighted sums; the first choice reaction scores were multiplied by two and the second choice reaction scores were given single weight. Please refer to Appendix B for the complete listing of the twelve reactions to positive child actions and the twelve reactions to negative child actions, as the construction of each of the response indices is described. The warmth measure was constructed from reactions three and five; expression of physical or verbal affection. An induction index (Induct-P) was composed from positive reactions seven and nine. A second induction index (Induct-N) included negative reactions 14 and 19. Induction refers to pointing out the positive or negative effects which a child's action has on others. Reactions two and eleven constituted general positive reinforcement (Gen-Rf), saying "I'm proud of you" or "that's good." General negative reinforcement (Gen-Neg) included reactions 17, 23, and 24; pointing to general rules and standards which should be upheld, or saying "that's bad." A power assertion measure (Power) was composed of reactions 18 and 20; sending child to room or taking away toys or privileges. Reactions four and six made up the final index, which concerned positive evaluations of child's actions in terms of obeying
parental values and standards (Values). Nine reactions remained uncombined, either because they didn't fit into one of the above categories of interest, or because their frequency of occurrence was low, as in the cases of numbers 1, 10, and 13.

**Composite measures of authoritative parenting**

The "Everyday Life Situations" reaction scores for Warmth, Induct-P, Induct-N, and reaction #21 (non-person oriented induction) were each standardized and summed to obtain a measure of authoritative tendencies (AT). Warmth has been previously discussed as an important element of authoritative parenting. Induction is considered to be consistent with this parenting style because it involves giving reasons for demands or expectations in terms of how actions affect others. An additional element crucial to authoritative parenting is democratic control. To achieve a composite measure of authoritative parenting (called ATC), the control score (+2, 0, -2) was added to the AT score. The range of scores on the ATC measure was -5.65 to 6.52 for parents of boys, and -4.4 to 4.31 for parents of girls. The respective means were .41 (sd = 3.01) and .96 (sd = 2.25).

**Composite measures of authoritarian parenting**

The reaction scores for Gen-Rf, Values, Gen-Neg, and Power were standardized and summed to obtain a measure called AR, which is representative of authoritarian tendencies. The major elements involved in this parenting style are low warmth and restrictive control. Given the nature of these reaction indices, high scores on Gen-Rf and Values would indicate low warmth. Power assertion is
a form of restrictive control. Expecting children to obey set rules without giving reasons for these rules (Gen-Neg) is also considered to be consistent with the authoritarian style. A composite measure of authoritarian parenting (called ARC) was obtained by subtracting the control scores from AR. (This is the same as adding strict control). The range of scores on ARC was -6.27 to 7.28 for boys, with a mean of -0.41 (sd = 3.1). Girls' parents ranged from -4.67 to 5.8, with a mean of -1.02 (sd = 2.53).

Limitations of composite measures

The composite measures are not ideal for interpretation purposes because they are sum scores rather than indices of patterns. A high composite score does not necessarily mean that a parent was high on each of the individual elements. It is unlikely, however, that a high score would result without a number of the individual components being present to a fairly high degree. Interpretations can be made only in terms of general tendencies. It was necessary to construct the composite measures so that the totality of parental practices could be examined in relation to children's motivation. Any one parental practice considered "out of context", apart from all the others, would not be expected to relate strongly to characteristics of the children. It would have been most informative to compare children's motive scores between parent groups, where each group was representative of a different pattern of high and low scores on the separate indices. This was not possible to do given the necessity of analyzing boys and girls separately, which resulted in small sample sizes.
Analyses of Child Measures

Intercorrelations among the child measures were obtained for the entire sample and for boy and girls separately. These Spearman correlation coefficients are presented in Table 2 (all subjects), Table 3 (boys), and Table 4 (girls). The pattern of relationships often differed for boys and girls, so they will be examined separately throughout. Overall correlations will only be reported when relationships for girls and boys were nonsignificant but in the same direction, leading to significant correlations when combined.

Interrelationships among motive measures

The three motive measures were uncorrelated for girls. The desired outcomes and undesired outcomes measures were significantly negatively correlated for boys ($\rho = -.36, p < .05$). Boys who more often chose affiliation as desirable felt that affiliation rejection was less undesirable than the other unsuccessful goal outcomes; or, boys who felt that rejection was the worst thing that could happen chose successful affiliation as less desirable than the other goals. There was a marginal positive correlation between the affiliation story and the undesired outcomes measure for children as a whole ($\rho = .22, p < .10$), but the correlations were not significant within each sex.

The desired outcomes measure (obtained in the first interview) was not related to the ranking of the same pictures during the second interview. A strong relationship could have indicated stability of the desired outcomes over time. However, the lack of association
**TABLE 2**

Spearman Correlations Between Child Measures for all Subjects

<table>
<thead>
<tr>
<th></th>
<th>B1</th>
<th>B2</th>
<th>RP1</th>
<th>RP2</th>
<th>RP3</th>
<th>Aff</th>
<th>UO</th>
<th>DO</th>
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</thead>
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<tr>
<td>Stranger Behavior</td>
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<td>.29*</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>.13</td>
<td>.35**</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>.13</td>
<td>.24*</td>
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<td></td>
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<td>-.03</td>
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<td></td>
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<td>-.15</td>
<td>.14</td>
<td>.22+</td>
<td></td>
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<td>-.05</td>
<td>.11</td>
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<td>.02</td>
<td>-.24*</td>
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<td>-.02</td>
<td>.02</td>
<td>-.16</td>
<td>.05</td>
<td>.02</td>
<td>.15</td>
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</table>

All probability levels are two-tailed.

*+p < .10*
*•p < .05*
**•p < .01**
## TABLE 3
Spearman Correlations Between Child Measures for Boys

<table>
<thead>
<tr>
<th></th>
<th>B1</th>
<th>B2</th>
<th>RP1</th>
<th>RP2</th>
<th>RP3</th>
<th>Aff</th>
<th>UO</th>
<th>DO</th>
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</thead>
<tbody>
<tr>
<td>Friend Behavior</td>
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<td>.45**</td>
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<td>.07</td>
<td>.37*</td>
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<td>-.06</td>
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<td>-.03</td>
<td>.07</td>
<td>-.08</td>
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<td>-.15</td>
<td>.14</td>
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</table>

All probability levels are two-tailed.

+ $p < .10$

* $p < .05$

** $p < .01$
TABLE 4

Spearman Correlations Between Child Measures for Girls

<table>
<thead>
<tr>
<th></th>
<th>B1</th>
<th>B2</th>
<th>RP1</th>
<th>RP2</th>
<th>RP3</th>
<th>Aff</th>
<th>U0</th>
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</thead>
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<tr>
<td>Friend Behavior</td>
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<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affiliation Story</td>
<td>-.18</td>
<td>.21</td>
<td>-.12</td>
<td>-.11</td>
<td>.21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undesired Outcomes</td>
<td>-.36*</td>
<td>.20</td>
<td>.24</td>
<td>-.35*</td>
<td>.02</td>
<td>.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Desired Outcomes</td>
<td>-.15</td>
<td>.08</td>
<td>-.02</td>
<td>.23</td>
<td>-.07</td>
<td>.01</td>
<td>-.11</td>
<td></td>
</tr>
<tr>
<td>Rank of D.O.</td>
<td>-.18</td>
<td>.12</td>
<td>-.01</td>
<td>.00</td>
<td>-.16</td>
<td>-.03</td>
<td>.19</td>
<td>.12</td>
</tr>
</tbody>
</table>

All probability levels are two-tailed.

+ p < .10
* p < .05
** p < .01
has no clear interpretation since it could be due to the differing procedures used on the two occasions. The ranking was also uncorrelated with the undesired outcomes. One might expect a carry over effect since the ranking procedure immediately followed administration of the undesired outcomes measure. Apparently these stimulus materials elicited different types of response.

**Stability of behavior ratings**

The behavior ratings for the two play sessions were significantly positively correlated for boys ($\rho = .47, p < .01$), but were unrelated for girls ($\rho = -.10$). Boys' level of affiliativeness was similar whether they were with friends or strangers. Girls' affiliative behavior showed no such consistency; it varied (seemingly randomly) between the two play sessions. This difference between the correlation for boys and the correlation for girls was significant ($z = 3.01, p < .01$). The data offers no real explanation for this difference. It could be that girls were more responsive to situational cues such as other children's behavior or personal characteristics, which resulted in less behavioral consistency.

**Intercorrelations among role plays**

Role play one and two were significantly related for boys ($\rho = .45, p < .01$). Boys' second and third role plays were also positively correlated ($\rho = .37, p < .05$). Girls' role play scores were not significantly correlated with each other ($\rho = .25, \rho = .15, \rho = .11$). This appears similar to the differing relationship between the behavior ratings for boys and girls. Again, it is possible that
girls were more discriminating of various role play situations so their actions varied accordingly.

Correlates of motive measures

The affiliation story was not related to any of the other measures for girls. The correlations between this measure and the two behavior ratings were in opposite directions, but the difference between these two coefficients (-.18 and .21) was not significant. Boys' scores on the affiliation story were also unrelated to behavior. There was a positive correlation between this motive measure and the third role play—the assertiveness measure ($\rho = .42$, $p < .05$). This makes sense because children who are passive or shy would be unlikely to score high on the affiliation story, as it requires an active approach toward others. The other social skill measures were not related to boys' scores on this motive measure. Boys with high motivation were not necessarily skilled at initiating and maintaining interactions, but were more assertive, or possibly aggressive.

The desired outcomes measure showed no significant correlations with any other measure for either sex.

