High levels of self-esteem (the individual's assessment of self-worth) have been associated with a variety of positive child outcomes, while low levels of self-esteem have been related to problems in child growth and development. The purpose of this study was to explore the relationship between specific child temperament and parenting behaviors to the child's self-esteem. More specifically it determined the relationship between child quality of mood, child adaptability, maternal responsiveness, maternal reasoning guidance, child gender, and family socioeconomic status with the child's perceived competence and social acceptance. The interactive effects of child quality of mood x maternal responsiveness and child adaptability x maternal
reasoning guidance were also explored.

The sample for this study consisted of 45 preschool children and their mothers. The children were enrolled in the O.S.U. Child Development Center and the L.B.C.C. Family Resource Center. Mothers completed a questionnaire consisting of an adaptation of the Parent Temperament Questionnaire for Children (Thomas, Chess, & Korn, 1977), an adaptation of the Iowa Parent Behavior Inventory (Crase, Clark, & Pease, 1979), and descriptive information. Children were assessed for self-esteem using Harter and Pike's Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (1984).

The analyses consisted of the following: descriptive statistics of all variables, a correlation matrix using all variables, univariate and hierarchical regressions between the independent variables and perceived competence and social acceptance, and regression analyses to test for interactive effects of the selected independent variables against perceived competence and social acceptance. Results revealed these significant findings: maternal responsiveness positively correlated with social acceptance; child adaptability negatively correlated with social acceptance; positive interaction effects were demonstrated between child quality of mood x maternal
responsiveness and child adaptability against social acceptance; negative interaction effects were revealed between child adaptability x maternal reasoning guidance against social acceptance; also, child adaptability x maternal reasoning guidance with maternal responsiveness significantly predicted greater social acceptance. No significant relationships were found with perceived competence. This study supported the expectation that specific child temperament characteristics interacted with particular parenting behaviors to affect the development of positive child self-esteem.
The Relationship of Child Temperament and Maternal Behavior to the Child's Self-Esteem

by

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THE RELATIONSHIP OF CHILD TEMPERAMENT
AND MATERNAL BEHAVIOR TO THE CHILD'S SELF-ESTEEM

Introduction

Self-esteem is the individual's assessment of self-worth (Allport, 1955; Epstein, 1980; James, 1907; Rogers, 1951). High levels of self-esteem have been associated with a variety of positive outcomes such as greater school achievement (Coopersmith, 1967), more positive affective or mood states (Coopersmith, 1967), high levels of curiosity and creativity (Coopersmith, 1967; Felkner, 1974), and independent and internal regulated functioning (Givelber, 1983). On the other hand, low levels of self-esteem have been associated with behavior problems (Barron & Earl, 1982; Coopersmith, 1967), high anxiety (Coopersmith, 1967; Felkner, 1974; Rogers, 1951), psychological disturbances (Wylie, 1977), and avoidance of personal relationships (Wylie, 1977). High levels of self-esteem appear to be necessary for healthy and happy human development.

All experience and influences, both environmental and biological, contribute to the child's development (Epstein, 1980). While environmental effects on self-esteem have been explored, biological predispositions to the development of high self-esteem have apparently been ignored. Child temperament has been suggested as a
possible source of child behavior outcomes (Thomas & Chess, 1977). Temperament is one biological aspect of a child which has been shown to affect parent behaviors (Belsky, 1984; Lewis & Rosenblum, 1974; Million, 1978; Thomas & Chess, 1977). Research on parent-child attachment describes this interaction (Bretherton & Waters, 1985; Cassidy, 1988). There is, however, a paucity of research available which examines the relationship between child temperament and self-esteem.

Parent behaviors have frequently been related to child self-esteem (Baumrind, 1971; Belsky, Lerner, & Spanier, 1984; Coopersmith, 1967; Epstein, 1980; Felkner, 1974; Rogers, 1971; White, 1975). Belsky (1984) proposed that parent behaviors serve as a buffering system between many factors such as child gender and socioeconomic status, and the child's self-esteem. He stated that many variables affect parent behaviors including personal and psychological resources, child characteristics, and contextual sources of stress and support. The way parents adjust to these variables is evidenced in their behaviors toward their children.

Parent behaviors have generally been measured in terms of "Restrictive/Permissive" (Becker, 1964) or, "Authoritarian/ Authoritative/Permissive" (Baumrind, 1971) behaviors. These styles have been characterized by grouping expected parenting behaviors with each style.
This method has been used as a measure of over-all parent-child interaction, but fails to grasp the particular parent behaviors which encourage the development of specific child outcomes such as self-esteem.

Epstein's Integrated Theory of Personality (1980) provides a framework for understanding the interrelated role of many factors in the child's development of self-esteem. Epstein describes self-esteem as being a major postulate in the hierarchy of minor and major postulates which make up the self-concept (the global sense of the self). Experience provides the cues from which the child extracts postulates or opinions about the self. Biological aspects, such as temperament and gender, affect the development of self-esteem depending on their goodness-of-fit with the environment. The environment provides cues about this "fit" through experiences with both the physical surroundings and significant people, such as parents. According to Epstein, both biological and environmental variables in this interrelated way, assist in the development of self-esteem.

In view of the above considerations, this study researched the combined effects of specific child temperament characteristics, specific parent behaviors, child gender and family socioeconomic status, and their relationship to the child's self-esteem. The multiple effects of these variables were examined as they
related to child competence and social acceptance, precursors to self-esteem (Harter & Pike, 1984).

This information may help to improve our understanding about the need for a goodness-of-fit between parental expectations and practices, and child temperament traits. Early Childhood Educators and Family Therapists may find this kind of information useful in dealing with parental concern and guilt when child behavior deviates from expectations of normal and optimal behavior.

