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# An examination of associations between children's popularity and mothers' and children's views of relationships

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# AN EXAMINATION OF ASSOCIATIONS BETWEEN CHILDREN'S POPULARITY AND MOTHERS' AND CHILDREN'S VIEWS OF RELATIONSHIPS

by

Jane Elizabeth Runion

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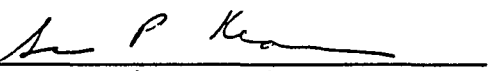

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APPROVAL PAGE

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RUNION, JANE ELIZABETH, Ph.D. An Examination of Associations Between Children's Popularity and Mothers' and Children's Views of Relationships. (1992) Directed by Dr. Susan Phillips Keane. 75 pp.

The purpose of this study was to assess the associations between children's popularity, as indexed by peer sociometric nominations, and aspects of mothers' and children's views of social relationships. Specifically, this study examined the association between peer acceptance of third grade children (based on sociometric nominations; Coie, Dodge, & Coppetelli, 1982), and the following variables: mothers' representations of attachment relationships, mothers' perceptions of the quality of their own childhood peer relationships and current social support from family and peers, and children's perceptions of their own current peer relationships and their relationships with their mothers.

Several potential pathways were considered, and it was hypothesized that mother's representations of attachment relationships, children's views of the mother-child relationship, and children's views of peer relationships would combine to provide the strongest prediction of children's sociometric status. Factor analysis, multiple regression analyses, and discriminant function analyses were employed to develop a predictive model.

The hypothesized model was not supported. Rather, mothers' and children's reports of their perceptions of

current social support and acceptance by friends and family provided the best prediction of children's sociometric status. The results are viewed as supporting a model of social development in which family relationships and friendships are viewed as relatively distinct by the time a child reaches the age of the children in this study (approximately nine years-old). It is suggested that longitudinal or cross-sectional data might provide additional insight into these issues.

# CHAPTER I

## INTRODUCTION

The volume of research on attachment and related areas of social development has increased substantially since the introduction of the now well known Strange Situation procedure for assessing infant-mother attachment (Ainsworth, Blehar, Waters, & Wall, 1978; Ainsworth & Wittig 1969). In recent years, developmental psychologists working in the area of infant-mother attachment have begun to follow the development of their infant subjects into childhood and to assess the relationship between attachment classification in infancy and other social-behavioral variables in childhood. Children who as infants were classified as securely attached to their mothers have been found to take a more positive approach to persons and tasks (Arend, Gove, & Sroufe, 1979), to be more compliant and more enthusiastic, persistent problem solvers (Matas, Arend, & Sroufe, 1978), to demonstrate more competent social behavior with peers (Main & Weston, 1981; Sroufe, 1983; Waters, Wippman, & Sroufe, 1979), and to deal more constructively with separation (Main, Kaplan, & Cassidy, 1985) than those previously classified as insecurely attached.

The relationship between important aspects of children's social functioning and their mothers'

representations of attachment relationships has also begun to be explored. Ricks (1985) assessed one-year-old infants using the Strange Situation and asked mothers to complete the O'Brien-Epstein Self Report Inventory (O'Brien, 1981) and the Mother-Father-Peer Scale (Epstein, 1983). The Self Report Inventory assesses self-esteem and self-concept, and the Mother-Father-Peer Scale assesses perceptions of childhood acceptance versus rejection by mother, father, and peers, encouragement of independence versus overprotection by mother and father, and current over-idealization of mother and father. It was found that mothers of securely attached infants had higher self-esteem and reported memories of greater acceptance by parents and peers than did mothers of insecurely attached infants. The relationship between a mother's report of acceptance by her own mother and her child's attachment classification was particularly strong.

In a follow-up study which included some of the same subjects, Ricks (1985) obtained ratings of the emotional state of four- and five-year-olds during a laboratory session. These children had all been assessed in the Strange Situation at one year of age. Mothers again completed a self-esteem measure and the Mother-Father-Peer Scale. Children who had been classified as securely attached during infancy received more positive ratings of emotional state than did children who had been classified as insecurely

attached. The emotions ratings were also found to be related to ratings of mothers' supportiveness and pleasure in interacting with the preschooler, and to ratings of family stress occurring between the infant and preschool assessments. The children's earlier attachment classifications were found to be related to maternal defensiveness and idealization of mother and father, with mothers of the insecure infants demonstrating a tendency to be defensive and idealize. Mothers' reports of acceptance by their own mothers were strongly related to the child emotions ratings.

The Adult Attachment Interview (George, Kaplan, & Main, 1984) is another instrument that has been used to assess adults' mental representations of their attachment relationships. Main and Goldwyn (1985) have developed a scoring system that involves rating the interview transcripts for descriptions of rejection by mother in childhood, idealization of a rejecting mother, anger toward mother now, insistence on inability to recall childhood, and overall coherence. Interviewees are then classified based on this scoring as Secure, Dismissing, or Preoccupied with respect to their attitudes toward attachment relationships. Ordinal ratings of degree of security have also been derived from this interview (Main, Kaplan, & Cassidy, 1985). Classification is based not only on the scoring of individual interview responses, but also on the

extent to which the subject's description of specific events in her family of origin is congruent with her general characterization of her relationships with those family members.

Classification of mothers based on the Adult Attachment Interview when their children were six years old has been shown to be significantly related to the child's previously assessed attachment classification in infancy (based on the Ainsworth et al. (1978) Strange Situation procedure), the quality of the six-year-old child's current relationship with the mother, and the child's ability to respond openly, directly, and effectively to hypothetical and real-life events involving separation (Main, Kaplan, & Cassidy, 1985). Main and Goldwyn (1984) found that a mother's classification based on this interview is predictive of her rejection or acceptance of her infant, and that the infant's tendency to avoid the mother in the reunion episode of the Strange Situation significantly correlated with Adult Attachment Interview ratings of rejection by mother, insistence on inability to recall childhood, and idealization of a rejecting mother.

Other investigators (Kobak & Sceery, 1988) have demonstrated that classification of college students based on the Adult Attachment Interview is related to hostility, affect regulation, loneliness, anxiety, perceived social support, personal distress, ego-resilience, and

interpersonal distance. Adults' classification based on this interview has thus been shown to be related to a number of important personality and social-behavioral features of the interviewed individuals and their children.

In general, the results of the studies just described appear to suggest a degree of continuity between the quality of a mother's mental representation (or working model) of her childhood attachment relationships, and at least some aspects of the quality of her relationship with her own child and that child's social functioning. It is important to note that it is not known to what extent mothers' retrospective accounts accurately reflect their actual childhood experiences, nor is it known whether classification based on the Adult Attachment Interview would be related to the adults' attachment classifications during infancy and toddlerhood. Also, it remains unclear exactly how attachment in infancy and subsequent peer relationships might be related. This issue will be explored further below.

Ricks (1985) provides a brief and excellent discussion of the problems inherent in the use of retrospective methods in this research area, as well as the problems with alternative approaches. She points out that recall of past events likely proceeds through complex reconstructive processes, and may not be veridical in the sense of possessing anything like one-to-one correspondence with the actual event. She notes that cognitive researchers have

suggested that recall is affected by present cognitive structures (Piaget & Inhelder, 1973), mood (Bower, 1981) and contextual factors (Loftus, 1979). The few studies that have followed subjects longitudinally and provided data that could be used to assess the accuracy of individuals' retrospective accounts of childhood suggest that adults' reports of parental behavior during middle childhood and adolescence are more accurate than their reports of parental behavior from birth to three years (Shaefer & Bailey, 1967), and that reports remain relatively consistent from early adulthood to old age, but with wide individual differences in consistency of recall (Field, 1981). Fraiberg, Adelson, and Shapiro (1975) have suggested that adults who are repeating a pattern of maltreatment with their own children often lack access to memories of the affect associated with their own experiences of maltreatment as children.

Ricks (1985) also notes that longitudinal studies, often held up as the answer to the difficulties presented by retrospective methods, have drawbacks. In order to study even two successive generations of parents, it would be necessary to extend the study for at least 30 years. During such a long period both theory and methodology are likely to change significantly and one then must choose between continuing to rely on what has come to be viewed as less than optimal theory and methods, or to make adjustments that make it difficult or impossible to compare the earlier and

later data. In addition, the persons involved in data collection would almost certainly change several times across this time span.

Although the children who have been followed longitudinally in the research described above were almost all six years old or younger at the time of the most recent assessments, work in other areas suggests that early patterns of social difficulty are likely to be carried forward into later childhood and perhaps adulthood. Accumulating evidence suggests a relationship between children's social competence in childhood peer relationships and their adjustment in later life (Cowen, Pederson, Babigian, Izzo, & Trost, 1973; Parker & Asher, 1987). In particular, children rejected by their peers appear to be at increased risk for later dropping out of school, criminality, and adult psychopathology (Parker & Asher, 1987).