The undesired outcomes measure was significantly negatively correlated with girls' affiliativeness with friends ($\rho = -.36$, $p < .05$), and was numerically positively related to behavior with strangers ($\rho = .20$). It is similar to the pattern exhibited between the affiliation story and the behavior measures, but in this case the difference between the two coefficients was significant ($t = 2.25$, $p < .05$). Girls who chose "having no one to play with" as the worst
thing that could happen interacted less with their friends during the
day session, but they were more affiliative with strangers. One
could speculate that it was important for these girls to have someone
to play with, to be accepted. Possibly their motivation to affiliate
was not aroused when in the play room with already established
acquaintances. They felt secure knowing that friends were nearby,
and exploring the new toys may have taken precedence. With strangers,
they were more outgoing in their attempt to be accepted and liked.
If such speculations are supported by further analyses, it could
imply that the undesired outcomes measure assessed an avoidance
based desire for affiliation.

The undesired outcomes measure was also negatively correlated
with girls' second role play ($\rho = -0.35, p < 0.05$). Girls who felt
that affiliation rejection was the worst were shy about initiating
interaction with the "new kid" in the role play and could not maintain
the interaction when the "kid" did not speak English.

This motive measure was unrelated to either of the behavior
ratings for boys, but was marginally positively correlated with the
third role play ($\rho = 0.31, p < 0.10$). "Assertive" boys did not like
being left out of the "ball game."

Role play measures and behavior

The social skill measures alone showed consistently positive
relationships with behavior. Role play two and three were correlated
with boys' affiliativeness with friends ($\rho = 0.39, \rho = 0.43, p < 0.05$).
Boys who were "assertive" or "aggressive" showed higher levels of
interaction in the Friends play session than those who were "passive" in the role play. The more affiliative boys were also better able to initiate and maintain interaction with the "new kid" in the second role play. None of the role play measures were related to boys' behavior with strangers.

Girls affiliativeness with friends was also positively correlated with their scores on the second role play ($r = .38, p < .05$). The first role play story was positively related to girls' affiliation with strangers ($r = .47, p < .01$).

There did not appear to be any direct correspondence between the situation in the role plays (interacting with a "friend" or a "stranger") and the play session situations. Role play two was related to affiliation with friends for both boys and girls, and the first role play was related to girls' behavior with strangers. The essential elements in these measures were probably the particular "skills" involved, rather than the imaginary settings. Both role plays required the ability to approach another child in a friendly manner and maintain a pleasant level of interaction in the face of "difficulties". One could reasonably expect these skills to be important for interaction with friends and strangers.

**Summary of motive correlates**

The affiliation story and undesired outcomes measures were positively related to boys' assertiveness/aggressiveness as assessed in the third role play story. The undesired outcomes measure was negatively correlated with girls' affiliativeness with friends and
with social skill as assessed in role play two. Generally, the three motive measures were not highly related to affiliative behavior in the play sessions. It was anticipated that motivation might not be expressed in behavior unless appropriate social skills were also present. In order to provide more information concerning the validity of these motive measures, the joint relationship of motivation and social skill to behavior was explored.

**Motive, social skill and behavior**

A number of $2 \times 2 \times 2$ analyses of variance were performed on the behavior ratings, to examine the combined effects of motive and social skill levels, and sex. Role play one and two were combined to serve as the social skill variable in these analyses. Subjects were assigned to high and low groups based on "median" splits of motive scores and the aggregate role play score. The two behavior ratings, as dependent variables, were analyzed separately with each of the motive measures, resulting in six ANOVAs. Post hoc $t$-tests were done whenever a significant interaction effect called for further examination. In addition, Bonferroni controlled contrasts were performed, within each sex, when individual cell means of theoretical interest were noticeably discrepant, but did not result in significant overall $F$'s.

**Affiliation story.** The analysis of behavior with friends is presented in Table 5. Children with high social skill were significantly more affiliative than those with low social skill [$F(1,56) = 4.14$, $p < .05$]. Boys were marginally more affiliative.
**TABLE 5**

ANOVA for Friend Behavior Ratings: Affiliation Story, Role Play, Sex

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Play (RP)</td>
<td>1</td>
<td>3.12</td>
<td>4.14</td>
<td>.047</td>
</tr>
<tr>
<td>Affiliation Story (A)</td>
<td>1</td>
<td>.49</td>
<td>.65</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>1</td>
<td>2.72</td>
<td>3.63</td>
<td>.062</td>
</tr>
<tr>
<td>RP x A</td>
<td>1</td>
<td>.03</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>RP x Sex</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>A x Sex</td>
<td>1</td>
<td>.25</td>
<td>.34</td>
<td></td>
</tr>
<tr>
<td>RP x A x Sex</td>
<td>1</td>
<td>.001</td>
<td>.001</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>56</td>
<td>.75</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: All ANOVAs were calculated using unique sums of squares, due to unequal cell frequencies and variances.
with friends than girls \( F(1,56) = 3.63, p < .10 \). The cell means are shown in Table 6. There were no noticeable differences between the four motive-role play combinations for either sex.

The analysis of behavior with strangers is presented in Table 7. There was a role play by sex interaction \( F(1,63) = 7.12, p < .05 \). The means in Table 8 and \( t \)-tests in Table 9 show that girls with high social skill were more affiliative than those with low skill \( t(63) = 3.05, p < .025 \). There was no such difference between boys at the two social skill levels. The pattern of means for girls followed theoretical expectations. Those with high motivation and high social skill were most affiliative and girls with low scores on both were least affiliative. The difference between these two groups was significant \( t(63) = 3.59, p < .0042 \). The mean behavior for the other two groups fell somewhere in between.

**Desired outcomes.** The analysis of friend behavior is presented in Table 10. Again, the role play main effect was significant \( F(1,58) = 5.33, p < .05 \). This time, the difference between boys' and girls' affiliation was significant \( F(1,58) = 4.58, p < .05 \). The cell means are shown in Table 11. The pattern of means was similar for boys and girls. The differences among cell means were not significant.

The analysis of stranger behavior ratings is presented in Table 12. The role play by sex interaction was present as in the previous analysis of stranger behavior \( F(1,65) = 6.04, p < .05 \). There was also a significant role play by desired outcomes interaction \( F(1,65) = 4.22, p < .05 \). When children had low scores
### TABLE 6

Cell Means and Frequencies (in Parentheses) for Analysis of Friend Behavior: Affiliation Story

<table>
<thead>
<tr>
<th></th>
<th>Low A</th>
<th>High A</th>
<th>Grand Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Girls</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low RP</td>
<td>3.71 (7)</td>
<td>3.44 (9)</td>
<td>3.82</td>
</tr>
<tr>
<td>High RP</td>
<td>4.20 (10)</td>
<td>3.86 (7)</td>
<td></td>
</tr>
<tr>
<td><strong>Boys</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low RP</td>
<td>4.00 (9)</td>
<td>4.00 (6)</td>
<td>4.23</td>
</tr>
<tr>
<td>High RP</td>
<td>4.50 (6)</td>
<td>4.40 (10)</td>
<td></td>
</tr>
<tr>
<td><strong>Overall Role Play</strong></td>
<td>3.77</td>
<td>4.24</td>
<td></td>
</tr>
</tbody>
</table>
TABLE 7
ANOVA for Stranger Behavior: Affiliation Story, Role Play, Sex

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Play (RP)</td>
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<td>3.53</td>
<td>.065</td>
</tr>
<tr>
<td>Affiliation Story (A)</td>
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<td>1.65</td>
<td>1.99</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
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<td>.01</td>
<td>.02</td>
<td></td>
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<td>RP x A</td>
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<td>.46</td>
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</tr>
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<td>7.12</td>
<td>.01</td>
</tr>
<tr>
<td>A x Sex</td>
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<td>1.73</td>
<td>2.09</td>
<td></td>
</tr>
<tr>
<td>RP x A x Sex</td>
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<td>.01</td>
<td>.01</td>
<td></td>
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<tr>
<td>Error</td>
<td>63</td>
<td>.82</td>
<td></td>
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</tr>
</tbody>
</table>
# TABLE 8

Cell Means and Frequencies (in Parentheses) for Analysis of Stranger Behavior: Affiliation Story

<table>
<thead>
<tr>
<th></th>
<th>Girls</th>
<th>Boys</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low RP</td>
<td>High RP</td>
</tr>
<tr>
<td>Low A</td>
<td>3.14 (7)</td>
<td>4.27 (11)</td>
</tr>
<tr>
<td>High A</td>
<td>3.90 (10)</td>
<td>4.78 (9)</td>
</tr>
<tr>
<td>Role Play Marginals</td>
<td>3.59</td>
<td>4.50</td>
</tr>
<tr>
<td>Low A</td>
<td>4.00 (10)</td>
<td>4.00 (7)</td>
</tr>
<tr>
<td>High A</td>
<td>4.17 (6)</td>
<td>3.82 (11)</td>
</tr>
<tr>
<td>Role Play Marginals</td>
<td>4.06</td>
<td>3.89</td>
</tr>
<tr>
<td>Comparison</td>
<td>Mean Diff</td>
<td>s.d.</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------</td>
<td>-------</td>
</tr>
<tr>
<td>Boys: High vs. Low RP</td>
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<td>.3112</td>
</tr>
<tr>
<td>Girls: High vs. Low RP</td>
<td>.91</td>
<td>.2987</td>
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<tr>
<td>Girls: High/High vs. Low/Low</td>
<td>1.64</td>
<td>.4563</td>
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<td>Girls: High/High vs. High A/Low RP</td>
<td>.88</td>
<td>.4161</td>
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<tr>
<td>Girls: Low A/High RP vs. Low/Low</td>
<td>1.13</td>
<td>.4378</td>
</tr>
</tbody>
</table>

*Needed for significance with two contrasts (family-wise error rate = .05, two-tailed).