Definition of Variables

1. **Temperament** referred to individual differences in the parameters of behavioral expressions of emotionality. More specifically, temperament involved the threshold, degree, and duration of behaviors (Thomas & Chess, 1977). Examples of temperament-related behaviors included dispositions to cry, smile, become irritable, or to be adaptable or nonadaptable (Campos et al., 1983; Thomas & Chess, 1977). The behaviors themselves were of less importance in assessing temperament than the individual's disposition to display them. An individual's temperament was thought to be a biologically based aspect of the personality (Campos et al., 1983; Thomas & Chess, 1977). It was considered to be a stable quality across situations and development (Buss & Plomin,
The temperament characteristics assessed in this study included quality of mood and adaptability.

(a) **Quality of mood** was the number of positive behaviors as contrasted with negative behaviors displayed by a child (Thomas & Chess, 1977). These behaviors included pleasant, joyful, and friendly behaviors, or unpleasant, crying and unfriendly behaviors. Mood characteristics refered to the kind and amount of affect a child displayed (Coopersmith, 1967).

(b) **Adaptability** was the child's responses to new or altered situations (Thomas & Chess, 1977). This characteristic involved the ease with which the child could adjust to a new situation regardless of its nature.

2. **Parenting behaviors** refered to the specific actions the parent performed in relation to the child (Becker, 1964). The parenting behaviors addressed in this study included maternal responsiveness and reasoning guidance.

(a) **Maternal responsiveness** described parenting behaviors such as responding promptly to the child's expressions of need. While timeliness was an important characteristic, maternal responsiveness also involved responding to the child's implied need regardless of the immediacy of the need (Crase, Clark, & Pease, 1979).

(b) **Reasoning guidance** described behaviors performed by mothers who attempted to reason with their
children to help them learn acceptable behavior (Crase, Clark, & Pease, 1979). Mothers discussed reasons why behaviors were acceptable or unacceptable. In addition, mothers who used reasoning guidance also supported the child's emotional expression and showed consideration of their own and the child's reasons for specific behaviors. Reasoning guidance included firm but responsive discipline practices rather than strict rule enforcement (Baumrind, 1971).

3. **Self-esteem** referred specifically to the individual's feelings of worth (Allport, 1955; Epstein, 1980; Mack & Ablon, 1985; Rogers, 1951). As part of the self-concept (the individual's global evaluation of who he or she is), self-esteem referred to the individual's assessment of the self in all dimensions (Epstein, 1980; James, 1907; Mack & Ablon, 1985). The development of self-esteem has been considered by many to be one of the central developmental tasks of childhood (Allport, 1955; Epstein, 1980; Mack & Ablon, 1985; Sullivan, 1953). Self-esteem was the individual's reference point for evaluation and decision-making concerning life events (Lecky, 1969; Rogers, 1951). Harter and Pike (1984) have suggested that self-esteem was a combination of how well children felt they performed and how well accepted they feel they were.

Child self-esteem was assessed in this study through the following precursors of self-esteem:
(a) Perceived Competence was the child's perception of his or her abilities in physical and cognitive domains (Harter & Pike, 1984); and,

(b) Social Acceptance referred to the child's perceptions of being accepted by his or her mother and peers (Harter & Pike, 1984).
Literature Review

Historically the roles of heredity and environment have been considered important influences on the development of self-esteem in young children. A controversy existed which attempted to present child behaviors as the outcome of a single source, heredity (Nature), or environment (Nurture). Child self-esteem was thought to be the result of biological predispositions, such as temperament, or environmental influences, such as parenting behaviors. More recently, the interactive effects of many variables have been studied in association with outcome variables such as self-esteem. For example, the child's biological make-up in the environment has been suggested as a source of behavior (Thomas & Chess, 1977). Specifically, innate child personality factors such as temperament have been suggested as contributing to parent-child interaction (Belsky, 1984; Bretherton & Waters, 1985; Lewis & Rosenblum, 1974; Thomas & Chess, 1977). While parenting behaviors have been associated with positive child self-esteem (Coopersmith, 1967), the relationship of child temperament with parenting behaviors in the child's development of self-esteem has received little attention.

Child Temperament

Child temperament has been suggested as a phenomenon, or a naturally occurring aspect of the
personality (Thomas & Chess, 1977). It is a quality of the individual that guides how that individual behaves or reacts to the environment. Because of this, research has usually focused on temperament in its relationship to, or interaction with, external environmental stresses and opportunities.

Thomas and Chess (1977) studied the role of child temperament in psychological development. They considered temperament to be the "how" (threshold, degree, duration) not the "what" (abilities and content) or "why" (motivations) of behavior. They described temperament as the way a person behaves.

In their New York Longitudinal Study (NYLS), Thomas and Chess (1977) followed 141 middle- or upper-middle-class children from birth (beginning in the late 1950's) to the present. Behavioral data on the children were collected through parent reports during infancy (beginning at 2 to 3 months of age), teacher reports in nursery and elementary school, direct observations in the school setting, through psychometric testing at ages 3, 6, and 9, and direct interviews with each youngster and parent separately at age 16 to 17 years. Academic achievement scores were gathered from school records and clinical evaluations were made if a child was reported to be displaying behavioral disturbances.
From their studies, Thomas and Chess (1977) found that differences in temperament could be recognized in infants as young as 2 to 3 months of age. Nine temperament categories were derived from the data: activity, rhythmicity, adaptability, threshold, approach/withdrawal, intensity, quality of mood, distractibility, and persistence.

A factor analysis of the data suggested two composite temperament types: "difficult" or "easy". Difficult temperament traits included: intense reactions, negative mood, non-adaptability, and high activity level. Easy temperament traits were: high-adaptability, positive mood, and high rhythmicity. These composite temperament types have been used in evaluating the effects of child temperament on parenting behaviors (Thomas & Chess, 1977).

The role of child temperament characteristics in influencing parental behaviors has been of recent interest (Belsky, 1984; Bretherton & Waters, 1985; Lewis & Rosenblum, 1974). Child temperament has been shown to influence children's responses to parental practices and attitudes and to shape the parent's judgements and feelings toward them (Thomas & Chess, 1977).