Although peer rejection is becoming accepted as a risk factor for social difficulties later in life, debate surrounds the issues of how children's social status evolves and whether significantly deviant social behavior nearly always precedes peer rejection, or if perhaps group dynamics dictate that someone within the group must be socially rejected and once this person(s) is identified the experience of consistent rejection leads to significantly deviant social behavior. It seems likely that rejection by

peers has a negative impact on a child's social development and that frequent deviant social behavior will lead to rejection by peers.

The extent to which rejection by peers typically leads to or follows persistent deviant social behavior has not been satisfactorily resolved, and the emergence and maintenance of children's social status are only beginning to be conceptualized as distinct processes (cf., Coie, 1990). Although the current social-cognitive and interpersonal skills of children identified as socially rejected are often used to explain their rejected status, it is difficult to study the emergence phase adequately, and much remains unknown about how and why particular children come to be rejected by peers.

A recent study by Putallaz (1989) makes what she describes as a "first cut" at the question of whether parents' recollections of childhood social interactions influence the parents' impact on their children's social behavior. Putallaz asked mothers of four-year-olds to rate themselves as elementary school children on several aspects of social behavior and social competence, to recall the number of close friends they had, to write about a particular incident that characterized their childhood peer interactions, and to tell what about their own childhood they would not want their child to have to repeat, and what they would keep the same for their child. Each child

participated in a single one-hour laboratory play session with five other children who were also subjects. Sociometric nominations were collected within each play group following the play sessions.

These play groups were relatively small and interacted only for a brief period, and therefore may not be the ideal analog for the sociometric ratings obtained from entire classrooms or grade levels of children with prolonged experience together. Reasonable parallels between the two situations do exist, however, and the results were interesting.

Mothers were divided into three groups based on the predominant theme of their memories: predominantly positive, predominantly negative with an anxious/lonely theme, and predominantly negative with a rejection theme. Both groups of mothers with predominantly negative themes rated themselves as having been less socially competent that did mothers with more positive themes, but the two negative theme groups differed in the focus of their descriptions. The distinction between these two groups of mothers was based on the specific focus of their negative descriptions. The anxious/lonely group viewed themselves as less socially skillful and their memories often focused on descriptions of their own social inadequacies. The rejection theme group tended to focus on other children as having caused their negative childhood social experiences. The children of

mothers in this latter group were rated as the least socially preferred by the children in their laboratory play group, with the children of anxious mothers most preferred and children of mothers with positive themes intermediate between these two groups.

Putallaz suggests that the anxious/lonely mothers form deliberate intentions to provide their children with a more nurturing mother-child relationship and more positive opportunities for social development (e.g., they enrolled them in more activities) than they experienced during their childhoods. These intentions then act as mediators between the parental memory and the parental behavior which subsequently influences the child's social development and eventual competence with peers. Mothers with positive memories or memories of peer rejection, Putallaz suggests, are less likely to form such specific, conscious intentions because, in the former case, they may see no reason to be concerned that their children will not do well socially, and in the latter case, they attribute social success or failure to external factors beyond the control of the individual. Thus, their childhood memories also influence their parenting behavior, but without the mediation of the consciously formed intentions proposed for the anxious/lonely mothers. Putallaz notes that it is possible that, if this pattern of relating is carried forward across development, the anxious/lonely mothers may become intrusive

and controlling as their children become older and capable of functioning more autonomously.

A number of authors have recently suggested a specific relationship between attachment history and childhood social competence in peer relationships (Belsky & Nezworski, 1988; Rubin & Lollis, 1988). The extent to which a child's socialization experiences with his parents influence his social success within his peer group continues to be debated, however, and other factors such as child characteristics (e.g., temperament, general sociability, physical appearance, athletic ability) and socialization experiences within the peer group have been noted as also having substantial importance. It is also possible that the association sometimes found between parent-child and child-peer relationships reflects the influence of the <u>child's</u> overall level of social skill.

The assumptions underlying various conceptualizations of the connection between the mother-child relationship and subsequent development are frequently not made explicit. Kagan (1979) has criticized three premises he sees as implicit in most researchers' conceptualization of human development. These are

> that a particular set of external conditions is inevitably associated with a fixed set of consequences for all children...that some psychological structures created by certain classes of early experience are stable over time... [and] that the nature of the mother-infant bond is the primary determinant of the future psychological health of the child. (p. 886)

It is easy to see that these three assumptions, to the extent that they are held (especially implicitly) by an individual, would have a tremendous impact on the questions asked and theories developed. Kagan does not deny that early experience is important but takes issue with the idea that it is more important and somehow more singularly influential than later experience.

Varying degrees of the premises identified by Kagan are apparent in Lamb and Nash's (1989) outline of four approaches to conceptualization of the relationship between infant-mother and child-peer relationships. The first view is referred to as the "maternal precursor hypothesis," and suggests that social functioning with the mother is a precursor to social functioning with peers. Assumptions inherent in this model are that social skills that initially emerge in infant-mother interaction are later implemented with peers, but that some social skills are used more with the infant's mother than with peers.

The second view, attributed to Vandell (1985) is that there exist bidirectional influences between infant-mother and peer relationships. The basic premise of this model is that an individual's interpersonal relationships all affect one another; within such a framework the infant-mother relationship is not accorded special status.

A third approach, also attributed to Vandell (1985), as well as Hay (1985) and Lewis and Rosenblum (1975), is that

the social skills requisite for relationships with a child's mother and peers develop simultaneously within the broad context of social development. The fourth and final approach views the development of social skills for use with mother and peers as relatively distinct. Mueller (1979) suggests that, through peer interaction, children discover skills that work in controlling peer behavior and that these skills and their ontogeny differ from the skills used in interaction with the child's mother. Others have suggested that not only do mother-child and child-peer relationships differ in ontogeny, they differ substantively in function as well (Hartup, 1989; Harlow & Harlow, 1965; Suomi & Harlow, 1978).

Greenberg and Speltz (1988) also outline and discuss four alternative models of the influence of early attachment relationships on later behavior. The first involves a direct causal effect between infant attachment and later behavior. The authors note that problems have arisen with this model, which conceptualizes attachment classification essentially as a trait or attribute of the child. This type of model cannot explain a child's differing attachment security to mother and father (Sroufe, 1985) and is inconsistent with the finding that changes in attachment classification are related to changes in stress on the family (Lewis, Feiring, McGuffog, & Jaskir, 1984).

The second model suggests that the frequently observed continuity between attachment relationships and later behavior is due to continuity of environmental influences at both points in time. This model ignores the influence of any characteristics of the child and the fact that the child is an active participant in his/her own development.

The third model attributes the continuity between the attachment relationship and later behavior to mediation by the child's "working model" of relationships, developed through interactions in early infancy. Although the working model is modifiable, it becomes resistant to change after infancy.

The final model described by the authors (and the one that they endorse) is a multipathway model that incorporates the central features of the second and third models above, but also recognizes

> (a) the transactional nature of developmental processes (Sameroff & Chandler, 1975); (b) the increasing role of the child's working models in directing behavior and thought; (c) the importance of developmental changes in the child and parent and the structure and process of their relationship during the period of infancy to the preschool years; and (d) the influence of changes in the parent-child relationship on the child's working models. (p. 194)

These many different perspectives make it clear that the various influences on social development are exceedingly difficult to tease apart. To what extent parent-child relationships beginning in infancy lay the ground work for

future social competence remains open to debate, despite growing consensus that some relationship exists between socialization in the family and the peer group (cf., LaFreniere & Sroufe, 1985; McDonald & Parke, 1984; Putallaz & Heflin, 1990).

Consideration of current theories suggests a number of possible pathways to success or failure in peer relationships. One potential pathway originates in the mother's representation of attachment relationships, which then exerts an influence on the character of her relationship with her child, with the child's experience in the mother-child relationship influencing his/her competence with peers.

A second possibility is that the quality of the mother's current and/or childhood peer relationships (as opposed to her childhood relationships with her parents) predict her child's peer competence. Such a model might operate through mechanisms such as modeling and more explicit, intentional teaching about peer relationships. A third possibility is that the quality of the child's peer relationships is primarily influenced by the child's own view of social relationships in general, but not exclusively or primarily influenced by the mother-child relationship. Two final possibilities are that some combination of the models just outlined is most descriptive, or that the quality of children's peer relationships is relatively

independent of their general views of social relationships, the quality of their relationships with their mothers, and the quality of the mother's relationship history.

The aim of the current study was to determine which of the three pathways just described best represents the relationship between the quality of the children's current peer relationships (as measured by sociometric nominations) and the family and peer variables described above. Specifically, this study examined the association between peer acceptance of third grade children (based on sociometric nominations; Coie, Dodge, & Coppetelli, 1982), and the following variables: mothers' representations of attachment relationships, mothers' perceptions of the quality of their own childhood peer relationships and current social support from family and peers, and children's perceptions of their own current peer relationships and their relationships with their mothers.

It was hypothesized that the first model described above, which includes the mother's representation of attachment relationships, the child's view of his/her experience in the mother-child relationship, and the child's view of peer relationships, would provide the strongest prediction of children's standardized social preference scores or sociometric status.