**Needed for significance with twelve contrasts (family-wise error rate = .05, two-tailed).
### TABLE 10

ANOVA for Friend Behavior: Desired Outcomes, Role Play, Sex

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Play (RP)</td>
<td>1</td>
<td>3.97</td>
<td>5.33</td>
<td>.025</td>
</tr>
<tr>
<td>Desired Outcomes (DO)</td>
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<td>1.83</td>
<td>2.46</td>
<td>.122</td>
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<tr>
<td>Sex</td>
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<td>3.42</td>
<td>4.58</td>
<td>.037</td>
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<td>.03</td>
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<td></td>
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<tr>
<td>RP x Sex</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>DO x Sex</td>
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<td>.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RP x DO x Sex</td>
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<td>.01</td>
<td></td>
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</tr>
<tr>
<td>Error</td>
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<td>.75</td>
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</tr>
</tbody>
</table>
TABLE 11

Cell Means and Frequencies (in Parentheses) for Analysis of Friend Behavior: Desired Outcomes

<table>
<thead>
<tr>
<th></th>
<th>Low RP</th>
<th></th>
<th>High RP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Girls</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low DO</td>
<td>3.63 (8)</td>
<td></td>
<td>4.33 (6)</td>
</tr>
<tr>
<td>High DO</td>
<td>3.33 (9)</td>
<td></td>
<td>3.91 (11)</td>
</tr>
<tr>
<td>Grand Mean</td>
<td></td>
<td>3.76</td>
<td></td>
</tr>
<tr>
<td><strong>Boys</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low DO</td>
<td>4.25 (4)</td>
<td></td>
<td>4.67 (6)</td>
</tr>
<tr>
<td>High DO</td>
<td>3.92 (11)</td>
<td></td>
<td>4.30 (10)</td>
</tr>
<tr>
<td>Grand Mean</td>
<td></td>
<td>4.22</td>
<td></td>
</tr>
<tr>
<td>Overall Role Play</td>
<td>3.73</td>
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<td>4.24</td>
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</table>
TABLE 12

ANOVA for Stranger Behavior:
Desired Outcomes, Role Play, Sex

<table>
<thead>
<tr>
<th>Source</th>
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<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
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<td>Role Play (RP)</td>
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<td>1.74</td>
<td></td>
</tr>
<tr>
<td>Desired Outcomes (DO)</td>
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<td>.02</td>
<td>.03</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>1</td>
<td>.16</td>
<td>.20</td>
<td></td>
</tr>
<tr>
<td>RP x DO</td>
<td>1</td>
<td>3.43</td>
<td>4.22</td>
<td>.044</td>
</tr>
<tr>
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<td>6.04</td>
<td>.017</td>
</tr>
<tr>
<td>DO x Sex</td>
<td>1</td>
<td>.63</td>
<td>.78</td>
<td></td>
</tr>
<tr>
<td>RP x DO x Sex</td>
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<td>.06</td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>65</td>
<td>.81</td>
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<td></td>
</tr>
</tbody>
</table>
on the desired outcomes measure, their level of social skill made no difference in affiliative behavior. Children with high motivation were significantly more affiliative with strangers when they had good social skills [$t(65) = 2.74, p < .025]$. The means in Table 13 indicate that this effect was mostly due to girls. The difference between the high-high group and the high motive-low skill group was significant for girls [$t(65) = 3.48, p < .0042]$, but was not for boys. Refer to Table 14 for the $t$-test results. There were no major differences between the four groups of boys. This is consistent with the lack of correlations between their stranger session behavior ratings and all other measures.

Undesired outcomes. This ANOVA of behavior with friends is presented in Table 15. As with the other Friend analyses, high social skill was associated with greater affiliation [$F(1,56) = 7.04, p < .01]$. The interaction between undesired outcomes and sex was also significant [$F(1,56) = 6.10, p < .05]$. Girls were more affiliative when they scored low on the motive measure. This difference between low motivation girls ($\bar{X} = 4.27$) and high motivation girls ($\bar{X} = 3.59$) was not quite significant ($t = 2.25$). The cell means and $t$-tests are shown in Tables 16 and 17. The difference between low and high-motivation boys was in the opposite direction from that of girls. Those in the high UO group ($\bar{X} = 4.3$) were slightly more affiliative than those with low motivation level ($\bar{X} = 4.09$). These results simply support what was seen in the correlations. The pattern of means for girls was similar to the other motive measure with friends analyses. This time there was a marginally significant difference between the
\begin{table}
\centering
\caption{Cell Means and Frequencies (in Parentheses) for Analysis of Stranger Behavior: Desired Outcomes}
\begin{tabular}{lll}
\hline
 & \textbf{Low RP} & \textbf{High RP} \\
\hline
\textbf{Girls} & & \\
Low DO & 3.89 (9) & 4.33 (6) \\
High DO & 3.33 (9) & 4.57 (14) \\
Role Play Marginals & 3.61 & 4.50 \\
\hline
\textbf{Boys} & & \\
Low DO & 4.20 (5) & 3.43 (7) \\
High DO & 3.92 (12) & 4.18 (11) \\
Role Play Marginals & 4.00 & 3.88 \\
\hline
\textbf{All Subjects} & & \\
Low DO & 4.00 (14) & 3.85 (13) \\
High DO & 3.67 (21) & 4.40 (25) \\
\hline
\end{tabular}
\end{table}
TABLE 14
Bonferroni t-tests for Analysis of Stranger Behavior:
Desired Outcomes

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Mean Diff</th>
<th>s.d.</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low DO: High vs. Low RP</td>
<td>-.15</td>
<td>.3466</td>
<td>-.43</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>High DO: High vs. Low RP</td>
<td>.73</td>
<td>.2644</td>
<td>2.74</td>
<td>65</td>
<td>&lt; .025*</td>
</tr>
<tr>
<td>Girls: High/High vs. Low/Low</td>
<td>.68</td>
<td>.3844</td>
<td>1.77</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>High/High vs. Hi DO/Low RP</td>
<td>1.34</td>
<td>.3846</td>
<td>3.48</td>
<td>65</td>
<td>&lt; .0042**</td>
</tr>
<tr>
<td>Lo DO/High RP vs. High DO/Low RP</td>
<td>1.00</td>
<td>.4743</td>
<td>2.11</td>
<td>65</td>
<td></td>
</tr>
</tbody>
</table>

*Needed for significance with two contrasts (family-wise error rate = .05, two tailed).

**Needed for significance with twelve contrasts (family-wise error rate = .05, two tailed).
TABLE 15
ANOVA for Friend Behavior:
Undesired Outcomes, Role Play, Sex

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Play (RP)</td>
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<td>4.72</td>
<td>7.04</td>
<td>.01</td>
</tr>
<tr>
<td>Undesired Outcomes (UO)</td>
<td>1</td>
<td>.52</td>
<td>.77</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>1</td>
<td>.59</td>
<td>.87</td>
<td></td>
</tr>
<tr>
<td>RP x UO</td>
<td>1</td>
<td>.47</td>
<td>.69</td>
<td></td>
</tr>
<tr>
<td>RP x Sex</td>
<td>1</td>
<td>.003</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>UO x Sex</td>
<td>1</td>
<td>4.09</td>
<td>6.10</td>
<td>.017</td>
</tr>
<tr>
<td>RP x UO x Sex</td>
<td>1</td>
<td>.31</td>
<td>.47</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>56</td>
<td>.67</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE 16

Cell Means and Cell Frequencies (in parentheses) for Analysis of Friend Behavior: Undesired Outcomes

<table>
<thead>
<tr>
<th></th>
<th>Girls</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low RP</td>
<td>High RP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low UO</td>
<td>4.00 (6)</td>
<td>4.60 (5)</td>
<td>4.27</td>
<td></td>
</tr>
<tr>
<td>High UO</td>
<td>3.30 (10)</td>
<td>3.83 (12)</td>
<td>3.59</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Boys</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low RP</td>
<td>High RP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low UO</td>
<td>3.50 (4)</td>
<td>4.43 (7)</td>
<td>4.09</td>
<td></td>
</tr>
<tr>
<td>High UO</td>
<td>4.18 (11)</td>
<td>4.44 (9)</td>
<td>4.30</td>
<td></td>
</tr>
</tbody>
</table>
TABLE 17

Bonferroni t-tests for Analysis of Friend Behavior: Undesired Outcomes

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Mean Diff</th>
<th>s.d.</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys: High vs. Low UO</td>
<td>.21</td>
<td>.3073</td>
<td>.68</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>Girls: High vs. Low UO</td>
<td>-.68</td>
<td>.3024</td>
<td>-2.25</td>
<td>56</td>
<td>&lt; .05*</td>
</tr>
<tr>
<td>Boys: High/High vs. Low/Low</td>
<td>.94</td>
<td>.4918</td>
<td>1.91</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>Girls: Low UO/High RP vs. High UO/Low RP</td>
<td>1.30</td>
<td>.4483</td>
<td>2.90</td>
<td>56</td>
<td>&lt; .0083**</td>
</tr>
</tbody>
</table>

*Needed for significance with two contrasts (family-wise error rate = .10, two tailed).

**Needed for significance with twelve contrasts (family-wise error rate = .10, two tailed).
low motive-high social skill group and the high motive-low skill group ($t = 2.90$).

The ANOVA of behavior with strangers is presented in Table 18. The social skill main effect was significant this time [$F(1,63 = 4.28$, $p < .05$] and the social skill by sex interaction only reached marginal significance ($p = .07$). The same pattern of results emerged as was seen in the previous stranger analyses. These cell means are shown in Table 19. Girls were more affiliative with high social skills while there was no difference for boys. There were no significant differences between the four motive-role play combinations for boys. Girls were significantly more affiliative with strangers when they had high undesired outcomes scores and high social skill, as opposed to low scores on both [$t(63) = 3.11$, $p < .0042$]. The t-test results are in Table 20.