In a study of 24 black children, ages 2 to 18 months, and their mothers, Milliones (1978) explored the relationship between perceived child temperament and
maternal behaviors. He found that the more "difficult" the child was rated, the less responsive the mother was. Almost 30% of the variance in maternal responsiveness was accounted for by child temperament. This suggests that "difficult" child characteristics hinder the attachment process and cause the parent to be less responsive and involved.

Thomas and Chess (1977) point out that while parent behaviors appear to be influenced by child temperament, the child's temperament does not assure a certain type of parental reaction. For example, some "easy" children elicit parenting behaviors that are very attentive and responsive, qualities that are thought to be esteem-building for the child. Other parents of "easy" children tend to ignore the child because he/she demands so little care. This type of parenting is associated with the child's development of low self-esteem (Coopersmith, 1967).

The temperament composites "easy" and "difficult" do little to clarify the role of specific child temperament traits and their effects on parent behaviors, and ultimately, child self-esteem. Millions (1978) suggested the need to identify the specific child temperament variables that seem most stable, pervasive, and encouraging of maternal responsiveness. The temperament categories of mood and adaptability have been
recognized as factors in both "easy" and "difficult" temperament composites, which have been shown to be related to parent behaviors and child self-esteem.

Quality of Mood

The literature has suggested that child mood affects parent behaviors. Parents tend to respond more positively to children with a high level of positive mood (Bates, Maslin, & Frankel, 1985; Coopersmith, 1967). In one study, expressive, tranquil, and smiling children evoked a more positive response from the parent than children who were irritable or passive (Coopersmith, 1967). Bates, Maslin, and Frankel (1985) found that mothers who rated babies as lacking interest in them, made less effort to maintain contact with the child. Similarly, mothers were found to communicate more with responsive than unresponsive children (Bugental & Shennum, 1984). These mothers rated unresponsive children as lacking friendly (mood) behaviors, and as much more "difficult" than responsive children. These findings suggest that positive expressions of mood by the child encourage more responsive behaviors from mothers.

Adaptability

Non-adaptable temperament styles have been associated with child behavior problems, which in turn affect parent responsiveness. In one study, low child adaptability, negative parent-child interaction, and
total family stress best predicted behavior problems in 3-year-old children (Barron & Earl, 1982). Low adaptability accounted for 32% of the variance in behavior problems.

Low adaptability is also described as an impedement in the goodness-of-fit between parental expectations and child temperament. Thomas and Chess (1977) suggested that adaptable children are responsive to parental suggestion, and would be able to accept new and altered situations. Children who are adaptable are thought to be more rewarding for parents who would then demonstrate more positive behavior toward the child. Child adaptability appears to have relevance in initiating positive parenting behaviors.

Measuring Child Temperament

Parental reports of child temperament and parenting behaviors have been described as biased; that is, parents generally report the child's or their own behavior more positively or negatively than it is (Campos et al., 1983; Wylie, 1979). Bates, Maslin, and Frankel (1985) reported that mother's perceptions of their infant's temperament were better predictors of anxious behavior problems at age 3 than were direct observational methods. It has also been suggested that parents are in the best position to rate their child's temperament because their experience together covers a wide variety of situations.
Mothers and fathers have been found to focus on different child behaviors as being representative of the child's temperament (Mash & Johnston, 1983; Nelson & Simmerer, 1984). Because mothers are still generally considered to be the primary child caregiver (Lewis & Rosenblum, 1974), mother's reports of her child's temperament were used in this study. The possibility of biased reports by the mother has relevance in this study because it is her perception of her child's temperament that affects her parenting behaviors.

Parenting Behaviors That Contribute to Child Self-esteem

Many parenting behaviors have been explored in past research as contributors to child growth and development. Responsive parenting behaviors, for example, which enhance the child's sense of belonging and attachment (both measures of acceptance) are precursors to the development of child self-esteem (Bretherton & Waters, 1985; Cassidy, 1988; Harter & Pike, 1984). Responsive parenting appears to be a result of parent-child attachment.

Attachment

Parent-child attachment has helped to explain the relationship between child temperament and parenting behaviors. Attachment refers to the quality of the parent-child relationship, with the parent providing the
function of protecting the child from physical and psychological harm (Bretherton & Waters, 1985). Essentially, a well-attached child is one who feels secure that the parent is always available to provide protection when needed.

Stewart and Cohen (1976) pointed out that "attachment is fostered through the joint efforts of both mother and child in behavioral initiation and reciprocity of response" (p. 111). The authors found that parenting behaviors that contributed to strong attachment were egalitarian in orientation and person-oriented, and were an enduring quality of the relationship. Child behaviors that have been found to enhance the development of attachment are positive mood and adaptability (Belsky, 1984; Robinson & Moss, 1970).

Patterns of attachment were studied by Schneider-Rosen, Braunwald, Carlson, and Cicchetti (1985). Secure patterns of attachment were those that promoted competence (self-esteem) in the child. Insecure patterns of attachment were characterized by anxiety, resistance and avoidance by the child. In their study, securely-attached (not maltreated) comparison infants, as a group, were more likely to remain secure across assessments. Insecurely-attached maltreated infants tended to remain insecurely attached across time, while securely-attached maltreated infants tended to shift into the insecure...
groups over time. These findings suggest the importance of parental treatment in the development of secure parent-child attachment.

Secure parent-child attachment is of such importance that disturbances in the attachment process are thought to lead to irreversible developmental arrest (Robinson & Moss, 1970). Research has indicated that secure attachment reflects a "goodness-of-fit" between the parent and the child. Child temperament characteristics have been suggested as contributing to this relationship (Belsky, 1984). That is, some child temperament characteristics are thought to be more acceptable to a particular parent than others, fostering secure attachment. In addition, Robinson and Moss (1970) have proposed that new reinforcements for the parent are needed throughout the child's development to sustain secure attachment. Positive mood and adaptable child characteristics could serve as the necessary reinforcements.

In a study of six-year-old children Cassidy (1988) found that securely-attached children tended to report more positive global self-esteem than insecurely-attached children. Children who were securely-attached described themselves positively yet possessed the capacity to admit normal imperfections. These children displayed the sense that they would be accepted despite flaws. It appears
that children who are positively (securely) attached to the parent show greater self-reliance, a characteristic of high self-esteem (Bowlby, 1979).