# CHAPTER II

# METHOD

## Subjects

The subjects in this study were 69 mother-child pairs in which all children had completed the third grade within three months prior to their participation in the laboratory phase of the study. The subject selection process is described in detail below. Mothers of children in the sociometric groups of interest who had given consent for their child to participate in the sociometric screening at school were contacted by telephone and invited to participate in the laboratory phase of the study. Transportation was provided as necessary and mother-child pairs received five dollars, two coupons for a movie and ice cream, and some inexpensive "prizes" (e.g., plastic bracelet, neon shoe laces).

## Determination of categories and social preference scores

Sociometric nominations were collected in the schools during the children's third grade year. The procedure used was based on the method of Coie, Dodge, and Coppetelli (1982). This procedure results in the categorization of the children as Popular, Rejected, Average, Controversial, or Neglected. The procedure involves collecting nominations

from the children for up to three peers each for the categories "liked most" and "liked least." Means for nominations in each of the two categories are calculated within schools, and each raw score is then converted to a standardized score (z-score).

A "social preference" score is determined for each child by subtracting his/her "liked least" z-score from his/her "liked most" z-score. This score is intended to reflect generally how well a child is liked by peers, with higher scores representing greater peer acceptance. A high social preference score indicates that the number of nominations a child received from peers for "liked most" was large relative to the number of nominations (if any) received for "liked least.

A "social impact" score is computed by summing each child's "liked most" and "liked least" z-scores. This score is intended to reflect generally to what extent peers feel strongly (positive or negative) about a child. Higher scores reflect stronger reactions to the child, which may be predominantly positive, predominantly negative, or a mixture (i.e., some peers feel quite positive toward a child whom other peers strongly dislike).

The social preference and social impact scores were standardized within schools and used to assign children to one of the five sociometric groups, or to identify them as not meeting the criteria for any of the five categories:

| | |
|---|---|
| Popular | social preference z-score > 1.00 |
| | liked most z-score > 0 |
| | liked least z-score < 0 |
| Rejected | social preference z-score < -1.00 |
| | liked most z-score < 0 |
| | liked least z-score > 0 |
| Neglected | social impact z-score < -1.00 |
| | absolute liked most score = 0 |
| Controversial | social impact z-score > 1.00 |
| | liked most z-score > 0 |
| | liked least z-score > 0 |
| Average | -.75 < social preference z-score < .75 |

Coie, Dodge, and Coppetelli (1982) used a narrower range of standardized social preference scores in defining the Average group (-.50 < social preference z-score < .50). The range was expanded in the present study in order to include a more representative range of children and in order to make feasible conceptualization of standardized social preference scores as a continuous variable.

The category assignments were made such that children were assigned to the Average group only after it had been determined that they did not meet the criteria for the Neglected or Controversial groups. Similarly, children were assigned to the Neglected and Controversial groups only after it had been determined that they did not meet the criteria for the Popular or Rejected groups. The Popular,

Rejected, and Average groups are all mutually exclusive as they are based on different segments of the range of standardized social preference scores.

All children who received consent to participate were assigned to one of the groups described above, or identified as not classifiable. Table 1 describes the original screening sample by sociometric status and consent to participate in the screening. Table 2 provides the percentages of children in each of the sociometric status groups with and without consent to participate in the screening process.

In order to obtain a representative range of standardized social preference scores, children classified as Popular, Average, or Rejected were selected as the subjects for this study. Standardized social preference scores (ZPREF) thus provide a means of representing social preference as a continuous variable, and the groups Popular, Average, and Rejected provide a means of representing social preference as a categorical variable (sociometric status). Because there is some "gappiness" in the standardized social preference scores created by the use of a categorical selection process, analyses will be included to consider both categorical and continuous representations of these scores.

Table 1

Sociometric Status of Screening Sample

| | Reference Group | | |
|---|---|---|---|
| | Total Screening Sample n = 772 | Children With Consent n = 565 | Children Without Consent n = 207 |
| Status | Number in reference group / percentage of reference group | | |
| Popular | 100/13.0 | 78/13.8 | 22/10.6 |
| Rejected | 92/11.9 | 66/11.7 | 26/12.6 |
| Average | 245/31.7 | 181/32.0 | 64/30.9 |
| Controversial | 60/ 7.8 | 46/ 8.1 | 14/ 6.8 |
| Neglected | 91/11.8 | 52/ 9.2 | 39/18.8 |
| Unclassified | 184/23.8 | 142/25.1 | 42/20.3 |

Table 2

Percentage of Children in Sociometric Status Groups With and Without Consent

| Status | Percentage with consent | / percentage without consent |
|---|---|---|
| Popular | 78.0 | 22.0 |
| Rejected | 71.7 | 28.3 |
| Average | 73.9 | 26.1 |
| Controversial | 76.7 | 23.3 |
| Neglected | 57.1 | 42.9 |
| Unclassified | 77.2 | 22.8 |

Table 3 describes the children in the final laboratory sample by sociometric status, gender, and race. Table 4 describes the mothers in the laboratory sample by race and level of education, which was included as an approximation of socioeconomic status. Mothers were included in an educational group if they participated in that level of education at all, regardless of whether or not they received a degree.

In addition to those subjects listed in Table 3 and 4, the sample included one mother-child pair whose race was listed as "other." Their data have been excluded from frequency counts and statistical analyses that involve race. The sample also included a set of twins, one of whom was randomly selected to be excluded from all analyses.

Table 3

Sociometric Status, Race, and Gender of Final Sample

| | Sociometric Status | | |
|---|---|---|---|
| | ZPREF >1.00 | ZPREF -0.75 to 0.75 | ZPREF <-1.00 |
| Gender / Race | Popular | Average | Rejected |
| Girls | | | |
| Black | 5 | 5 | 4 |
| White | 9 | 8 | 6 |
| Boys | | | |
| Black | 5 | 5 | 6 |
| White | 4 | 6 | 5 |

Table 4

Level of Maternal Education and Race of Final Sample

| Maternal Education | Race | |
|---|---|---|
| | White | Black |
| High school | 5 | 11 |
| College | 18 | 13 |
| Graduate school | 15 | 6 |

Measures

What follows is a description of each of the measures completed by subjects in the laboratory phase of this study. The actual procedures followed (including which instruments were administered to whom) is described below, under the subheading "Procedure."

The **Mother-Father-Peer Scale** (MFP) (Epstein, 1983) is a 70-item Likert-scale instrument that measures individuals' perceptions of their childhood relationships with their parents and peers. In particular, it taps the degree to which mothers, fathers and peers are each reported to have been accepting versus rejecting, the degree to which mothers and fathers are each described as having been independence-encouraging versus overprotecting, and the degree to which mothers and fathers have been idealized. This measure yields scores on the following scales:

I. Maternal and Paternal Interaction Scales
   (identical items scored separately for description of mother and father)
   A. Independence-Encouragement vs. Overprotection
      range: 13-65
   B. Acceptance vs. Rejection
      range: 10-50
   C. Parent Idealization
      range: 7-35

II. Peer Interaction Scale

Acceptance vs. Rejection

range: 10-50

Test-retest reliability of the scales has been reported to range from 0.82 to 0.93, and they have been found to be moderately to highly correlated with several other measures of emotional adjustment and temperament (S. Epstein, personal communication, June 7, 1990).

Prociadano and Heller's (1983) **Perceived Social Support from Family** (PSSFA) and **Perceived Social Support from Friends** (PSSFR) scales are designed to assess an individual's sense that their relationships with family/friends are supportive and dependable. The authors of the instruments have demonstrated that the scales are internally consistent (Cronbach's alpha = 0.88 for PSSFR and 0.90 for PSSFA) and that each scale is composed of a single factor (Prociadano & Heller, 1983). Subjects circle "Yes," "No," or "Don't know" in response to each item. "Yes" and "No" answers that reflect social support receive one point; "Don't Know" and "Yes" or "No" answers that do not reflect social support are scored zero. Scores range from 0-20.

The **Children's Report of Parent Behavior Inventory** (CRPBI) (Schludermann & Schludermann, 1970), is a 108 item Likert questionnaire designed to measure the child's perception of the quality of the parent-child relationship. It produces scale scores on three dimensions of parenting:

acceptance versus rejection (CAR; high scores reflect acceptance), psychological control versus psychological autonomy (CPC; high scores reflect psychological control), and firm control versus lax control (CFC; high scores reflect firm control). Scores on each scale range from 10-30. Children's responses to this instrument have been shown to discriminate mothers of delinquent boys from mothers of nondelinquent boys, and reliabilities of the scales have been reported to range from 0.66 to 0.84 (Schaefer, 1963).

Procedure

Sixty-nine mother-child pairs participated in the laboratory phase of this study. Mothers completed a consent form which also requested their level of education, to be used as an estimate of socioeconomic status. Mothers were assigned to the educational levels "High School," "College," or "Graduate School" if they had participated at all in that level of education, whether or not they received a degree.