Summary: boys. Social skill was the most important factor in affiliation with friends, but did not enter into affiliation with strangers. Boys generally had higher levels of affiliative behavior than girls in the friends play session. There were no significant differences between any of the motive-role play combinations within each analysis. Under the assumption that affiliation motivation would be expressed in the play sessions, there was no indication from these results that the motive measures assessed boys' affiliative goals. It is possible, however, that motivation did not matter in these particular play situations, or that the behavioral measures were not sensitive enough.
# TABLE 18

ANOVA for Stranger Behavior: Undesired Outcomes, Role Play, Sex

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Play (RP)</td>
<td>1</td>
<td>3.36</td>
<td>4.28</td>
<td>.043</td>
</tr>
<tr>
<td>Undesired Outcomes (UO)</td>
<td>1</td>
<td>.43</td>
<td>.54</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>1</td>
<td>.001</td>
<td>.001</td>
<td></td>
</tr>
<tr>
<td>RP x UO</td>
<td>1</td>
<td>2.13</td>
<td>2.71</td>
<td></td>
</tr>
<tr>
<td>RP x Sex</td>
<td>1</td>
<td>2.66</td>
<td>3.39</td>
<td>.07</td>
</tr>
<tr>
<td>UO x Sex</td>
<td>1</td>
<td>1.14</td>
<td>1.45</td>
<td></td>
</tr>
<tr>
<td>RP x UO x Sex</td>
<td>1</td>
<td>2.63</td>
<td>3.35</td>
<td>.072</td>
</tr>
<tr>
<td>Error</td>
<td>63</td>
<td>.78</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## TABLE 19

Cell Means and Cell Frequencies (in Parentheses) for Analysis of Stranger Behavior: Undesired Outcomes

<table>
<thead>
<tr>
<th></th>
<th>Low RP</th>
<th></th>
<th>High RP</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Girls</strong></td>
<td></td>
<td><strong>Boys</strong></td>
</tr>
<tr>
<td>Low UO</td>
<td>3.33 (6)</td>
<td>Low RP</td>
<td>4.17 (6)</td>
<td></td>
</tr>
<tr>
<td>High UO</td>
<td>3.73 (11)</td>
<td></td>
<td>4.64 (14)</td>
<td></td>
</tr>
<tr>
<td>Role Play Marginals</td>
<td>3.59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Boys</strong></td>
<td></td>
<td><strong>Girls</strong></td>
</tr>
<tr>
<td>Low UO</td>
<td>3.60 (5)</td>
<td>Low RP</td>
<td></td>
<td>3.82</td>
</tr>
<tr>
<td>High UO</td>
<td>4.27 (11)</td>
<td></td>
<td>4.43 (7)</td>
<td></td>
</tr>
<tr>
<td>Role Play Marginals</td>
<td>4.06</td>
<td></td>
<td>3.55 (11)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Overall Role Play</td>
<td>3.82</td>
<td>Overall Role Play</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.21</td>
</tr>
<tr>
<td>Comparison</td>
<td>Mean Diff</td>
<td>s.d.</td>
<td>t</td>
<td>df</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------</td>
<td>------</td>
<td>------</td>
<td>----</td>
</tr>
<tr>
<td>Girls: High/High vs. Low/Low</td>
<td>1.31</td>
<td>.4309</td>
<td>3.11</td>
<td>63</td>
</tr>
<tr>
<td>Girls: High/High vs. High UO/Low RP</td>
<td>.91</td>
<td>.3558</td>
<td>2.56</td>
<td>63</td>
</tr>
<tr>
<td>Boys: High/High vs. Low UO/High RP</td>
<td>-.88</td>
<td>.4270</td>
<td>-2.06</td>
<td>63</td>
</tr>
</tbody>
</table>

*Needed for significance with twelve contrasts (family-wise error rate = .05, two tailed).
Summary: Girls with high social skills were more affiliative with both friends and strangers than those with low skills. Girls with high scores on the affiliation story motive measure, combined with good social skills, were more affiliative with strangers than those with low motivation and low skill. This pattern was consistent with theoretical expectations and gives some support for the validity of this motive measure.

Results for the desired outcomes measure and behavior with strangers were consistent with the notion that motivation would not be expressed in behavior if social skills were lacking. Girls with high scores on this motive measure were less affiliative with low skills than with high skills.

Of the three motive measures, only the undesired outcomes related to girls' affiliation with friends. Girls who chose the affiliation rejection picture as less undesirable were more affiliative with friends and somewhat less affiliative with strangers. The same pattern for affiliation with strangers emerged as was seen with the affiliation story motive measure. Girls with high motive and skill scores were more affiliative than those with low scores. This measure seemingly tapped some element of affiliation motivation but the interpretation is not straightforward.

Parental Practices and Motive Measures

It was hypothesized that approach oriented affiliation motivation might develop out of warm, positive relationships with parents. Warmth was unrelated to the motive measures. Tables 21 and 22 show
TABLE 21
Spearman Correlations Among Some Parent and Child Measures: Girls

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>DO</th>
<th>UO</th>
<th>RP2</th>
<th>Val-Aff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warmth</td>
<td>-.09</td>
<td>.17</td>
<td>-.04</td>
<td>.07</td>
<td>.08</td>
</tr>
<tr>
<td>Peer Relations</td>
<td>.05</td>
<td>-.33*</td>
<td>-.29+</td>
<td>.04</td>
<td>-.06</td>
</tr>
<tr>
<td>Value-Affiliation</td>
<td>.08</td>
<td>-.18</td>
<td>.27</td>
<td>-.28+</td>
<td></td>
</tr>
</tbody>
</table>

* $p < .05$  
+ $p < .10$

Probability levels are two-tailed.
TABLE 22

Spearman Correlations Among Some Parent and Child Measures: Boys

<table>
<thead>
<tr>
<th>A</th>
<th>DO</th>
<th>UO</th>
<th>RP2</th>
<th>Val-Aff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warmth</td>
<td>-.01</td>
<td>-.05</td>
<td>.12</td>
<td>.19</td>
</tr>
<tr>
<td>Peer Relations</td>
<td>.02</td>
<td>.21</td>
<td>-.10</td>
<td>-.07</td>
</tr>
<tr>
<td>Value-Affiliation</td>
<td>.04</td>
<td>-.16</td>
<td>.04</td>
<td>-.26</td>
</tr>
</tbody>
</table>

*p < .10

Probability levels are two-tailed.
the correlations between girls' and boys' motive measures and parental warmth and value-affiliation. Another belief was that children's affiliative goals might be related to the value which parents place on affiliation. There were no relationships between children's motive measures and parents' value-affiliation. As expected, single parent indices were not good predictors. Before going on to report the findings for the composite parent measures, a discussion of the meaning of the value-affiliation measure is needed.

Parents' value-affiliation scores were significantly negatively related to children's scores on role play two (r = -.28, p < .05). Parents who encouraged affiliation had children with weak skills for initiating and maintaining behavior with friends. It could be that these children had difficulties with peer relations, and parents were concerned. This concern may have been expressed in more positive responses to the value-affiliation items. It is certainly plausible that parents' responses throughout the questionnaire might be influenced by their knowledge of, and feelings about their children's current state. If they were concerned about their children's peer relations, they probably would feel that having frequent contact with peers and enjoying others' company were especially important for these children. This conception was checked by looking at the correlations between value-affiliation and parents' ratings of their children's relationships with peers. These ratings were on a five point scale with low score indicating problems in relationships with peers and a high rating indicating good relationships with peers. These correlations are also shown in
Tables 21 and 22. For boys only, these two parent measures were marginally negatively correlated ($\rho = -0.29, p < 0.10$). This means that parents who rated their boys as having poor relations with peers felt that affiliation was more important. This is consistent with the notion that high scores on value affiliation may indicate concern about children's affiliative behavior, rather than positive encouragement of affiliation, at least with boys. However, the problem of the chicken and the egg remains; it is not known to what extent parents' value scores were influenced by their perceptions of children's existing characteristics, or to what extent children's characteristics are a product of parents' pre-existing attitudes.

Interestingly, parents' peer relations ratings were also significantly negatively correlated with girls' desired outcome scores ($\rho = -0.33, p < 0.05$), and marginally negatively related to girls' undesired outcomes scores ($\rho = -0.29, p < 0.10$). Girls with high motivation as assessed in these measures were rated by parents as having difficulties in relationships with peers. This suggests that high scores on these motive measures indicate high need for affiliation, rather than approach motivated affiliation. It was previously mentioned that approach motivated affiliators are popular with peers and it seems unlikely that parents would rate their children as having poor relationships if they were popular.

Analysis of composite parent measures and motive measures

It was hypothesized that approach motivated affiliation might be related to authoritative parenting and positive encouragement of
affiliation. Based on past research, it was expected that high need for affiliation (avoidance orientation) would be associated with authoritarian parenting. Correlation coefficients between the parent measures and motive measures were obtained. In addition, parents were split into two groups, high and low value-affiliation, so that this could be examined in conjunction with the other parent practices. Correlations were then obtained between the parent composite scores and children's motive scores, within each value-affiliation group. These correlations are presented in Table 23 (boys) and Table 24 (girls).

Affiliation story. Boys' scores on this measure were marginally positively related to AR overall \((p = .27, p < .10)\). However, in the low value affiliation group, the motive scores were positively correlated with AT and ATC \((p = .48, p < .10; p = .57, p < .05)\). When parents had high value-affiliation, the motive measure was again positively related to AR \((p = .52, p < .05)\) and to ARC \((p = .53, p < .01)\). The pattern of correlations changed completely from the low to the high value group.