While few longitudinal studies are available to clarify possible cause-effect relationships between parenting behaviors and child self-esteem (Wylie, 1974), the available research does suggest that responsive parenting behaviors (Belsky, 1984; Belsky, Lerner, & Spanier, 1984; Bretherton & Waters, 1985; Clarke-Stewart, 1973; Harter & Pike, 1984; White, 1975) and reasoning guidance (Baumrind, 1971; Belsky, 1984; Coopersmith, 1967) are important factors in developing secure parent-child attachment and enhancing the child's self-esteem.

**Responsiveness**

Coopersmith (1967) described parenting behaviors that enhanced child self-esteem as responsive, supportive, and encouraging in times of need. Parenting behaviors that are sensitively attuned to the child's capabilities and to the developmental tasks they face are called responsive and are said to promote a variety of highly valued developmental outcomes which contribute to the development of self-esteem (Belsky, 1984; Clarke-Stewart, 1973; Crase, Clark, & Pease, 1979; Harter & Pike, 1984; White, 1975).

Responsive and attentive parenting has been positively correlated with cognitive-motivational
competence (Belsky, Lerner, & Spanier, 1984) and verbal-cognitive development (Bretherton & Waters, 1985). Similarly, White (1975) found that parents who were available, prompt to respond, loving, encouraging, and free with praise promoted the development of competence in their children. Olson, Bates, and Bayles (1984) assessed mother-infant interaction and the development of individual differences in children's cognitive competence. Infants ($N=121$) were observed at ages 6, 13, and 24 months of age. Responsive and frequent maternal verbal stimulation and nurturant physical contact at 6 months of age significantly predicted cognitive competence at 24 months of age.

In sum, responsive parenting behaviors have been found to increase the child's sense of acceptance and competence. Harter and Pike (1984) pointed out that the child's perceptions of acceptance and competence are important measures of the child's self-esteem.

Reasoning Guidance

High levels of parental nurturance and reasoning guidance have been found to foster the child's ability to engage peers and adults in friendly and cooperative behaviors, all signs of high child self-esteem (Baumrind, 1971). Coopersmith (1967) reported that parents of children with high self-esteem were more than twice as likely to be firm and decisive with rules as were parents
of children with low self-esteem. Parentally-established rules were described as respectful, well-defined, and enforced, but neither harsh nor punitive, and as demonstrating generally verbal and rational guidance techniques. This finding has been replicated by others (Belsky, 1984; White, 1975; Yamamoto, 1972).

Parenting behaviors that demonstrate reasoning guidance give children clear cues to use in postulating their self-worth. Children who know the limits placed on their behavior are spared the anxiety of wondering about the approval of their behavior. They are more readily able to maximize pleasure over pain by selecting to behave in an acceptable manner, and in so doing, preserve their self-esteem. Research shows that parents who define and enforce rules show their child that they are concerned and interested in them. Parents who are not clear about rule enforcement, effectively indicate that the child is not important (Epstein, 1980).

A Theory of Self-Esteem

Theories of the self have helped to explain the relationship between child temperament, parenting behaviors, and the child's development of self-esteem. Epstein (1980) combined and clarified many theoretical propositions about self-concept development in his Integrated Theory of Personality. This theory draws on concepts from the psychoanalytic perspective,
behaviorism, and self theory.

The Integrated Theory of Personality describes self-concept as a theory of the self which is based on how the individual views the world. The major assumptions of Epstein's theory are that individuals tend to organize experience into conceptual systems, and that individuals are motivated to behave in a manner that brings pleasure and avoids pain. During development concepts are formed about emotionally significant experiences which serve to organize and guide future behavior. This system helps the individual to make sense out of the world by organizing events and anticipating future experiences. As part of the self-theory, child self-esteem develops from experience and guides behavior.

The self-theory contains a hierarchical arrangement of major and minor postulates. Minor postulates are low level generalizations derived directly from experiences and organized into larger and larger postulates. Major postulates, such as self-esteem, are very broad generalizations made from a composite of information.

According to Epstein's (1980) theory, a child who experiences a greater balance of positive experience with the parenting figure, will have feelings of being loveable, a minor postulate, which will be internalized as positive self-esteem, a major postulate. Major postulates, such as self-esteem, also direct the
individual to seek out and evaluate experiences that validate his or her previous experience. A child who feels competent will seek out new and interesting activities. A child who feels accepted will encourage friendly advances and will try new activities. In this way major postulates serve as self-fulfilling prophecies.

The responses or cues the child receives during the early stages of development serve to establish the child's self-esteem (Mead, 1934; Rogers, 1951; Sullivan, 1953). "The development of a self-system will occur so long as cues are available for making the distinction between the self and not-self, and so long as it is rewarding to make the distinction" (Epstein, 1980, p. 103).

The child's relationship with the parenting figure represents his or her most important source for cues that enhance self-esteem (Epstein, 1980; Mead, 1934; Rogers, 1951; Sullivan, 1953; White, 1975;). When the child's behavior elicits the parent's approval he or she feels accepted and self-esteem is developed (Epstein, 1980; Rogers, 1951).

Past research has utilized aspects of the Integrated Theory to examine parent-child relationships and child self-esteem. Coopersmith (1967) explored the conditions and experiences associated with the development of self-esteem. His initial screening involved testing 1,748
boys, 10 to 12 years of age. Of these, 85 were selected to be interviewed and rated on self-esteem. In addition, parents were assessed on attitudes and practices related to child rearing, child social behaviors, creativity, and prejudice.

Results revealed that boys who rated medium or high in self-esteem rated high in affective state, a positive mood characteristic. Affect, or states of happiness, expressiveness, and tension, were found to be largely due to prior experiences and treatment. These findings suggest a relationship between the child temperament characteristic of mood, accepting parenting behaviors, and child self-esteem.