Mothers completed the Mother-Father-Peer Scale (MFP; Epstein, 1983), and Prociadano and Heller's (1983) Perceived Social Support from Family (PSSFA) and Perceived Social Support from Friends (PSSFR) scales. Children completed the Children's Report of Parent Behavior Inventory (CRPBI; Schludermann & Schludermann, 1970), the Perceived Social Support from Friends scale (PSSFR; Prociadano & Heller, 1983), and the Peer Interaction scale of the Mother-Father-Peer Scale (Epstein, 1983), reworded in the present tense

such that it addressed their perceptions of their current peer relationships. The order of administration of the above instruments was randomized across subjects.

# CHAPTER III

# RESULTS

## Preliminary analyses

The predictor variables selected for inclusion in this study were hypothesized to contribute to the prediction of children's sociometric status, or standardized social preference scores (ZPREF). Table 5 presents a list of predictor variables examined in this study. The names of the predictor variables that are based on responses by the mothers all begin with the letter "M" and the names of the predictor variables based on responses by the children all begin with the letter "C."

Tables 6-16 present the means for standardized social preference scores and for each of the predictor variables. Table 6 presents means for the entire sample, Tables 7-9 present means for each of the sociometric status groups, and Tables 10-16 present means for each of the levels of each of the demographic groups.

Table 5

Predictor Variables

| Variable | Measure | Description |
|---|---|---|
| MFIND | MFP | Mother's father encouraged independence |
| MMIND | MFP | Mother's mother encouraged independence |
| MFACC | MFP | Mother's father was accepting |
| MMACC | MFP | Mother's mother was accepting |
| MFIDEAL | MFP | Mother idealizes her father |
| MMIDEAL | MFP | Mother idealizes her mother |
| MPEER | MFP | Mother's childhood peers were accepting |
| MSSFA | PSSFA | Mother's current perception of social support from family |
| MSSFR | PSSFR | Mother's current perception of social support from friends |
| CPEER | MFP/PEER | Child's perception of acceptance by peers |
| CSSFR | PSSFR | Child's perception of social support from friends |
| CAR | CRPBI | Child's perception of acceptance versus rejection by mother |
| CPC | CRPBI | Child's perception of mother's use of psychological control strategies versus encouraging psychological autonomy |
| CFC | CRPBI | Child's perception of mother's use of firm and consistent versus lax and inconsistent discipline |

Table 6

Means of Criterion and Predictor Variables: All Subjects

| Variable | N | Mean | Std Dev | Min | Max | Range |
|---|---|---|---|---|---|---|
| ZPREF | 69 | -0.01 | 1.40 | -3.60 | 2.52 | 6.12 |
| MFIND | 68 | 47.48 | 9.45 | 18.00 | 64.00 | 46.00 |
| MMIND | 69 | 46.06 | 10.12 | 21.00 | 65.00 | 44.00 |
| MFACC | 68 | 40.13 | 7.95 | 19.00 | 50.00 | 31.00 |
| MMACC | 69 | 39.96 | 8.19 | 20.00 | 50.00 | 30.00 |
| MFIDEAL | 68 | 19.04 | 6.46 | 7.00 | 35.00 | 28.00 |
| MMIDEAL | 69 | 18.49 | 5.93 | 7.00 | 34.00 | 27.00 |
| MPEER | 67 | 37.57 | 8.15 | 18.00 | 50.00 | 32.00 |
| MSSFA | 69 | 15.28 | 4.79 | 3.00 | 20.00 | 17.00 |
| MSSFR | 68 | 14.75 | 4.78 | 3.00 | 20.00 | 17.00 |
| CPEER | 69 | 36.94 | 7.11 | 18.00 | 50.00 | 32.00 |
| CSSFR | 69 | 11.78 | 5.04 | 0.00 | 19.00 | 19.00 |
| CAR | 68 | 25.32 | 2.48 | 15.00 | 29.00 | 14.00 |
| CPC | 68 | 18.12 | 3.42 | 12.00 | 27.00 | 15.00 |
| CFC | 68 | 22.18 | 2.38 | 17.00 | 28.00 | 11.00 |

Table 7

Means of Criterion and Predictor Variables: Popular Children and Their Mothers

| Variable | N | Mean | Std Dev | Min | Max | Range |
|---|---|---|---|---|---|---|
| ZPREF | 23 | 1.57** | 0.43 | 1.00 | 2.52 | 1.52 |
| MFIND | 23 | 47.26 | 10.28 | 21.00 | 64.00 | 43.00 |
| MMIND | 23 | 48.43 | 9.36 | 27.00 | 65.00 | 38.00 |
| MFACC | 23 | 42.48 | 6.91 | 29.00 | 50.00 | 21.00 |
| MMACC | 23 | 41.13 | 5.89 | 25.00 | 50.00 | 25.00 |
| MFIDEAL | 23 | 20.13 | 5.48 | 10.00 | 29.00 | 19.00 |
| MMIDEAL | 23 | 18.96 | 4.86 | 10.00 | 27.00 | 17.00 |
| MPEER | 22 | 40.68 | 7.90 | 24.00 | 50.00 | 26.00 |
| MSSFA | 23 | 16.22 | 4.72 | 4.00 | 20.00 | 16.00 |
| MSSFR | 23 | 16.52* | 3.89 | 5.00 | 20.00 | 15.00 |
| CPEER | 23 | 39.30* | 7.15 | 20.00 | 50.00 | 30.00 |
| CSSFR | 23 | 13.48 | 3.51 | 6.00 | 19.00 | 13.00 |
| CAR | 23 | 25.52 | 2.47 | 18.00 | 29.00 | 11.00 |
| CPC | 23 | 18.04 | 2.96 | 14.00 | 26.00 | 12.00 |
| CFC | 23 | 22.04 | 2.74 | 17.00 | 28.00 | 11.00 |

* Differs from Rejected group at $p < 0.05$

** Differs from Average and Rejected groups at $p < 0.05$

Table 8

Means of Criterion and Predictor Variables: Average Children and Their Mothers

| Variable | N | Mean | Std Dev | Min | Max | Range |
|---|---|---|---|---|---|---|
| ZPREF | 24 | -0.01** | 0.41 | -0.69 | 0.73 | 1.41 |
| MFIND | 24 | 47.12 | 10.25 | 18.00 | 63.00 | 45.00 |
| MMIND | 24 | 44.95 | 10.28 | 25.00 | 59.00 | 34.00 |
| MFACC | 24 | 38.38 | 7.99 | 20.00 | 50.00 | 30.00 |
| MMACC | 24 | 40.04 | 9.00 | 21.00 | 50.00 | 29.00 |
| MFIDEAL | 24 | 18.00 | 6.01 | 8.00 | 29.00 | 21.00 |
| MMIDEAL | 24 | 18.12 | 7.07 | 7.00 | 34.00 | 27.00 |
| MPEER | 23 | 36.30 | 7.91 | 22.00 | 50.00 | 28.00 |
| MSSFA | 24 | 16.12 | 3.33 | 9.00 | 20.00 | 11.00 |
| MSSFR | 23 | 15.17* | 4.74 | 3.00 | 20.00 | 17.00 |
| CPEER | 24 | 37.46 | 5.21 | 24.00 | 48.00 | 24.00 |
| CSSFR | 24 | 11.62 | 5.22 | 0.00 | 19.00 | 19.00 |
| CAR | 24 | 25.21 | 2.10 | 20.00 | 28.00 | 8.00 |
| CPC | 24 | 18.21 | 3.59 | 13.00 | 24.00 | 11.00 |
| CFC | 24 | 21.67 | 2.10 | 18.00 | 26.00 | 8.00 |

* Differs from Rejected group at $p < 0.05$

** Differs from Popular and Rejected groups at $p < 0.05$

Table 9

Means of Criterions and Predictor Variables: Rejected Children and Their Mothers

| Variable | N | Mean | Std Dev | Min | Max | Range |
|---|---|---|---|---|---|---|
| ZPREF | 22 | -1.66** | 0.59 | -3.60 | -1.00 | 2.59 |
| MFIND | 21 | 48.14 | 7.84 | 37.00 | 64.00 | 27.00 |
| MMIND | 22 | 44.77 | 10.72 | 21.00 | 61.00 | 40.00 |
| MFACC | 21 | 39.57 | 8.69 | 19.00 | 50.00 | 31.00 |
| MMACC | 22 | 38.63 | 9.41 | 20.00 | 50.00 | 30.00 |
| MFIDEAL | 21 | 19.05 | 7.92 | 7.00 | 35.00 | 28.00 |
| MMIDEAL | 22 | 18.41 | 5.84 | 8.00 | 33.00 | 25.00 |
| MPEER | 22 | 35.77 | 8.09 | 18.00 | 50.00 | 32.00 |
| MSSFA | 22 | 13.41 | 5.79 | 3.00 | 20.00 | 17.00 |
| MSSFR | 22 | 12.45** | 4.92 | 5.00 | 20.00 | 15.00 |
| CPEER | 22 | 33.91* | 8.02 | 18.00 | 48.00 | 30.00 |
| CSSFR | 22 | 10.23 | 5.83 | 2.00 | 19.00 | 17.00 |
| CAR | 21 | 25.24 | 2.96 | 15.00 | 29.00 | 14.00 |
| CPC | 21 | 18.10 | 3.84 | 12.00 | 27.00 | 15.00 |
| CFC | 21 | 22.90 | 2.19 | 18.00 | 26.00 | 8.00 |