These results are somewhat inconsistent with expectations, but can be interpreted meaningfully if the original conception of the value-affiliation measure, as positive encouragement of affiliation, is revised in light of the previous finding. Parents with high value-affiliation may have been concerned about their children's social behavior. In combination with authoritarian parenting, such concern might be expressed through "anxiously" encouraging children to develop pleasant relations with peers. Under these conditions,
### TABLE 23

Spearman Correlations Between Boys Motive Measures and Composite Parent Measures

<table>
<thead>
<tr>
<th>Overall</th>
<th>AT</th>
<th>AR</th>
<th>ATC</th>
<th>ARC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliation Story</td>
<td>.01</td>
<td>.27*</td>
<td>-.01</td>
<td>.21</td>
</tr>
<tr>
<td>Desired Outcome</td>
<td>.15</td>
<td>-.09</td>
<td>.15</td>
<td>-.13</td>
</tr>
<tr>
<td>Undesired Outcome</td>
<td>.21</td>
<td>-.38*</td>
<td>.25</td>
<td>-.34*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low Value-Affiliation</th>
<th>AT</th>
<th>AR</th>
<th>ATC</th>
<th>ARC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliation Story</td>
<td>.48*</td>
<td>-.13</td>
<td>.57*</td>
<td>-.25</td>
</tr>
<tr>
<td>Desired Outcome</td>
<td>.36</td>
<td>-.21</td>
<td>.36</td>
<td>-.10</td>
</tr>
<tr>
<td>Undesired Outcome</td>
<td>.46*</td>
<td>-.73**</td>
<td>.55*</td>
<td>-.73**</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High Value-Affiliation</th>
<th>AT</th>
<th>AR</th>
<th>ATC</th>
<th>ARC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliation Story</td>
<td>-.29</td>
<td>.52*</td>
<td>-.38*</td>
<td>.53**</td>
</tr>
<tr>
<td>Desired Outcome</td>
<td>-.04</td>
<td>-.04</td>
<td>.00</td>
<td>-.10</td>
</tr>
<tr>
<td>Undesired Outcome</td>
<td>.06</td>
<td>-.22</td>
<td>.08</td>
<td>-.15</td>
</tr>
</tbody>
</table>

$^*_{p < .10}$  
$^*_{p < .05}$  
$^{**}_{p < .01}$

Probability levels are two-tailed.
TABLE 24

Spearman Correlations Between Girls Motive Measures and Composite Parent Measures

<table>
<thead>
<tr>
<th>Overall</th>
<th>AT</th>
<th>AR</th>
<th>ATC</th>
<th>ARC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliation Story</td>
<td>-.07</td>
<td>-.17</td>
<td>-.21</td>
<td>-.09</td>
</tr>
<tr>
<td>Desired Outcome</td>
<td>-.11</td>
<td>.11</td>
<td>-.10</td>
<td>.07</td>
</tr>
<tr>
<td>Undesired Outcome</td>
<td>-.15</td>
<td>.01</td>
<td>-.31&lt;sup&gt;+&lt;/sup&gt;</td>
<td>.15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low Value-Affiliation</th>
<th>AT</th>
<th>AR</th>
<th>ATC</th>
<th>ARC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliation Story</td>
<td>-.17</td>
<td>-.27</td>
<td>-.47</td>
<td>.08</td>
</tr>
<tr>
<td>Desired Outcome</td>
<td>.03</td>
<td>-.30</td>
<td>-.15</td>
<td>-.24</td>
</tr>
<tr>
<td>Undesired Outcome</td>
<td>-.18</td>
<td>-.30</td>
<td>-.54&lt;sup&gt;+&lt;/sup&gt;</td>
<td>.18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High Value-Affiliation</th>
<th>AT</th>
<th>AR</th>
<th>ATC</th>
<th>ARC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliation</td>
<td>-.07</td>
<td>-.19</td>
<td>-.13</td>
<td>-.19</td>
</tr>
<tr>
<td>Desired Outcome</td>
<td>-.08</td>
<td>.33</td>
<td>-.12</td>
<td>.29</td>
</tr>
<tr>
<td>Undesired Outcome</td>
<td>-.19</td>
<td>.19</td>
<td>-.21</td>
<td>.12</td>
</tr>
</tbody>
</table>

<sup>+</sup> <i>p < .10</i>
<sup>★p < .05</sup>
<sup>★★p < .01</sup>

Probability levels are two-tailed.
high motivation in children may reflect need based affiliative concerns. The relationship between motive scores and authoritative parenting in the low value group is understandable if low value-affiliation is conceived as lack of concern with affiliation, presumably because the children have good relations with peers. Negative responses to the value-affiliation items by authoritative parents may reflect encouragement of independence rather than discouragement of affiliation. They did not want children to "enjoy others' company, just for the sake of being with others." This last clause may have been interpreted as a need for peer companionship. It is possible then, that high affiliation story scores in this group of children are indicative of approach tendencies. These findings suggest that the affiliation story motive measure may be impure. Boys with strong motivation to affiliate, regardless of the basis for this motivation (approach or avoidance), played with the other "kids" in the projective doll story.

The affiliation story was uncorrelated with the parent measures for girls, in every analysis.

Desired outcomes. This motive measure was not significantly related to any of the parent measures for boys or girls.

Undesired outcomes. In the overall analysis with boys, undesired outcomes scores were negatively correlated with AR and ARC ($\rho = -.38$, $\rho = -.34$, $p < .05$). Boys of strict authoritarian parents had low affiliative goals. In the low value-affiliation group, the negative correlation with AR and ARC was stronger ($\rho = -.73$, $p < .01$), and there was also a significant positive relationship with AT and ATC
(\(\rho = .48, p < .10; \rho = .55, p < .05\)). The motive measure showed no significant relationships to parenting styles in the high value-affiliation group.

Boys who scored high on undesired outcomes had authoritative parents who were unconcerned with affiliation, who encouraged independence from peers. As with the affiliation story, it seems likely that these boys had positive approach motivation. They chose having no one to play with as undesirable because they really enjoyed playing with others. Boys with more authoritarian parents who were not concerned with affiliation scored lower on the motive measure. These boys may have been truly unaffiliative, more concerned with other goals.

Girls' undesired outcome scores were marginally negatively correlated with ATC overall (\(\rho = - .31, p < .10\)). Authoritative parents had girls with less affiliative concerns. The marginal negative correlation with ATC was also present in the low value-affiliation group (\(\rho = - .54, p < .10\)). This is the reverse of the findings for boys, except with girls there was no positive relationship with authoritarian parenting. This makes it difficult to assess what high motive scores mean, because low authoritative tendencies were apparently not equivalent to high authoritarian tendencies, in these analyses. It is possible that the parents of girls with high undesired outcomes scores were permissive. In fact, this notion is supported by a significant negative correlation between girls' motive scores and parents' belief in strict control (General Beliefs item #17) (\(\rho = - .32, p < .05\)). The interpretation of this
motive measure will be returned to in the next chapter, where all pertinent findings will be reviewed.
Boys' motive measures

There is no direct evidence that any of the motive measures assessed affiliative tendencies or preferences in boys because there were no relationships with affiliative behavior in the play sessions. Consideration of social skill level did nothing to modify this lack of motive-behavior relationship. There are several possible interpretations of this absence of correspondence between motive scores and affiliative behavior. The behavior ratings may have been unreliable or insensitive to individual differences, motivation might not have been expressed differentially in the play sessions, or the motive measures may not have been valid assessments of boys' affiliative goals.

One would expect any unreliability in the behavior ratings to show up similarly in their relationships to the other measures. Boys' Friend ratings and both ratings for girls were related to social skill. Boys' Stranger ratings were unrelated to any other measure, but there is no reason to believe that one particular set of ratings would be unreliable when the others appear to be alright.

The level of interaction was quite high for boys in the Friend sessions. This "ceiling effect" may have obscured detection of motivational differences in this play session. However, social skill
differences were evident and a ceiling effect should wipe out all individual differences. There may have been something about the play session ratings which only selected against detection of affiliation motivation.

The extent to which children interacted in the play sessions was probably influenced by factors other than motivation, factors not controlled or measured in this study. Certainly one important element would be the behavior and characteristics of the other children in the play sessions. This issue and other limitations of the behavioral measures, in terms of both setting and meaning of the ratings, will be considered in a later discussion.

Two of the boys' motive measures were associated with parental practices, which suggests that they did assess individual differences of some sort. If it is assumed that the motive scores reflect affiliative goals as intended, then the pattern of relationships with parent measures may be interpreted as indicative of affiliative orientation (approach or avoidance).

The affiliation story may have tapped both aspects of affiliation motivation. Boys in the high value-affiliation group who expressed affiliative preferences in the projective story may have been need affiliates, as suggested by the positive relationship with authoritarian parenting. Past research with the TAT need for affiliation measure indicated an association with strictness, pushiness, and low warmth in parents (Shipley, 1958; Berens, 1976). Parents in the high value-affiliation group tended to rate their boys as having poorer relationships with peers. Authoritarian parents who
may be overly concerned that their children get along well with others may instill in children the belief that they are "no good" if they aren't liked and accepted by peers. These children would be motivated by fear of rejection.

Boys' parents with low value-affiliation were probably not overly concerned with affiliation, presumably because they felt that their children had satisfactory relations with peers. They may have encouraged their children to act independently from others, but probably did not discourage social interaction. Boys of authoritative parents in the low value-affiliation group showed more affiliative tendencies in the doll story. In the Baumrind study (1967), the group of children who had authoritative parents were described as having friendlier peer relations than the other children. If our composite measure is comparable to the Baumrind authoritative pattern, then it can be speculated that the boys in the low value-affiliation group who scored high on the motive measure were approach motivated affiliators. They did not need others, but simply enjoyed playing with friends. These interpretations suggest that the affiliation story did measure affiliative concerns, but that it did not differentiate between the two orientations.