Coopersmith (1967) summarized four factors that contributed to the development of child self-esteem. They included: respectful, accepting, and concerned treatment; history of success; values and aspirations; and manner of responding to devaluation. Parenting behaviors that are responsive and demonstrate reasoning guidance address these factors.

**Perceived Competence and Acceptance**

The child's perceptions of his or her competence and acceptance have been promoted by Harter and Pike (1984) as important factors in the development and measurement of self-esteem. The child's history of success as measured against his or her values and aspirations assist
in developing the child's sense of competence in both physical and cognitive domains (Coopersmith, 1967). Coopersmith (1967) also suggests that the respectful and accepting treatment a child receives encourages the child's feelings of acceptance. Research findings suggest that the child's sense of competence and acceptance is promoted by responsive parenting (Belsky, 1984; Clarke-Stewart, 1973; Crase, Clark, & Pease, 1979, White, 1975) and by parents who demonstrate reasoning guidance (Belsky, 1984; Coopersmith, 1967; White, 1975; Yamamoto, 1972).

Because early experiences are so important to the child's development of positive self-esteem, preschool children and their mothers were studied in this research project. Previous measures of self-esteem have focused on assessing self-esteem in older children. Recently research has supported the idea that very young children have the cognitive ability to maintain a "stable and continuous record of who they are" (Eder, Gerlach, & Perlmutter, 1987, p. 1050). Harter and Pike (1984) have attempted to tap the young child's sense of self-esteem by assessing the child's perceived competence and acceptance using a picture format. The Harter and Pike (1984) instrument was used in this study because it is developmentally appropriate for use with preschool children.
Other Factors

The development of self-esteem has been related to a variety of factors during the preschool years. Biological factors such as gender have been thought to affect child self-esteem, however the evidence is mixed. In one study, boys reported greater levels of self-esteem in physical domains than girls did (Harter, 1982) while Milliones (1978) cited no difference in self-esteem for boys or girls. Investigators have also avoided the possible effects of gender in the development of self-esteem by studying only one gender group (Coopersmith, 1967).

There is a paucity of research available to suggest that a particular temperament characteristic is more commonly found in boys or girls. Stereotypes concerning the acceptability of certain behaviors for boys and girls, however, are evident in our society. Boys are often expected to be more active and less adaptable than girls. Girls are frequently said to be more "moody". These opinions may be a reflection of expectations that are determined by the environment (Thomas & Chess, 1977) and, thus, may contribute to the child's development of self-esteem. In order to explore the relationship between gender and child self-esteem, gender was included as an independent variable in this study.

Research has also frequently cited environmental
factors, such as socioeconomic class, as contributing to the development of high self-esteem. Children from middle and high socioeconomic class families are thought to exhibit higher levels of self-esteem than children from families of low socioeconomic status (Hess, 1970; Warner & Lunt, 1941). The goodness-of-fit of the child's temperament with the demands, stresses, and expectations of the surrounding socioeconomic environment appears to be relevant in the child's development of self-esteem (Coopersmith, 1967; Thomas & Chess, 1977). For this reason, socioeconomic status was included as an independent variable in this study.

Summary

Child self-esteem appears to be enhanced by the interaction of biological characteristics, such as temperament, and environmental factors, such as parenting behaviors. The research has suggested that child adaptability and quality of mood affect parent-child attachment. As a result, the behaviors exhibited by the parent toward that child, including maternal responsiveness, are affected. The specific parenting behaviors of responsiveness and reasoning guidance have also been related to the development of positive self-esteem in young children. It was, therefore, the goal of this study to explore the inter-relationship of child temperament, parenting behaviors, and child self-esteem.
The roles of child gender and family socioeconomic status in the child's development of self-esteem are unclear. Therefore, these were included as descriptive variables in an effort to explore their relationship with child self-esteem.

**Hypotheses**

The following hypotheses were tested:

1. Child quality of mood, child adaptability, maternal responsiveness, maternal reasoning guidance, child gender, and family socioeconomic status positively correlated with the child's perceived competence and social acceptance.

2. Child quality of mood, child adaptability, maternal responsiveness, maternal reasoning guidance, child gender, and family socioeconomic status positively contributed to the child's perceived competence and social acceptance.

3. Child quality of mood and maternal responsiveness interacted positively to affect the child's perceived competence and social acceptance.

4. Child adaptability and maternal reasoning guidance interacted positively to affect the child's perceived competence and social acceptance.
Method

Subjects

The sample for this study consisted of 45 children and their mothers. The sample was drawn from children enrolled in the Oregon State University Child Development Center and the Linn-Benton Community College Family Resource Center. Twenty-four boys and 21 girls participated in the study. The children ranged in age from 39 to 68 months, with a mean age of 44 months. Family socioeconomic status was determined using the Hollingshead Four Factor Index of Social Position (1975) which assessed parental years of schooling, occupation, gender, and marital status. While not a random sample, these participants represented a wide variety of ethnic and socioeconomic backgrounds.

Instruments

In order to evaluate children's temperament (adaptability and quality of mood), parenting behaviors (maternal responsiveness and reasoning guidance) and the child's self-esteem (perceived competence and social acceptance) assessments were conducted using:

1. A Child Behavior and Parenting Inventory consisting of:

   (a) an adaptation of the Parent Temperament Questionnaire for Children (Thomas, Chess, and Korn, 1977);
(b) an adaptation of the Iowa Parent Behavior Inventory (Crase, Clark, and Pease, 1979); and (c) descriptive information. This information was collected from mothers of children in the preschool programs in a questionnaire format; and

2. The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1984), consisting of an evaluation of children's perceptions of their physical and cognitive competence and peer and maternal acceptance.

The questionnaire provided an overall measure of each child's temperament and maternal behavior, while the scale supplied an overall evaluation of each child's perceived self-esteem.