* Differs from Popular group at $p < 0.05$

** Differs from Popular and Average groups at $p < 0.05$

Table 10

Means of Criterion and Predictor Variables: Boys and Their Mothers

| Variable | N | Mean | Std Dev | Min | Max | Range |
|---|---|---|---|---|---|---|
| ZPREF | 31 | -0.21 | 1.44 | -3.60 | 2.52 | 6.12 |
| MFIND | 30 | 47.77 | 9.21 | 21.00 | 64.00 | 43.00 |
| MMIND | 31 | 46.94 | 8.02 | 28.00 | 58.00 | 30.00 |
| MFACC | 30 | 42.43* | 5.37 | 32.00 | 50.00 | 18.00 |
| MMACC | 31 | 41.81 | 7.47 | 20.00 | 50.00 | 30.00 |
| MFIDEAL | 30 | 19.57 | 5.99 | 8.00 | 33.00 | 25.00 |
| MMIDEAL | 31 | 19.71 | 5.87 | 7.00 | 34.00 | 27.00 |
| MPEER | 29 | 38.90 | 8.09 | 18.00 | 50.00 | 32.00 |
| MSSFA | 31 | 16.10 | 4.58 | 3.00 | 20.00 | 17.00 |
| MSSFR | 31 | 15.35 | 4.48 | 5.00 | 20.00 | 15.00 |
| CPEER | 31 | 36.22 | 6.96 | 21.00 | 50.00 | 29.00 |
| CSSFR | 31 | 10.58 | 5.05 | 0.00 | 18.00 | 18.00 |
| CAR | 30 | 25.77 | 2.65 | 15.00 | 29.00 | 14.00 |
| CPC | 30 | 18.53 | 3.75 | 12.00 | 27.00 | 15.00 |
| CFC | 30 | 22.53 | 2.57 | 18.00 | 28.00 | 10.00 |

* Differs from Girls/Mothers group at $p < 0.05$

Table 11

Means of Criterion and Predictor Variables: Girls and Their Mothers

| Variable | N | Mean | Std Dev | Min | Max | Range |
|---|---|---|---|---|---|---|
| ZPREF | 38 | 0.15 | 1.36 | -2.42 | 2.43 | 4.84 |
| MFIND | 38 | 47.26 | 9.76 | 18.00 | 64.00 | 46.00 |
| MMIND | 38 | 45.34 | 11.62 | 21.00 | 65.00 | 44.00 |
| MFACC | 38 | 38.32* | 9.18 | 19.00 | 50.00 | 31.00 |
| MMACC | 38 | 38.45 | 8.52 | 20.00 | 50.00 | 30.00 |
| MFIDEAL | 38 | 18.63 | 6.87 | 7.00 | 35.00 | 28.00 |
| MMIDEAL | 38 | 17.50 | 5.88 | 8.00 | 33.00 | 25.00 |
| MPEER | 38 | 36.55 | 8.15 | 22.00 | 50.00 | 28.00 |
| MSSFA | 38 | 14.63 | 4.92 | 3.00 | 20.00 | 17.00 |
| MSSFR | 37 | 14.24 | 5.02 | 3.00 | 20.00 | 17.00 |
| CPEER | 38 | 37.53 | 7.27 | 18.00 | 48.00 | 30.00 |
| CSSFR | 38 | 12.79 | 4.89 | 2.00 | 19.00 | 17.00 |
| CAR | 38 | 24.97 | 2.32 | 18.00 | 28.00 | 10.00 |
| CPC | 38 | 17.79 | 3.16 | 13.00 | 24.00 | 11.00 |
| CFC | 38 | 21.89 | 2.22 | 17.00 | 26.00 | 9.00 |

* Differs from Boys/Mothers group at $p < 0.05$

Table 12

Means of Criterion and Predictor Variables: White Subjects

| Variable | N | Mean | Std Dev | Min | Max | Range |
|---|---|---|---|---|---|---|
| ZPREF | 38 | 0.11 | 1.40 | -2.42 | 2.52 | 4.94 |
| MFIND | 38 | 47.76 | 10.10 | 18.00 | 64.00 | 46.00 |
| MMIND | 38 | 46.23 | 10.68 | 21.00 | 65.00 | 44.00 |
| MFACC | 38 | 39.50 | 8.70 | 19.00 | 50.00 | 31.00 |
| MMACC | 38 | 39.21 | 9.44 | 20.00 | 50.00 | 30.00 |
| MFIDEAL | 38 | 16.68* | 5.77 | 7.00 | 33.00 | 26.00 |
| MMIDEAL | 38 | 15.66* | 4.66 | 7.00 | 25.00 | 18.00 |
| MPEER | 36 | 37.78 | 7.35 | 24.00 | 49.00 | 25.00 |
| MSSFA | 38 | 16.32 | 3.88 | 5.00 | 20.00 | 15.00 |
| MSSFR | 37 | 16.22* | 3.82 | 7.00 | 20.00 | 13.00 |
| CPEER | 38 | 36.60 | 6.94 | 18.00 | 48.00 | 30.00 |
| CSSFR | 38 | 12.18 | 5.56 | 0.00 | 19.00 | 19.00 |
| CAR | 37 | 24.97 | 2.84 | 15.00 | 28.00 | 13.00 |
| CPC | 37 | 16.78* | 3.01 | 12.00 | 26.00 | 14.00 |
| CFC | 37 | 22.14 | 2.28 | 17.00 | 27.00 | 10.00 |

* Differs from Black subjects at $p < 0.05$

Table 13

Means of Criterion and Predictor Variables: Black Subjects

| Variable | N | Mean | Std Dev | Min | Max | Range |
|---|---|---|---|---|---|---|
| ZPREF | 30 | -0.13 | 1.41 | -3.60 | 1.94 | 5.55 |
| MFIND | 29 | 47.00 | 8.86 | 21.00 | 61.00 | 40.00 |
| MMIND | 30 | 46.37 | 9.26 | 25.00 | 62.00 | 37.00 |
| MFACC | 29 | 40.79 | 7.03 | 27.00 | 50.00 | 23.00 |
| MMACC | 30 | 41.40 | 5.72 | 30.00 | 50.00 | 20.00 |
| MFIDEAL | 29 | 22.28* | 6.09 | 10.00 | 35.00 | 25.00 |
| MMIDEAL | 30 | 22.27* | 5.36 | 11.00 | 34.00 | 23.00 |
| MPEER | 30 | 37.23 | 9.25 | 18.00 | 50.00 | 32.00 |
| MSSFA | 30 | 14.40 | 5.22 | 3.00 | 20.00 | 17.00 |
| MSSFR | 30 | 12.93* | 5.34 | 3.00 | 20.00 | 17.00 |
| CPEER | 30 | 37.03 | 7.31 | 20.00 | 50.00 | 30.00 |
| CSSFR | 30 | 11.20 | 4.40 | 3.00 | 18.00 | 15.00 |
| CAR | 30 | 25.77 | 1.96 | 22.00 | 29.00 | 7.00 |
| CPC | 30 | 22.17* | 2.56 | 18.00 | 28.00 | 10.00 |
| CFC | 37 | 22.14 | 2.28 | 17.00 | 27.00 | 10.00 |

* Differs from White subjects at $p < 0.05$

Table 14

Means of Criterion and Predictor Variables: Mother-child Pairs with Maternal Education = High School

| Variable | N | Mean | Std Dev | Min | Max | Range |
|---|---|---|---|---|---|---|
| ZPREF | 16 | -0.42 | 1.27 | -3.60 | 1.17 | 4.78 |
| MFIND | 16 | 42.94 | 11.50 | 18.00 | 61.00 | 43.00 |
| MMIND | 16 | 43.88 | 8.39 | 32.00 | 58.00 | 26.00 |
| MFACC | 16 | 34.31** | 7.53 | 20.00 | 45.00 | 25.00 |
| MMACC | 16 | 38.69 | 6.99 | 27.00 | 49.00 | 22.00 |
| MFIDEAL | 16 | 18.75 | 8.44 | 8.00 | 35.00 | 27.00 |
| MMIDEAL | 16 | 19.62 | 6.41 | 7.00 | 33.00 | 26.00 |
| MPEER | 16 | 32.38** | 8.35 | 18.00 | 47.00 | 29.00 |
| MSSFA | 16 | 12.00** | 4.58 | 3.00 | 18.00 | 15.00 |
| MSSFR | 15 | 10.13** | 5.27 | 5.00 | 19.00 | 14.00 |
| CPEER | 16 | 37.12 | 8.18 | 18.00 | 50.00 | 32.00 |
| CSSFR | 16 | 11.00 | 5.28 | 2.00 | 18.00 | 16.00 |
| CAR | 16 | 25.50 | 2.45 | 22.00 | 29.00 | 7.00 |
| CPC | 16 | 19.50* | 4.03 | 13.00 | 27.00 | 14.00 |
| CFC | 16 | 22.75 | 2.18 | 19.00 | 26.00 | 7.00 |