The undesired outcomes measure had the same positive relationship with authoritative parenting in the low value-affiliation groups as did the affiliation story. This measure may have also tapped approach motivation in boys.

The desired outcomes measure did not appear to assess anything in boys. There were no correlations with any other measure, except
the negative relationship with undesired outcomes. If boys who scored high on undesired outcomes were approach motivated, they might not have considered joining other kids and being accepted as anything particularly desirable or out of the ordinary. They may have chosen other desired outcome pictures instead. For boys, the desired outcomes story may not have been sufficiently salient to arouse affiliative concerns, or its power may not have been as great as that of the other stories.

**Girls' motive measures**

The affiliation story was apparently not a strong measure for girls. There were no correlates with parent measures or behavior. The only slight indication that this measure may have assessed motivation was that the high motive girls with good social skills were significantly more affiliative with strangers than the girls with low motive scores and low social skill. The motive measure may have added something to the social skill-behavior relationship: the difference between the low motive-high skill group and the low-low group was not as large.

The desired outcomes measure also had few correlated for girls, but the limited findings were enough to suggest that this measure may have tapped need for affiliation. Girls with high desired outcomes scores were rated by parents as having some problems in peer relations. It is logical, then, that these girls would find the story about joining others and being accepted desirable, as this may not be a common occurrence for them. Consistent with this was the finding that
girls with high desired outcomes scores and good social skills were significantly more affiliative with strangers than those with high motivation and poor skills. Girls with a strong need to be liked and accepted would probably be outgoing with strangers, attempting to make new friends. However, the probability of rejection by strangers would increase if social skill was poor. Girls who were sensitive to rejection and lacking in social skill would be aware of this possibility and would make fewer affiliative attempts.

Undesired outcomes was the most effective motive measure in eliciting individual differences in girls, as it had relationships with both behavior and parental practices. Girls who chose the unsuccessful affiliation picture as most undesirable were less affiliative with friends than low motive girls. High motive scores were also associated with lower skill as assessed in the second role play. Girls with high undesired outcomes scores may have had permissive parents because the measure was negatively correlated with the authoritative measure and with the strict control item.

These findings are not clearly consistent with either the approach or avoidance interpretation. Previously, I speculated that in interaction with friends, fear of rejection may not be aroused. The lower affiliative behavior of girls who scored high on the undesired outcomes measure could be explained if it were assumed that they were need affiliators whose need was not activated in the Friend play session. However, the possible relationship with permissive parenting does not support such a conclusion. Based on the previous studies, it was expected that need for affiliation would be associated
with restrictive, harsh parents, and not with permissiveness. It is
difficult to draw any strong conclusions about this motive measure
(or any of the motive measures) based on the parent data. The parent
measures cannot be interpreted unambiguously. There is only a
limited amount of research dealing with parental practices and need
for affiliation with which to compare the present findings, and those
studies dealt with different age subjects.

**Role play measures**

One interesting finding in this study was that the role play
measures generally predicted affiliative behavior better than the
motive measures. Boys' interactions with friends and girls'
affiliativeness with both friends and strangers varied as a function
of social skill levels. Even at this young age, there were variations
in social competency, as assessed by the role playing, and possession
of appropriate social skills appeared to be important in social
interaction.

It is possible that motivational, as well as social skill
differences may have been tapped in the role play measures. This
might be especially true in role play one and two, where children had
to initiate and maintain interactions. Children with strong
affiliative goals might have been more concerned with the outcomes
of the role plays (whether or not they had a pleasant and successful
interaction with the other "kid"), and they might have tried harder
than children who didn't care. There were no positive relationships
between the first two role plays and any of the motive measures which
would support this speculation, but the relationships may not be linear. It may be that in order to get high scores on the role plays, children had to be motivated, and they had to have some knowledge of the appropriate actions and be able to express these actions with the puppets. Low scores could reflect either low skills or lack of concern with affiliation.

Theory of motive-skill-behavior relations

Consideration of social skill level made no difference in the relationships between affiliative behavior and the motive measures for boys. Some of the findings for girls were consistent with the theory that some degree of competency is necessary for the expression of motives in behavior. Girls were most affiliative with strangers when they had high motivation and good social skill, and this was true for all three of the motive measures. With the desired outcomes measure, the high-high group was significantly more affiliative than the high motive-low skill group, and for the other two measures the difference was between the high-high and low-low groups. These patterns provide only weak support for the theory since there was no significant interaction between social skill and motivation. To fully support the theory, it would have to be shown that social skill level makes a difference in affiliative behavior when motivation is strong, and that when motivation is low, social skill does not matter. This did not happen in these analyses because social skill alone appeared to be the stronger factor. However, the effects of social skill and motivation (affiliation story and undesired outcomes) seemed to be
additive. Possession of either one leads to slightly more affiliative behavior than neither, and having both leads to the greatest amount of interaction. This tentative support of the theory may be enough to justify continued consideration of social skill as a mediating factor in motive-behavior relationships.

Limitations of Behavioral Measures

The behavior ratings were only general indices of the amount of interaction. There was no information in the ratings about who initiated interactions and who accepted or rejected affiliative overtures. These specific behaviors may be more indicative of motivation, whereas the extent of interaction may be determined more by social skill and by the dynamics between the three children. The behavioral measures used in this study may have been insensitive to motivational differences. Specific scoring of the videotaped interactions will provide information about affiliation seeking, affiliation accepting, and rejection of affiliation. It will be possible to separately analyze the affiliative behaviors emitted by children and the behaviors directed toward children, thus accounting for the effects of other children and increasing the likelihood that motivational differences can be detected.

The play sessions were probably more conducive to social interaction than a purely naturalistic setting would be. Normally children would have more freedom to seek out others or to play alone if they choose. In the play sessions, children were put with others and they had to stay together in the play room. Although not
instructed to play together, some children may have believed that this was expected of them. Motivation to affiliate or not affiliate might have been overridden to some extent by these situational constraints.

Limitations of Parent Measures

The parent measures represent beliefs and self-reported behavior in hypothetical situations, rather than actual childrearing practices. As with any questionnaire data, parents' responses may have been influenced by social desirability. It was noted that most of the parents, especially those of girls, fell into the democratic control category. This could be partly due to the social desirability of these responses, and partly due to homogeneity of the sample. The composite parent measures apparently did not differentiate well between parents of girls. The distributions were skewed toward the more authoritative tendencies and the ranges and standard deviations were less for girls than for boys. The paucity of correlates for girls' parents measures may be a reflection of this. It is likely that with a larger, more diverse sample, the number and magnitude of correlates with parent measures would change.

Conclusion

The desired outcomes measure of affiliative goals does not appear to be a strong measure. The story about eating lunch with others may have been too commonplace. If it is the particular story that is weak, and not the technique, the desired outcomes indices of the other
goals might be better. It was noted that less than half of the children had a consistent hierarchy of the four goals. This might suggest that some children were choosing pictures haphazardly. They may have been too young to perform the task. This finding was also true of the undesired outcomes measure. Nevertheless, this measure appeared to be the most promising of the three in terms of the number of correlates. The affiliation doll story might be improved by developing a new scoring system which takes children’s feelings, as well as their actions, into account.

The three motive measures were not sufficiently related or similar in their correlates to warrant combining them for an aggregate measure of the affiliation motive. The affiliation story and undesired outcomes measures did have similar relationships to behavior and to the parent measures for girls. These two measures, if combined, might lead to better prediction of behavior, but even then they would account for less than 25% of the variance in affiliative behavior in the play sessions. Their correlates do not offer a clear interpretation of what the measures assessed. Further validation of the motive measures, through analysis of their relationships with specific affiliative behaviors in the play sessions, will be necessary.
FOOTNOTES

1It was not possible to divide subjects exactly at the medians due to the discrete nature of these variables. The best split for the affiliation story was obtained by denoting scores of 0, 1, or 2 as "low" and 3 through 6 as "high". The desired and undesired outcomes measures were divided such that scores of 0 or 1 were "low" and scores of 2 or 3 were "high". Role play one and two were summed and scores of 1 through 12 were considered "low" and 13 through 17 were "high".

2There were six possible comparisons within each sex. The Bonferroni t-tests therefore involved twelve contrasts, although only the larger differences will be reported.
REFERENCES


Strumpfer, D. Some correlates of Mehrabian's scales of affiliative tendency and sensitivity to rejection. *Journal of Personality, 1974, 87, 269-278.*
APPENDIX
Introduction to Interview Stories

I want you to help me tell some stories so I can find out what you think and how you feel about some things. I have some little people here to help us tell the stories. How about if we pretend that you are one of these children. Which one do you want to be? We'll also need a teacher. And these will be two other kids, Jane and Sally/Jack and Sam. And these will be other kids. I want you to be in charge of moving your doll to do things in the stories, okay? And you can move the other people, too, if you want and I will move them sometimes. I'm going to start the story and you can help tell the rest of it while you're moving your doll. I also want to ask you some questions when you are telling the stories. One question I will ask is "what happens" and another question I will ask is "what would you LIKE to happen". Let's pretend you go to a toy store. Now, what happens when you go to a toy store, what do you do there? ...answer... Okay, that's what happens when you go to a toy store. Now, what would you LIKE to happen when you go to the toy store? Is that the best thing that could happen? Sometimes what happens and what you'd LIKE to happen can be the same thing, but sometimes they're different. That was good. I'll also be asking you about how you feel and I want you to tell me how you really feel because I think it's important. Okay? Here's the first story...
Affiliation Story

Let's pretend it's the first day of school, and there are new toys to see and some kids from nursery school who you haven't seen all summer. There is an interesting looking toy over here, and over here are two kids, Jane and Sally/Jack and Sam who you know. What would you like to do? [If child plays with the toy, follow Part A. If child plays with kids, follow Part B.]