Child Behavior and Parenting Inventory

The format for this questionnaire was divided into three sections (see Appendix A). They were as follows:

Parent Temperament Questionnaire for Children

To assess children's temperament an adaptation of the Parent Temperament Questionnaire for Children (PTCQ: Thomas, Chess, and Korn, 1977) was used. The original scale consisted of 72 items related to activity, rhythmicity, adaptability, threshold, approach/withdrawal, intensity, quality of mood, distractibility, and persistence. For the purpose of
this study, the quality of mood and adaptability factors were utilized to obtain temperament scores. Research has indicated that quality of mood and adaptability are relevant in the parent-child relationship and in the child's development of self-esteem. Due to the limited size of the sample, the other factors were not used in this study.

The PTQC asked mothers to respond to each item by circling the choice that seemed to fit best. The original seven-point scale used by Thomas, Chess, and Korn (1977) was reduced to a five-point scale. Dillman (1978) has suggested that "respondents must identify the response dimension that underlies the answer choices and place themselves at the most appropriate point on a scale" (p. 89). A five-point scale helped to reduce confusion in selecting response dimensions. The scale offered the choices almost never, seldom, sometimes, often, almost always (rated 1 to 5 points). For example a comment might have been, "My child now eats food he/she used to dislike." Mothers were asked to circle the choice that fit best (1 to 5).

The quality of mood and adaptability subscales each consisted of eight questions, four in each of the upper and lower extremes of the behavioral range. Responses were assigned a weighted score. That is, an upper-extreme question (indicating a child with high
adaptability, for example) rated "5 - almost always" was assigned a weighted score of "5". A lower-extreme question (indicating a child with low adaptability, for example) rated "5 - almost always" was assigned a weighted score of "1". This method guarded against the patterned marking of any one choice (numbers 1 to 5), and assured the full use of the scale. Specifically, this avoided the possibility of rating all "5" scores for children who were highly adaptable, for example. The item scores were summed and then averaged to achieve the subscale score. If all questions in a subscale were answered, the score range was 1 to 5. Scores were determined for both the quality of mood and adaptability subscales. The quality of mood and adaptability subscale scores have not been found to be additive, thus the scores for each subscale were used in the data analysis.

Previous research has provided evidence of reliability and validity on the PTQC. High interrater reliability (90%) has been reported for the PTQC (Thomas & Chess, 1977). Barron and Earls (1984) have reported that temperament differences could be obtained reliably by parental report using the PTQC. Construct validity for this scale has been demonstrated with adaptability and quality of mood scores being correlated with parenting behaviors in expected directions (Neville-Nelson & Simmerer, 1984).
The Iowa Parent Behavior Inventory

Maternal parenting style was assessed using an adaptation of the Iowa Parent Behavior Inventory (IPBI: Crase, Clark, & Pease, 1979). The original version consisted of 42 items related to: parental involvement, limit setting, responsiveness, reasoning guidance, free expression, and intimacy. Two of these factors were selected to measure maternal parenting behavior for the purpose of this study, responsiveness and reasoning guidance. In the literature these factors have been consistently related to child self-esteem. The other four factors were not used because of the limited sample size.

The IPBI attempted to measure maternal behavior in relation to a specific child in an actual behavioral situation. Ratings reflected the mother's perception of her own behavior. For example, "To what extent do you give your child things he or she especially likes when he or she is ill?" The mother was asked to respond by circling the number (1 to 5) that best described her behavior towards her preschool child. The choices included: almost never, seldom, sometimes, often, or almost always. The responsiveness and reasoning guidance subscales consisted of seven questions each.

Data were scored by giving each response a corresponding 1 to 5 rating in which 1 was a low score
and 5 was a high score for the factor described. The items within a factor were summed and then averaged to obtain the factor score. There has been no evidence that the factor scores comprising this scale are additive, therefore, scores for the responsiveness and reasoning guidance subscales were analyzed individually. Two scores for each mother were obtained, each ranging from 1 to 5 points.

Reliability estimates for the IPBI have been reported for the total variance reliability of each factor using the Spearman-Brown formula: responsiveness, $r = .79$; reasoning guidance, $r = .81$. A second reliability estimate using a variation of the Spearman-Brown formula where correlations among the items are generated from the loadings on a single factor has also been reported. This reflects the reliability with which the scales measure the factor they were designed to measure (unique variance: responsiveness, $r = .75$; reasoning guidance, $r = .77$). These correlations suggested moderately high reliability of the IPBI. Parenting behaviors have been accurately measured and correlated with child self-esteem in the predicted directions (Neville-Nelson & Simmerer, 1984), demonstrating construct validity of the IPBI.

**Descriptive Data**

The third section of the questionnaire contained questions to gather descriptive data. Child gender and
information used to determine family socioeconomic status were noted. This information was analyzed for descriptive purposes, and was entered into the regression analyses. Child gender was recorded as "0" for boys and "1" for girls. These scores were used in the analyses.

The Four Factor Index of Social Status (Hollingshead, 1975) was adapted for use to determine family socioeconomic status. The four factors used in the index are level of education completed, occupation, sex, and marital status. Information was collected for each parent residing with the child. Education and occupation were coded by noting the scale value assigned for each particular entry by the Hollingshead Index. Level of education, for example, could be scored on an adapted scale of "1" for 8th grade or less, to "6" for a graduate degree. This score was multiplied by three to give a weighted status score for education. The occupation factor rated gainful employment on a nine-step scale, "1" for laborers and service workers to "9" for executive or professional employment. The occupation score was multiplied by five to give a weighted score for occupation. The weighted scores for education and occupation were summed to achieve a score for family socioeconomic status. For families with two gainfully employed spouses the score for socioeconomic status was determined by summing and then averaging the weighted
scores for each parent. Scores for socioeconomic status ranged from 8 to 58. Higher scores indicated higher levels of socioeconomic status. The two index factors of sex and marital status assisted in the collection and interpretation of the education and occupation information.

Reliability estimates for the Four Factor Index of Social Status have been determined using the Pearson Product Moment Coefficient of Correlation. Reliability of the Index is rated as high (r=.93). Construct validity is also considered high as socioeconomic status has been accurately determined by assessments of education and occupation.

The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children

Child self-esteem was measured using the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (PSPC: Harter & Pike, 1984). The PSPC was developed specifically for use with children ages 4 to 7 years of age (see Appendix B).