* Differs from Graduate School group at $p < 0.05$

** Differs from College and Graduate School groups at $p < 0.05$

Table 15

Means of Criterion and Predictor Variables: Mother-child Pairs with Maternal Education = College

| Variable | N | Mean | Std Dev | Min | Max | Range |
|---|---|---|---|---|---|---|
| ZPREF | 32 | -0.07 | 1.28 | -2.19 | 2.52 | 4.71 |
| MFIND | 31 | 48.77 | 7.12 | 36.00 | 63.00 | 27.00 |
| MMIND | 32 | 44.88 | 10.89 | 21.00 | 65.00 | 44.00 |
| MFACC | 31 | 42.77* | 5.73 | 30.00 | 50.00 | 20.00 |
| MMACC | 32 | 40.94 | 8.11 | 20.00 | 50.00 | 30.00 |
| MFIDEAL | 31 | 19.74 | 4.92 | 11.00 | 29.00 | 18.00 |
| MMIDEAL | 32 | 19.06 | 5.34 | 8.00 | 28.00 | 20.00 |
| MPEER | 30 | 38.67* | 6.92 | 24.00 | 50.00 | 26.00 |
| MSSFA | 32 | 15.81* | 4.73 | 3.00 | 20.00 | 17.00 |
| MSSFR | 32 | 15.81* | 3.81 | 3.00 | 20.00 | 17.00 |
| CPEER | 32 | 36.94 | 7.19 | 20.00 | 48.00 | 28.00 |
| CSSFR | 32 | 11.00 | 4.98 | 0.00 | 18.00 | 18.00 |
| CAR | 31 | 25.10 | 2.69 | 15.00 | 28.00 | 13.00 |
| CPC | 31 | 18.45 | 3.34 | 12.00 | 26.00 | 14.00 |
| CFC | 31 | 21.84 | 2.54 | 17.00 | 27.00 | 10.00 |

* Differs from High School group at $p < 0.05$

Table 16

Means of Criterion and Predictor Variables: Mother-child Pairs with Maternal Education = Graduate School

| Variable | N | Mean | Std Dev | Min | Max | Range |
|---|---|---|---|---|---|---|
| ZPREF | 21 | 0.39 | 1.60 | -2.42 | 2.43 | 4.85 |
| MFIND | 21 | 49.05 | 10.13 | 28.00 | 64.00 | 36.00 |
| MMIND | 21 | 49.52 | 9.65 | 27.00 | 61.00 | 34.00 |
| MFACC | 21 | 40.67* | 9.04 | 19.00 | 50.00 | 31.00 |
| MMACC | 21 | 39.43 | 9.28 | 20.00 | 50.00 | 30.00 |
| MFIDEAL | 21 | 18.24 | 6.96 | 7.00 | 33.00 | 26.00 |
| MMIDEAL | 21 | 16.76 | 6.33 | 8.00 | 34.00 | 26.00 |
| MPEER | 21 | 39.95* | 8.25 | 24.00 | 50.00 | 26.00 |
| MSSFA | 21 | 17.00* | 3.94 | 5.00 | 20.00 | 15.00 |
| MSSFR | 21 | 16.43* | 3.70 | 7.00 | 20.00 | 13.00 |
| CPEER | 21 | 36.81 | 6.44 | 26.00 | 48.00 | 22.00 |
| CSSFR | 21 | 13.62 | 4.72 | 3.00 | 19.00 | 16.00 |
| CAR | 21 | 25.52 | 2.27 | 18.00 | 28.00 | 10.00 |
| CPC | 21 | 16.57* | 2.48 | 14.00 | 23.00 | 9.00 |
| CFC | 21 | 22.24 | 2.30 | 19.00 | 28.00 | 9.00 |

* Differs from High School group at $p < 0.05$

In addition to their hypothesized relationships with the criterion variable (children's standardized social preference scores) it seemed likely that correlations would exist among the predictor variables. Although specific predictions were not made regarding relationships among predictor variables, the complete correlation matrix is presented below, as the correlations provide some interesting supplemental information (Table 17). The correlation matrix includes children's standardized social preference scores and all predictor variables considered in this study (see Table 5 for a description of each variable).

Table 17

Correlation Matrix: Criterion and Predictor Variables

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CR | -.06 | .08 | .18 | .13 | .03 | -.00 | **.29** | **.27** | **.36** | **.34** | **.28** | .07 | .06 | -.08 |
| 1 | | **.56** | **.53** | **.32** | **.26** | -.03 | **.28** | **.33** | .09 | -.03 | .03 | -.06 | -.11 | -.22 |
| 2 | | | **.47** | **.53** | .16 | .12 | **.33** | **.41** | **.30** | .12 | .01 | .11 | .01 | .01 |
| 3 | | | | **.48** | **.45** | .14 | **.48** | **.43** | **.37** | .20 | .12 | .19 | -.02 | .03 |
| 4 | | | | | .14 | **.40** | **.45** | **.29** | .09 | **.24** | .07 | .07 | **.29** | .10 |
| 5 | | | | | | **.49** | .16 | .16 | -.05 | .06 | .05 | .16 | **.33** | -.04 |
| 6 | | | | | | | .16 | .08 | -.20 | .07 | .00 | **.24** | **.42** | -.09 |
| 7 | | | | | | | | **.62** | **.46** | .21 | .18 | .17 | -.19 | -.13 |
| 8 | | **BOLD** items are | | | | | | | **.51** | .08 | -.03 | .11 | .02 | -.12 |
| 9 | | significant at | | | | | | | | -.00 | .05 | .01 | -.14 | -.04 |
| 10 | | $p < 0.05$ | | | | | | | | | **.59** | **.27** | -.14 | -.02 |
| 11 | | | | | | | | | | | | **.37** | -.20 | -.01 |
| 12 | | | | | | | | | | | | | .03 | -.11 |
| 13 | | | | | | | | | | | | | | .23 |

Criterion: ZPREF (Children's standardized social preference scores)

Predictors (see Table 5 for description of predictor variables):

| | | | | |
|---|---|---|---|---|
| 1 MFIND | 4 MMACC | 7 MPEER | 10 CPEER | 13 CPC |
| 2 MMIND | 5 MFIDEAL | 8 MSSFA | 11 CSSFR | 14 CFC |
| 3 MFACC | 6 MMIDEAL | 9 MSSFR | 12 CAR | |

Standardized social preference scores

The criterion variable (children's standardized social preference scores) is listed on the first row of the correlation matrix (CR) and was positively correlated with five of the predictor variables, and uncorrelated with all others. Correlations were strongest between the criterion variable and MSSFR (variable 9, $p = 0.003$) and CPEER (variable 10, $p = 0.005$). Modest correlations existed between the criterion variable and MPEER (variable 7, $p = 0.017$), MSSFA (variable 8, $p = 0.027$), and CSSFR (variable 11, $p = 0.019$).

Mothers' relationship variables

The first seven variables listed after the criterion variable in the correlation matrix are the scale scores from the Mother-Father-Peer Scale, completed by the mothers. It is clear that high correlations exist among many of these scales, and this is not particularly surprising. It is interesting to note that mothers' reports of childhood acceptance by peers as assessed by this measure (MPEER, variable 7) were positively correlated with descriptions of their parents as accepting and independence-encouraging (MFIND, MMIND, MFACC, MMACC; variables 1-4), but were unrelated to idealization of the parents. Mothers' reports of childhood acceptance by peers were also positively correlated with their reports of current social support from family (MSSFA, variable 8) and friends (MSSFR, variable 9).

MSSFA and MSSFR were also positively correlated with each other.

Mothers' current sense of social support from their families (MSSFA, variable 8) was similar to MPEER in its correlational pattern; it was found to be correlated with reports of parents who were accepting and independence-encouraging during childhood, and uncorrelated with idealization of parents. MSSFR did not quite follow this pattern, however, demonstrating a strong correlation with childhood acceptance by father (MFACC, variable 3), but not by mother (MMACC, variable 4), and a modest correlation with childhood encouragement of independence by mother (MMIND, variable 2), but not by father (MFIND, variable 1).

Children's relationship variables

Children's reports of acceptance by peers (CPEER, variable 10) were strongly correlated with their reports of social support from friends (CSSFR, variable 11), in addition to the strong correlation with their actual social preference scores (CR), described above. Modest correlations also existed between CPEER and mothers' childhood acceptance by their own mothers (MMACC, variable 4) and the child's current sense of acceptance by his/her own mother (CAR, variable 12). The children's reports of social support from friends (CSSFR, variable 11) were also highly correlated with their reports of a sense of acceptance by their mothers (CAR, variable 12).

In addition to the two correlations just reported, CAR was also modestly correlated with mothers' idealization of their own mothers (MMIDEAL, variable 6). Children's reports of their mothers tendency to be psychologically controlling (versus encouraging psychological autonomy) were highly correlated with mother's idealization of each of their own parents (MMIDEAL, variable 6 and MFIDEAL, variable 5), and modestly correlated with mother's reports of acceptance by their own mothers (MMACC, variable 4). Children's views of their mothers as exerting firm and consistent versus lax and inconsistent disciplinary control were uncorrelated with all other measures included in this study.