A. Play with toy (anything unaffiliative)

Why did you decide to play with the toy?

What would you like to happen when you play with the toy?

Let's say that J and S, these two kids who you know come over.

How do you feel? Sometimes you might feel good that J and S came over because you might want to play with them, or sometimes you might feel bad because you might want to play with the toy alone.

So, how do you really feel?

What would you like to happen when J and S come over? Do you want them to stay or go away. Why?

[If child wants them to stay]:

Now J and S have to leave, the teacher wants them.

How do you feel? What would you like to happen now?

Is there anything else you would like to have happen in this story?
B. Play with kids (anything affiliative)

Why did you decide to play with them? What would you like to happen when you play with J and S?

Now, J and S have to leave, the teacher wants them.

How do you feel? You might feel good because now you can play alone with a toy, or you might feel bad because you liked playing with J and S. How do you really feel?

What would you like to happen when J and S leave?

Why?

Is there anything else you would like to have happen in this story?

Why?
**Desired Outcomes**

**Instructions**

I'm going to tell you some stories and show you some pictures about a little boy/girl and let's pretend that this little boy/girl is you. I am going to tell you two stories at a time. Listen carefully and try to imagine that the stories are happening to you. Then I'm going to ask you which of the two stories you would most like to happen to you. Try to remember them well so that you can really decide which story you would like to happen the most.

[Point to the target child in the picture during first sentence of each story.]

For each pair of pictures, remind child about the stories with summary. Then ask:

Which one would you like to happen the most? Would you like to be the boy/girl who... or the boy/girl who...?

**Affiliation**

Here you have other kids to do things with. At snack time some kids are sitting together and you go over to join them and they make room for you. It looks like you can always be with other kids.

Summary: Here you are the boy/girl who joins other kids and can always have someone to play with.

**Prosocial**

Here you are able to help other kids. This kid is feeling sad. You go over and talk to him/her and then s/he feels better. It looks like you can help make other kids feel better.

Summary: Here you are the boy/girl who helps other kids and makes them feel good.

**Dominance**

Here all the kids are doing what you tell them to do. It is time to clean up after snack and you told other kids what to do and they did it. It looks like everyone does what you tell them to do.

Summary: Here you are the boy/girl who always gets the other kids to do what you tell them to do.
Dependence

Here there is nothing you have to do yourself because other kids help you. When you were going outside you wanted someone to come help you put on your jacket and soon another kid came over and helped you.

Summary: Here you are the boy/girl who always has someone to help you.
FIGURE 1. Picture Shown with Desired Outcomes Affiliation Story.
FIGURE 2. Picture Shown with Desired Outcomes Prosocial Story
FIGURE 3. Picture Shown with Desired Outcomes Dominance Story.
Undesired Outcomes

Introduction

Remember last time when I told you stories and showed you some pictures and you had to choose one of them? Today we'll do the same thing. I am going to tell you two stories at a time. Again I want you to pretend that they are happening to you. Last time I asked which one would be the best one to happen. This time I want you to think about them and tell me which one would be worst.

Affiliation

Here you could not find anyone to play with. Outside, you wanted to join the other kids playing ball, but they said the teams were even so you couldn't play. It looks like this time you have nobody to play with.

Summary: Here you are the boy/girl who can not find anybody to play with.

Prosocial

Here you are trying to help another kid who hurt his/her leg. You came over and tried to make him/her feel better, but s/he said the leg hurt too much and kept crying. It looks like even though you wanted to help, there was nothing you could do.

Summary: Here you are the boy/girl who can not help another kid.

Dominance

Here the other kids are not doing what you tell them to do. You told the kids to make a tower with the blocks but they decided to build a bridge instead. It looks like you couldn't get them to do what you told them to do.

Summary: Here you are the boy/girl who cannot get others to do what you tell them to do.

Dependence

Here you are doing things yourself because no one will help you. You decide to play with a new puzzle, but you wanted someone to come over first and show you how to do it, but no one came over. It looks like you could not get anyone to help you with the puzzle.

Summary: Here you are the boy/girl that nobody comes over to help.
FIGURE 5. Picture Shown with Undesired Outcomes Affiliation Story.
FIGURE 6. Picture Shown with Undesired Outcomes Prosocial Story.
FIGURE 8. Picture Shown with Undesired Outcomes Dependence Story.
Social Skill Measures

Introduction

Now we're going to do something a little different. I have some puppets here that we can use. Which one would you like to be? Okay, and I'll be this one, and let's pretend that we are friends. We can make the puppets talk like they are really us.

Role Play 1

Let's pretend I'm painting on this giant piece of paper. Why don't you come over and see if you can paint with me.

[If child does nothing, give prompt] "Gee, I'm having lots of fun painting. Maybe you'd like to paint with me."

[If child asks to paint] "Oh, I don't know. Why should I let you paint with me?"

"Okay, you can use this brush." [after an appropriate response]

[After a brief period of painting together] "Are we done?"

"Wow, this is a beautiful painting we made. I want to take it home and hang it on my wall."

- if child says nothing - "How come you don't want the picture?"

- child wants picture - "But I want it too. What should be done?"

(get child to negotiate)

- child grabs or fights - Grab back, "I want it too!"

End with some solution or negotiation, i.e., tear picture in half.
Role Play 2

Good, now let's try another story. (change puppets)

Let's pretend I'm a new kid at school and today is my first day.

Why don't you see if you can make friends with me.

- child does nothing, give prompt "Sigh," (pace, look around uncertainly for something to do) If still nothing, say "Hi"
- child initiates - "I no speak english"

(prompt) - Try to get me to play with you.

Role Play 3

Okay, now I'm going to pretend to be another child. (Interviewer puts on a different puppet.) The teacher has some wonderful sparkles for everyone to make pictures with. She's leaving the room to go get them and then she'll put them here. We all need to line up to get sparkles. (Interviewer starts lining up the other puppets and waits for the child to get in line. Then the interviewer puppet pushes the child's puppet out of line, saying "I'm getting in front of you!")

a) If child does nothing: interviewer repeats taught "I'm in front of you, nyaa nyaa!"

b) If child hits: interviewer falls over, saying "you hit me," and then pushes back.

c) If child pushes to regain position or simply gets in front gently: interviewer says "you got in front of me. I want to be in front!" (Pushes again)

d) If child responds verbally, i.e., "you're not supposed to cut": interviewer says "I don't care" and stays in front.
e) If child says "I'll tell the teacher": interviewer says "the teacher isn't here."

After the children respond to these interviewer actions, the teacher comes back and hands out the imaginary sparkles. The interviewer puts on a different puppet and goes over to child's puppet and says "oh, what a beautiful picture you made!"
APPENDIX B
PARENT QUESTIONNAIRE

Dear Parent,

Thank you very much in advance for your effort and cooperation in filling out the questionnaire that is enclosed. It is really several smaller questionnaires. We would greatly appreciate it if you would answer the questions; if, for some reason, there is a question you really don't want to answer, you are of course free to do that. We believe that few if any questions will pose a problem. Of course, the information that you give us will be fully confidential.

In the questionnaires we are trying to find out about your child's preference in his or her interactions with peers and about some of your ways of guiding and raising your children. There are, of course, no right or wrong answers. Children and parents differ greatly in these things.

If you have any questions, please feel free to ask. Please fill out the questionnaires in the order they are presented (as they are numbered). Thank you once again for your cooperation.

Ervin Staub and the team of the Social Interaction Project
I. I WANT MY CHILD TO

When we raise our children, we often ask ourselves: what kind of a person would I like him/her to become? What are the goals I would like him/her to achieve? There are, of course, many possible answers to this question. Please indicate your preference after each item, using the following scale, by circling the alternative that best expresses your feelings:

-2 I would very much dislike my child to be (or act) this way.
-1 I would prefer not to have my child be (or act) this way.
0 It does not really matter to me whether my child is (or acts) this way or not
+1 I would like to have my child be (or act) this way.
+2 I would very much like my child to be (or act) this way.
I want my child to ...

1. ... learn to cope with problems by him/herself and handle difficult situations without other people's assistance.

\[
\begin{array}{ccccc}
-2 & -1 & 0 & +1 & +2 \\
\end{array}
\]

8. ... enjoy being in the company of other children, regardless of the type of activity, just for the sake of being with others.

\[
\begin{array}{ccccc}
-2 & -1 & 0 & +1 & +2 \\
\end{array}
\]

13. ... know that others' assistance is a source of good feelings, a way to avoid frustration; and to be willing to rely on other people whenever he/she needs help.

\[
\begin{array}{ccccc}
-2 & -1 & 0 & +1 & +2 \\
\end{array}
\]

17. ... be able to play alone and enjoy it, and to know that often it is preferable to be alone.

\[
\begin{array}{ccccc}
-2 & -1 & 0 & +1 & +2 \\
\end{array}
\]

Note: Only those items analyzed in the present study are included here.
II. GENERAL BELIEFS LIST

We all hold certain attitudes and beliefs concerning childrearing. We are interested in your feelings about the ways of raising children and interacting with them.

Please indicate whether you agree or disagree with each of the following statements by circling the alternative which most accurately reflects your feelings.