The PSPC measured two general constructs, perceived competence and perceived social acceptance. Each of these domains contained two subscales. Cognitive competence and physical competence comprised the perceived competence domain. Peer acceptance and maternal acceptance were the subscales for social
acceptance. Six items comprised each subscale, therefore, the instrument contained a total of twenty-four items. Harter and Pike (1984) have indicated that measures in the two domains have not been shown to be additive for use as a singular measure of self-esteem.

The PSPC was presented in a pictorial format. Two books of picture plates were available, one for girls and one for boys. The activities depicted in the books were identical except for the gender of the target child. This allowed the subject to make selections from pictures of same-gendered children.

The instrument was administered in a quiet but familiar part of the preschool facility. Two child-sized chairs and a child-sized table were used. The children were asked to play a picture game with the investigator. The investigator attempted to build the child's confidence by informal visiting as they walked to the testing area. The activity was explained and the investigator demonstrated the method of response (by pointing to a selected picture). Positive responses and encouragement were used to maintain the child's participation. Upon completion of the instrument the investigator walked back to the class activities with the child thanking him or her for playing the game.

The investigator read a short statement about the picture plates shown. The child was asked to indicate
(by pointing) "Which boy or girl is most like child's name?" After making the selection, the child was asked to respond further to a more specific descriptive question about that picture.

For example, a child was told that the "girl or boy on the left is good at puzzles, the girl or boy on the right is not very good at puzzles". The child was asked, "Which girl or boy is most like child's name?" After selecting a picture, the child was asked, "Are you really good at puzzles (pointing to the large circle), or pretty good at puzzles (pointing to the small circle)?"

Overall, the child had the opportunity to select from four specific choices, generally representing these options from the previous example: Not very good; Sort of good; Pretty good; or Very good.

Each response was scored on a four point scale where a "4" indicated the most competent or accepted, and a "1" indicated the least competent or accepted. Responses were recorded on a scoring key. Scores were averaged across the six items within each subscale. The subscales of cognitive and physical competence were summed and then averaged to obtain a score for general competence. The subscales of peer and maternal acceptance were summed and then averaged to obtain a total score for social acceptance. The PSPC yielded two different scores for each child, each ranging from 1 to 4 points. These
scores were used in the data analyses.

Subscale reliability scores for the PSPC have been determined using a coefficient alpha (providing an index of internal consistency) ranging in value from .50 to .85. Reliability for the total scale (all 24 items) was in the mid- to high .80's, and was described as acceptable. When subscales were combined, reliability fell within a range of r=.75 to .89. Convergent validity was described as good for both cognitive and physical domains.

**Procedure**

Data were collected using the Child Behavior and Parenting Inventory (see Appendix A) and the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (see Appendix B). The questionnaire was pilot-tested with 5 mothers of preschool-aged children similar to the sample group. Through the preschools participants were provided a copy of the survey marked with an identification number for tracking purposes, and an envelope to be returned to the child's school. A cover letter (see Appendix C) explained the purpose of the study, and asked that the questionnaire be returned by a specified date. As Dillman (1978) suggests, follow-up reminders were made. One week following the distribution of the questionnaires, reminder letters were given to participants who had not responded. Two weeks
following distribution, a second questionnaire and letter were given to non-respondents. Also, participation was encouraged by offering a children's book to each mother who returned the questionnaire. These books were sent home from the preschool promptly upon receipt of the questionnaire.

Children's perceived competence and social acceptance were assessed by the principal investigator using the PSPC. The PSPC was administered to children during the regular preschool session at the same time the questionnaire was sent to mothers.

Effort was made to maintain the confidentiality of the mother and child. A master list of participant names and their identification numbers was maintained. Score sheets and questionnaires were marked with the identification number. At no time was the participant's name listed on the questionnaire. Data from each mother-child pair were compiled on a single score sheet.
Results

There were 24 boys and 21 girls in the sample. The average socioeconomic status level for the families in this study was the upper middle-class (Hollingshead, 1975) (SD=7.10). On the PTCQ 5-point scales of Quality of Mood and Adaptability, the respondents reported an average of 3.79 (SD=.43) and 3.89 (SD=.59), respectively. The average scores out of a possible 5 points on the Responsiveness and Reasoning Guidance subscales of the IPBI were 4.21 (SD=.52) and 4.15 (SD=.42), respectively. On the PSPC 4-point scales, the average scores on Perceived Competence and Social Acceptance were 3.27 (SD=.50) and 3.05 (SD=.55), respectively (See Table 1).

Preliminary Analysis

The primary purpose of this study was to determine if a relationship existed between child temperament and maternal behavior with child self-esteem. Prior to conducting the regression analyses, in order to determine if multicollinearity among independent variables existed, Zero-order Pearson correlations on the relationships between child temperament, maternal behavior, child perceived competence, social acceptance, child gender, and family socioeconomic status were performed. Correlation coefficients are presented as a
### Table 1
Descriptive Statistics of All Variables

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<th></th>
<th>Mean</th>
<th>Deviation</th>
<th>Range</th>
</tr>
</thead>
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<td></td>
<td></td>
</tr>
<tr>
<td>Quality of Mood</td>
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<td>.43</td>
<td>2.57-4.75</td>
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<tr>
<td>Adaptability</td>
<td>3.89</td>
<td>.59</td>
<td>2.13-4.83</td>
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<td></td>
</tr>
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<td>Responsiveness</td>
<td>4.21</td>
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<td>3.00-4.75</td>
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<td>Reasoning</td>
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<tr>
<td>Guidance</td>
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<td>.42</td>
<td>3.14-5.00</td>
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<td><strong>Child Self-esteem</strong></td>
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<tr>
<td>Perceived</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competence</td>
<td>3.27</td>
<td>.50</td>
<td>2.00-3.92</td>
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<tr>
<td>Acceptance</td>
<td>3.05</td>
<td>.55</td>
<td>1.58-3.91</td>
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</table>

N=45
correlation matrix in Table 2. Due to the exploratory nature of this study, a significance level of p<.10 was selected in order to explore any suggested trends in relationships. No multicollinearity among the independent variables was revealed, indicating that each variable contributed uniquely to perceived competence and social acceptance. For this reason, all independent variables were maintained in the regression analyses. The results of the correlation matrix are discussed in the following section.