Factor Analysis

Due to the relatively large number of predictor variables under consideration in this study, a principal components factor analysis and varimax rotation were performed on the entire set of 14 predictor variables. Table 5 lists the variables entered into the factor analysis, and Table 18 presents the results of the factor analysis and varimax rotation. Only factors with an eigenvalue greater than or equal to 1.00 were retained. These analyses produced five factors and confirmed that the predictor variables formed clear-cut and theoretically meaningful factors.

Factor 1, referred to as Mother's Family of Origin, is composed of five of the scale scores from the Mother-Father-Peer Scale. These scores reflect the extent to which a

mother views her own mother and father as having been accepting of her (MMACC, MFACC) and having encouraged her efforts to become independent (MMIND, MFIND), and the extent to which she idealizes her father (MFIDEAL). Factor 2, referred to as Mother's Social Support is composed of the mothers' scores on the Social Support from Family (MSSFA) and Social Support from Friends (MSSFR) measures, and their scores on the "Peer" scale of the Mother-Father-Peer Scale (MPEER).

Factor 3, referred to as Idealism, is composed of three scores from the Mother-Father-Peer Scale which reflect the extent to which mothers idealize their own mother and father (MMIDEAL, MFIDEAL) and report having felt accepted by their mother(MMACC), and one scale score from the Children's Report of Parent Behavior Inventory which reflects the child's view of the extent to which his mother uses psychological control in their relationship (as opposed to encouraging psychological autonomy) (CPC).

Factor 4, referred to as Child's Social Support is composed of the child's scores on the "Peer" scale of the Mother-Father-Peer Scale (CPEER), the Social Support from Friends scale (CSSFR), and a scale of the CRPBI that assesses the child's sense of acceptance by his mother (CAR). Factor 5, referred to as Discipline, is composed of a single scale score from the CRPBI which reflects the extent to which a child views his mother as utilizing firm and

consistent versus lax and inconsistent disciplinary control (CFC).

Table 18

Factor Analysis of Predictor Variables

| Variable | Factor 1 | Factor 2 | Factor 3 | Factor 4 | Factor 5 |
|---|---|---|---|---|---|
| | Mother's Family of Origin | Mother's Social Support | Idealism | Child's Social Support | Discipline |
| MFIND | **0.88822** | 0.05460 | -0.09171 | -0.10740 | -0.23294 |
| MMIND | **0.68591** | 0.36099 | 0.12491 | -0.02486 | 0.17765 |
| MFACC | **0.73947** | 0.29812 | 0.08882 | 0.25051 | 0.01144 |
| MMACC | **0.50802** | 0.30814 | **0.44687** | 0.12455 | 0.29299 |
| MFIDEAL | **0.41054** | -0.05639 | **0.60068** | 0.08472 | -0.21629 |
| MMIDEAL | 0.04343 | 0.03264 | **0.86203** | 0.10915 | -0.15014 |
| MPEER | 0.27459 | **0.73894** | 0.06265 | 0.25488 | -0.07409 |
| MSSFA | 0.24564 | **0.79516** | 0.11420 | -0.05562 | -0.14218 |
| MSSFR | 0.06277 | **0.79328** | -0.24762 | -0.00438 | 0.04905 |
| CPEER | 0.10817 | 0.02268 | -0.00058 | **0.82074** | 0.15771 |
| CSSFR | 0.05287 | -0.00079 | -0.13447 | **0.87417** | -0.03068 |
| CAR | -0.09878 | 0.14399 | 0.30588 | **0.60020** | -0.20128 |
| CPC | -0.09520 | -0.12304 | **0.72143** | -0.19175 | 0.29939 |
| CFC | -0.03046 | -0.09121 | -0.04106 | 0.00626 | **0.89148** |

## Multiple regression analyses

### Total sample

Multiple regression analysis was utilized to evaluate the relationship between children's standardized social preference scores (the criterion variable) and the factors described above. As noted above, several hypothetical models were considered feasible. One model suggests that the mother's representation of attachment relationships (based largely on her own childhood attachment experiences) exerts an influence on the character of her relationship with her child, and the child's experience in the mother-child relationship influences his/her competence with peers.

A second possibility is that the quality of the mother's current and/or childhood peer relationships predict her child's peer competence. A third possibility is that the quality of the child's peer relationships is primarily influenced by the child's own view of social relationships (and not exclusively or primarily by the mother-child relationship). Finally, the quality of children's peer relationships may be influenced by a combination of factors from several of these models, or, alternatively may be relatively independent of their general views of social relationships, the quality of their relationships with their mothers and of the quality of the mother's relationship history.

The initial analysis included maternal education, gender, race, and the five factor scores as predictor variables with the children's standardized sociometric scores as the criterion variable. Factor scores were created by multiplying the component variables by their respective weights and summing them. In order to control for the potential effects of the demographic variables, maternal education, gender, and race were entered into the regression equation first, and then the five factors were evaluated using a stepwise procedure in which the variable that accounts for the greatest proportion of the variance in the criterion variable is entered first, the variable accounting for the second greatest proportion of the variance is entered second, and so on, until none of the remaining predictor variables would significantly improve the ability of the model to account for variability in the criterion variable if entered into the regression equation.

The three demographic variables, maternal education, gender and race, accounted for just under six percent of the variance in children's standardized social preference scores ($R^2 = 0.0597$, $F = 1.27$, $p = 0.2925$). After accounting for the variance attributable to the demographic variables, two of the five factors accounted for significant portions of the variance in children's standardized social preference scores. The first factor entered into the regression equation was Factor 2, Mother's Social Support, which

includes the variables MSSFA, MSSFR, and MPEER (partial $R^2$ = 0.1242, F = 8.98, p = 0.0040). The second factor entered into the regression equation was Factor 4, Child's Social Support, which includes the variables CPEER, CSSFR, and CAR (partial $R^2$ = 0.0632, F = 4.8722, p = 0.0313). These two factors thus accounted for approximately 12 percent and 6 percent, respectively, of the total variance in children's standardized social preference scores after controlling for the demographic variables. Collectively, these two variables accounted for approximately 18.7% of the variance in the standardized social preference scores, and when the demographic variables were included the complete model accounted for approximately 24.7% of the variance in children's standardized sociometric scores ($R^2$=0.2472, F = 3.81, p = 0.004).

Bivariate correlation revealed no association between Factor 2 and Factor 4 (R = 0.1619, p = 0.1977), and these two factor scores do not contain any variables in common. The three remaining factor scores each would have accounted for less than two percent of the variance in the criterion variable if added to the model, and therefore none of the remaining factor scores was entered into the final regression equation.

Demographic groups

In order to explore further the potential differences among the demographic groups in the relationship between the factor scores and children's standardized social preference scores, separate regression analyses were run for each level of maternal education, gender and race (see Tables 19-21). These analyses were somewhat less powerful than the original multiple regression due to the substantial reduction in the number of subjects included in each analysis when the sample was divided based on demographic variables.

When the demographic variables gender and maternal education were controlled and separate stepwise regressions were performed for white subjects and black subjects (Table 19), Factor 4 and Factor 2 were significant predictors of white children's standardized sociometric preference scores. Only Factor 2 predicted black children's scores under these conditions.

Controlling race and maternal education, and performing separate stepwise regressions for mother-child pairs in which the child was a boy, and mother-child pairs in which the child was a girl (Table 20), revealed that Factor 4 and Factor 2 were significant predictors for girls. None of the factors added to the predictive power of race and maternal education for boys .

When separate regressions were performed for the three levels of maternal education, with race and gender

controlled (Table 21), Factor 4 emerged as a significant predictor of standardized social preference scores for children whose mothers had attended graduate school. None of the factors added to the predictive power of race and gender for children whose mother attended only high school or only high school and college.

Table 19

Multiple Regressions for Demographic Groups: Race

Group: White subjects (N = 34)

Variables controlled: Gender and maternal education

| Significant Predictors | Partial $R^2$ | F | p |
|---|---|---|---|
| Factor 4 | 0.1724 | 6.79 | 0.0141 |
| Factor 2 | 0.0696 | 2.92 | 0.0984 |

Group: Black subjects (N = 29)

Variables controlled: Gender and maternal education

| Significant Predictors | Partial $R^2$ | F | p |
|---|---|---|---|
| Factor 2 | 0.1523 | 4.77 | 0.0385 |

Table 20

Multiple Regressions for Demographic Groups: Gender

Group: Boys and their mothers (N = 27)

Variables controlled: Race and maternal education

| Significant Predictors | Partial $R^2$ | F | p |
|---|---|---|---|
| None | ... | ... | ... |

Group: Girls and their mothers (N = 37)

Variables controlled: Race and maternal education

| Significant Predictors | Partial $R^2$ | F | p |
|---|---|---|---|
| Factor 4 | 0.2518 | 11.38 | 0.0019 |
| Factor 2 | 0.0760 | 3.72 | 0.0628 |

Table 21

Multiple Regressions for Demographic Groups: Maternal Education

Group: Maternal education = high school (N = 15)

Variables controlled: Race and gender

| Significant Predictors | Partial $R^2$ | F | p |
|---|---|---|---|
| None | ... | ... | ... |

Group: Maternal education = college (N = 28)

Variables controlled: Race and gender

| Significant Predictors | Partial $R^2$ | F | p |
|---|---|---|---|
| None | ... | ... | ... |

Group: Maternal education = graduate school (N = 21)

Variables controlled: Race and gender

| Significant Predictors | Partial $R^2$ | F | p |
|---|---|---|---|
| Factor 4 | 0.2029 | 5.05 | 0.0383 |

Discriminant Function Analysis

In order to compare the results when social preference is represented as a continuous variable with the results using the more traditional categorical representation, a stepwise discriminant function analysis was performed. This analysis was considered especially important given the "gaps" in the continuous variable (ZPREF, children's standardized social preference scores) created by the use of the traditional sociometric categories in the subject selection process. The criteria used for categorical assignment create a gap of one quarter of a standard deviation in standardized social preference scores between the Rejected and Average children, and another between the Average and Popular children.