5. Children should have their own duties which they should fulfill, even if they don't like to do them.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>moderately disagree</th>
<th>not sure</th>
<th>moderately agree</th>
<th>strongly agree</th>
</tr>
</thead>
</table>

6. When children are told to do something that a parent considers important, the parent should insist on it even if the child protests.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>moderately disagree</th>
<th>not sure</th>
<th>moderately agree</th>
<th>strongly agree</th>
</tr>
</thead>
</table>

8. Childhood is a time when parents should make life for children as easy as possible; they will have enough difficulties to overcome by themselves when they grow up.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>moderately disagree</th>
<th>not sure</th>
<th>moderately agree</th>
<th>strongly agree</th>
</tr>
</thead>
</table>

9. It is nice when children ask for their parents' help and assistance and show need for the parents even if they can do things by themselves.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>moderately disagree</th>
<th>not sure</th>
<th>moderately agree</th>
<th>strongly agree</th>
</tr>
</thead>
</table>

13. It is desirable that a parent not insist that the child does what he/she was told if a child give plausible reasons for not wanting to do something.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>moderately disagree</th>
<th>not sure</th>
<th>moderately agree</th>
<th>strongly agree</th>
</tr>
</thead>
</table>
15. Parents do not need to give children a reason for every demand; children should obey when the parent says "because I told you so."

Strongly | moderately | not | moderately | strongly
disagree | disagree | sure | agree | agree

17. Strict rules (like bedtime hour, TV watching, household duties) are not necessary.

Strongly | moderately | not | moderately | strongly
disagree | disagree | sure | agree | agree

18. Children should be encouraged to develop relationships with many people from outside the family.

Strongly | moderately | not | moderately | strongly
disagree | disagree | sure | agree | agree

23. It is more important for children to have frequent social contact with other children than to be in the company of adults.

Strongly | moderately | not | moderately | strongly
disagree | disagree | sure | agree | agree
III. Everyday Life Situations and Reactions List

In this questionnaire we are describing a number of behaviors and events related to children that parents encounter. We are interested in finding out how you usually, most frequently react to such behavior in your child.

We have a list of behaviors that children engage in and, on separate pages, we describe many parental reactions. Some of these are reactions parents are likely to have when they are pleased; others are the reactions which they have when they are displeased.

After the description of each behavior or event relating to your child, please choose the first reaction that you are most likely to have (or might have most frequently) and the second most likely or most frequent reaction. If there is some way you might respond and it is not mentioned on the list, please describe it in the space provided (under the "other" heading) in addition to the two reactions that you choose from the list. If this "other" reaction that you are describing is your most likely one, please write the number "1" after it.

You may find it useful to take out the parental reaction pages, read them before you start answering, and keep them separately while you are responding, so that it is easier for you to look at the list and choose the reactions that best describe your own.
CHILD'S ACTIONS AND EVENTS

After each item describing a child's behavior, action, or event, put the number of your reaction from the reactions list, or, if none of the reactions seems to you to be your reaction, describe your own under "other."

1. Your child helped another child.
   My most frequent reaction ____.
   My second most frequent reaction ____.
   Other:

2. Your child talked back to you.
   My most frequent reaction ____.
   My second most frequent reaction ____.
   Other:

3. Your child was particularly obedient and well-behaved.
   My most frequent reaction ____.
   My second most frequent reaction ____.
   Other:

4. Your child was careless and destroyed something of value.
   My most frequent reaction ____.
   My second most frequent reaction ____.
   Other:

5. Your child did well at school.
   My most frequent reaction ____.
   My second most frequent reaction ____.
   Other:

6. Your child physically hurt another child.
   My most frequent reaction ____.
   My second most frequent reaction ____.
   Other:
7. Your child kept asking for something after you had said "No."
   My most frequent reaction _____.
   My second most frequent reaction _____.
   Other:

8. Your child did something that you told her/him not to do.
   My most frequent reaction _____.
   My second most frequent reaction _____.
   Other:

9. Your child shared toys with another child.
   My most frequent reaction _____.
   My second most frequent reaction _____.
   Other:

10. Your child did not do well at school.
    My most frequent reaction _____.
    My second most frequent reaction _____.
    Other:

11. Your child cleaned her/his room.
    My most frequent reaction _____.
    My second most frequent reaction _____.
    Other:

12. Your child tried to repair something that was broken (toy, game, etc.)
    My most frequent reaction _____.
    My second most frequent reaction _____.
    Other:

13. Your child left her/his room messy.
    My most frequent reaction _____.
    My second most frequent reaction _____.
    Other:
14. Your child was understanding when you were unable to do something that you had planned to do together (like going to a movie).

   My most frequent reaction _____.
   My second most frequent reaction _____.
   Other:

15. Your child made fun of another child.

   My most frequent reaction _____.
   My second most frequent reaction _____.
   Other:

16. Your child said something nice to you (such as he/she loves you).

   My most frequent reaction _____.
   My second most frequent reaction _____.
   Other:

17. Your child attempted to console another child.

   My most frequent reaction _____.
   My second most frequent reaction _____.
   Other:

18. Your child did not share with another child.

   My most frequent reaction _____.
   My second most frequent reaction _____.
   Other:
PARENTAL REACTIONS LIST

Reactions of parents "pleased" by child's actions or events.

1. Grant your child special privileges, such as extra TV watching, more time to play, etc.
2. Tell your child that you are proud of him/her.
3. Tell your child that you love her/him, or express your affection in other words.
4. Show to your child that what he/she did was right according to the values and rules you try to teach your child.
5. Hug and kiss your child.
6. Point to the positive consequences of obeying values that you try to teach your child.
7. Point out to your child the positive effects such actions have on others.
8. Buy child candy, toy, or other gift.
9. Discuss with your child the good feelings of others caused by his/her actions.
10. Release your child from certain chores and duties.
11. Give positive evaluation of what child did in general terms ("That was a good or nice thing to do.")
12. Point out to the child what he/she accomplished.
PARENTAL REACTIONS LIST

Reactions of parents "displeased" by child's actions or events.

13. Spanking or some other form of physical punishment.
14. Point out to your child the negative effects such actions have on others.
15. Show your disapproval by ignoring your child and not talking to him/her for a while.
16. Tell your child that because of what she/he did, you are angry with her/him.
17. Explain why his/her actions were wrong in terms of breaking rules, or not living up to standards.
18. Take away privileges (candy, allowance, etc.).
19. Discuss with your child the bad feelings of others caused by his/her actions.
20. Send your child to her/his room for a period of time.
21. Point out to your child the damage or harm caused by his/her actions.
22. Try to make your child feel sorry and bad about what he/she did.
23. Point to the general rule you hold, which may be: "people should not hurt other people" or "children should keep their rooms clean."
24. Give negative evaluation of what your child did in general terms ("that was a bad thing to do.")
APPENDIX C

SCORING SYSTEMS FOR INTERVIEW MEASURES
I. What would you like to do?

- play with toy
- play with kids

II. Kids come over

- go away
- stay
- score=0

III. Kids leave

- play with toy
- want kids
- find other
- play with toy
- want kids
- find other

* Add 2 points if child chooses toy in step I, but then decides to go over to the other kids before the interviewer brings them to the child in step II.
Role Play I

Part A

Interviewer: "See if you can paint with me"

Child:  

\[ \begin{array}{ccc}
\text{nothing} & \text{starts painting} & \text{asks to paint} \\
0 & 1 & 2
\end{array} \]

Part B

Interviewer response - depends upon what child did above.

Child:  

\[ \begin{array}{ccc}
\text{unappealing} & \text{nothing} & \text{appealing} \\
\text{(leaves, tells teacher, hits, threatens)} & . & (\text{offers help, sharing, friendship}) \\
\text{unappealing or nothing} & \text{appealing} & \text{unappealing or nothing} \\
0 & 1 & 2
\end{array} \]

Part C

Interviewer: "I want to take the picture home"

Child:  

\[ \begin{array}{ccc}
\text{No, I want it} & \text{Ok, you take it} & \text{Let's share, cut in half, make another (negotiation)} \\
\text{I: "I want it" or "don't you want it?"} & . & 4
\end{array} \]

C:  

\[ \begin{array}{ccc}
\text{NO! OK} & \text{let's cut it in half, etc.} & \text{yes but no ideas for can have it in half, etc.} \\
0 & 1 & 3
\end{array} \]

\[ \begin{array}{ccc}
\text{solution} & \text{it} & \text{half, etc.} \\
1 & 2 & 3
\end{array} \]

Number under each line indicates score for that part.
Final score equals the sum of scores on each part.
Possible range of scores is 0 to 9.
Role Play II

Part A

Interviewer: "See if you can make friends with the new kid"

Child: nothing 0  "Hi" 1

Part B

Interviewer: "Hi"

Child: nothing 0  "Wanna play?  What's your name?" 2

Prompt by I: nothing 0  "Wanna play?" 1

Part C

Interviewer: "Me no understand english"

Child:

leaves talks nothing asks speaks nonverbal or
0 normally 2 teacher slower, for louder kid's language/
1 help 3 teaches kid english 5

Final score is the sum of scores on the three parts.

Possible range of scores is 0 to 8.
Role Play III

Part A

Interviewer: Pushes into line in front of child.

Child:

<table>
<thead>
<tr>
<th>do nothing</th>
<th>tells teacher</th>
<th>pushes back</th>
<th>pushes and says something</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

say something: "no cutting"/ "that's ok" 4

If child requires a prompt before responding, one point is subtracted.

Part B

Interviewer: Pushes again or gives aggravating verbal response.

Child:

<table>
<thead>
<tr>
<th>do nothing</th>
<th>tells teacher</th>
<th>pushes back</th>
<th>pushes and says something</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

say something: "no cutting"/ "that's ok" 5

Final score is sum of the two parts

Possible range of scores is 0 to 9.