For the purposes of the discriminant function analysis, the Popular and Average status groups were combined and considered "Accepted" and the Rejected category was retained. This decision was based on the greater theoretical relevance of discriminating the Rejected children from the others, and because one reason for retaining the categorical classification system is that there may be qualitative, as opposed to purely quantitative, differences between the Rejected group and all of the more accepted children.

The results of the discriminant function analysis are presented in Table 22. As in the regression analyses above, the demographic variables were entered first, and then the

factor scores were evaluated in a stepwise manner. The results were analogous to those produced by the regression analysis. After controlling for the discriminative power of the demographic variables, Factor 2 and Factor 4 contributed significantly to the prediction of children's sociometric status (Accepted or Rejected). These two factor scores, combined with the demographic variables, correctly classified 72.7 percent of the Accepted children and 70.0 percent of the Rejected children. When the demographic variables were not included, i.e., when only the two factors are used as predictors, 65.9 percent of the Accepted children and 75.0 percent of the Rejected children were correctly classified. In terms of numbers of "hits" and "misses," including the demographic variables as predictors in addition to Factor 2 and Factor 4 resulted in correct classification of three additional Accepted children but also resulted in the misclassification of one additional Rejected child. The difference in the predictive power of the model with and without the demographic variables is thus quite marginal.

Table 22

Discriminant Function Analyses

Predicting sociometric status from:

Race / Gender / Maternal Education / Factor 2 / Factor 4

| From Group | Number of Observations and Percent Classified into Group | |
|---|---|---|
| | Accepted | Rejected |
| Accepted | 32 / 72.7 | 12 / 27.3 |
| Rejected | 6 / 30.0 | 14 / 70.0 |

Predicting sociometric status from:

Factor 2 / Factor 4

| From Group | Number of Observations and Percent Classified into Group | |
|---|---|---|
| | Accepted | Rejected |
| Accepted | 29 / 65.9 | 15 / 34.1 |
| Rejected | 5 / 25.0 | 15 / 75.0 |

# CHAPTER IV

# DISCUSSION

In order to investigate three possible models of association between the quality of children's peer relationships and a number of social and family variables, a group of predictor variables and third grade children's standardized social preference scores were examined by means of factor, multiple regression, and discriminant function analyses. The predictor variables included mothers' representations of several aspects of their childhood peer and attachment relationships, mothers' perceptions of their current level of social support from family and from friends, and children's perceptions of the quality of their relationships with their mother and their peers (see Table 5 for a list of variables and the associated measures).

It was found that two factors accounted for a significant proportion of the variance in the criterion variable (children's standardized social preference scores / sociometric status) after accounting for the variance attributable to the demographic variables. Factor 2, Mother's Social Support, includes the variables MSSFA (mother's social support from family), MSSFR (mother's social support from friends, and MPEER (mother's childhood

acceptance by peers). This factor accounted for approximately 12 percent of the variance in children's standardized social preference scores (partial $R^2$ = 0.1242, F = 8.98, p = 0.0040). Factor 4, Child's Social Support, includes the variables CPEER (child's perception of acceptance by peers, CSSFR (child's perception of social support from friends), and CAR (child's perception of acceptance by mother). This factor accounted for approximately six percent of the variance in children's standardized social preference scores (partial $R^2$ = 0.0632, F = 4.8722, p = 0.0313). These two factors thus accounted for approximately 18.7 percent of the variance in social preference scores after controlling for the demographic variables. When the demographic variables were included, the complete model accounted for approximately 24.7% of the variance in children's standardized sociometric scores ($R^2$=0.2472, F = 3.81, p = 0.004).

Separate regression analyses for each demographic group also supported the importance of these two factors. Although this group of analyses did add evidence for the general importance of the two factors defined above, both factors were not predictive for every demographic group, and for some groups no factor added to the predictive power of the remaining demographic variables (e.g., no factors contributed to the prediction of standardized social preference scores for boys after controlling for the effects

of gender and race). It does seem significant, however, that these factors did have predictive power for a number of the demographic groups despite the necessary reduction in number of observations used in each analysis. It is also noteworthy that, as in the original regression, none of the other three factors emerged as predictors.

The results of the discriminant function analyses were also consistent with the original regression analysis. Factor 2 and Factor 4 significantly contributed to the prediction of social status after controlling for the demographic variables. In fact, there was little difference in the predictive power of the model with or without the demographic variables. In either case, the model was far from perfect, with the percentage of children misclassified ranging from approximately 25 to 34.

Taken together, these results are consistent with a model of social development in which the quality of a child's peer relationships (as indexed by standardized social preference scores or sociometric status) is not directly influenced by the quality of his/her relationship with his/her mother, but rather is related to the mother's perception of her own social support in relationships as adequate and fulfilling. Mechanisms such as modeling and direct teaching might explain this relationship. A child whose mother has supportive relationships which she values is likely to observe and imitate his/her mother's behavior

in social situations, and such a mother also seems likely to provide direct instruction on how to make and keep friends. In addition, it seems likely that a broader set of values that underlie such a mother's appreciation of relationships is likely to be communicated to the child across a range of situations, increasing the probability that he/she will adopt similar values.

It is also possible that a scores on Factor 2 (mother's social support) serve as an index to the social climate of the family, with higher scores associated with parents who are more open and socially involved with persons outside their own immediate household, and who perhaps have better coping skills and resources for managing stress, resulting in a general facilitation of their ability to parent appropriately and consistently.

In a broader theoretical context, these results are consistent with a conceptualization of peer and family relationships as related loosely through the process of social development, as opposed to sharing a more direct relationship such as "maternal precursor" models might suggest. The fact that a child's perception of his/her own social support (Factor 4) is related to his/her actual peer status (standardized social preference score) may only mean that a significant proportion of children can accurately describe the quality of their peer relationships, but it seems likely that their views of their peer relationships

influence the quality of those relationships and vice versa.

The fact that Factor 2 and Factor 4 each predict peer status, but are not correlated with each other indicates that these two predictors operate independently of each other. Thus, what mothers and children each say about their own social support and relationships predicts the child's peer status, but the mother's and children's descriptions of their relationships do not covary. The lack of correlation between Factor 2 and Factor 4 also strongly suggests that Factor 4 does not merely represent another measure of sociometric status, because if this were the case one would expect scores on Factor 2 to predict scores on Factor 4.

It seems likely that the results of this study,at least in part, reflect the fact that these children, most of whom were nine years old at the time of the study, have reached an age when peer relationships have taken on a definite life of their own. Certainly family characteristics (perhaps perceptions of social support) must continue to exert an influence on some characteristics of the child that, in turn, influence social relationships with peers, but by this age the child has developed a distinct and unique personal style of interacting with peers, and has had a wide range of social experiences outside the realm of the mother-child relationship. By the time a child reaches third grade, it also seems likely that variables such as academic success, athletic skill, and physical attractiveness are beginning to

play a more important role than in earlier childhood.

With the exception of the peer nomination procedure, the measures utilized in this study were all self-report, and some of the information obtained from the mothers emphasized retrospective reporting. Although such methods are always open to criticism, it seems that what may be most important when exploring constructs such as working models of relationships is an individual's perceptions (or memories) of situations and relationships, as opposed to some more objective measure of the actual events or relationships.

In conclusion, it seems that although we cannot rule out the possibility that earlier in these children's development a close relationship between mothers' representations of their relationship histories and children's peer relationships may have existed, it is clear that by the time these children completed the third grade any such effects, as indexed by the measures chosen in this study, had been overpowered by other factors. As Levitt (1991) succinctly states,

> ...given that relationship formation is likely to be an overdetermined phenomenon, it may be that long-term adverse relationship outcomes occur only when early relationships are uniformly negative. (p. 192)

It is possible that the continuity between children's peer relationships and mothers' representations of their own

relationship histories often reported in primary attachment samples being followed longitudinally reflects on some particular aspect of those samples and is not generalizable to samples of children identified through other methods. It is also possible that a longitudinal or cross-sectional sample, especially one that included children at much younger ages, might have produced quite different results, and would help to clarify changes in the relationships among these variables that may occur with normal development.

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