**Child Temperament**

The child temperament characteristics of quality of mood and adaptability were significantly related to other variables. More specifically, a positive correlation between quality of mood and child gender was revealed (p<.05). Scores for quality of mood were significantly higher for girls than boys indicating that mothers perceived girls as demonstrating more positive and happy expressions than boys. Quality of mood was also positively correlated with family socioeconomic status (p<.10). That is, mothers from higher socioeconomic levels rated their children significantly more positively on quality of mood than did mothers from lower socioeconomic levels. Quality of mood was not significantly correlated with maternal behaviors or child self-esteem. A negative correlation was
Table 2

Pearson Correlations Among All Variables

<table>
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<th>4</th>
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<td><strong>Child Temperament</strong></td>
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<tr>
<td>1. Quality of Mood</td>
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<tr>
<td>2. Adaptability</td>
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<tr>
<td><strong>Maternal Behaviors</strong></td>
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<td></td>
</tr>
<tr>
<td>3. Responsiveness</td>
<td>.23</td>
<td>-.20</td>
<td>---</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>4. Reasoning Guidance</td>
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<td>.10</td>
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</tr>
<tr>
<td>5. Perceived Competence</td>
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<td>.06</td>
<td>-.24</td>
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<tr>
<td>6. Social Acceptance</td>
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<td>.33*</td>
<td>-.20</td>
<td>.50***</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>7. Gender</td>
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<td>.01</td>
<td>.22</td>
<td>-.04</td>
<td>.16</td>
<td>.30*</td>
<td>---</td>
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</tr>
<tr>
<td>8. SES</td>
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<td>.12</td>
<td>.21</td>
<td>-.06</td>
<td>-.16</td>
<td>-.03</td>
<td>---</td>
</tr>
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</table>

Note. Gender was scored: 0=boy, 1=girl.

N=45

+p<.10, two-tailed. *p<.05, two-tailed. **p<.001, two-tailed.
demonstrated between the child temperament variable of adaptability and social acceptance (p<.05). The more adaptable the child, the less that child perceived he or she was socially accepted. No significant relationship was found between either of the child temperament variables and perceived competence.

Parenting Behavior

The parenting behavior of maternal responsiveness was found to positively correlate with the child's perceived social acceptance (p<.05). That is, the more responsive mothers rated their parenting behavior, the more their children perceived themselves as being socially accepted. Maternal use of reasoning guidance, however, was not significantly correlated with the child's perceived social acceptance. In addition, maternal behaviors were not significantly related to perceived competence. Also, child temperament variables and maternal behaviors were not significantly correlated.

Self-esteem

In addition to the relationship between social acceptance and maternal responsiveness and adaptability, social acceptance was found to be positively related with child gender (p<.05). Specifically, girls scored significantly higher on social acceptance than did boys. The dependent variables measuring child self-
esteem, social acceptance and perceived competence, were positively correlated (p<.001). Perceived competence was not significantly related to any independent variable.

The Relationship of Child Temperament and Maternal Behaviors with Child Self-esteem

A series of regression analyses were applied to determine the relationship of child temperament, maternal behavior, gender and family socioeconomic status to child self-esteem. First, the independent variables were regressed individually against the child's social acceptance and perceived competence (see Tables 3 and 4). This model revealed the unique contribution of each variable to social acceptance and perceived competence. When considering social acceptance, child adaptability and gender significantly predicted social acceptance (p<.05), each accounting for 9 percent of the variance. Maternal responsiveness also predicted child social acceptance (p<.05), accounting for 11 percent of the variance. The variables child quality of mood, parental reasoning guidance, and socioeconomic status did not predict social acceptance. Children's perceived competence was not predicted by any of the independent variables (Table 4).

A set of hierarchical multiple regressions were run in four steps (see Table 5). First the variables of
Table 3

Univariate Regressions of All Variables Predicting Children's Perceived Social Acceptance

<table>
<thead>
<tr>
<th>Variables</th>
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<th>SE</th>
<th>t</th>
<th>R2</th>
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</thead>
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Note. N=45.

*p<.05.
Table 4

Univariate Regressions of All Variables Predicting Children's Perceived Competence

<table>
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N=45
Table 5

Hierarchical Multiple Regression Analyses Predicting Children's Social Acceptance

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<th>R2</th>
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<td>.38</td>
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<td></td>
</tr>
<tr>
<td>Adaptability</td>
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<td>.13</td>
<td>-1.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.23</td>
<td>.16</td>
<td>1.44</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>4.73</td>
<td>-.92</td>
<td>.27</td>
<td>.06</td>
</tr>
</tbody>
</table>

Note. N=45.

+p<.10.  *p<.05.
child gender and socioeconomic status were run against social acceptance. Child gender significantly predicted greater social acceptance ($p < .05$). This finding indicates that girls tended to feel greater social acceptance than did boys. Socioeconomic status did not significantly contribute to the regression model. When entered together, the descriptive variables accounted for 11 percent of the variance in social acceptance.

Second, child temperament variables were entered into the regression model along with the descriptive variables. Greater child adaptability was found to contribute significantly to decreased social acceptance ($p < .05$). That is, the more adaptable a child was rated, the lower the child perceived he or she was socially accepted. In addition, gender was found to significantly contribute to social acceptance ($p < .10$). Again, maternal ratings of girls were higher in social acceptance than maternal ratings of boys. Child quality of mood and socioeconomic status were not found to be significant in the regression model. Child temperament and descriptive variables accounted for 21 percent of the variance in social acceptance. This step of the hierarchical regression contributed a change in $R$ square of .10. That is, child temperament variables predicted 10 percent of the variance in social acceptance.
In the third step, parenting behavior variables were entered into the regression model along with child temperament and descriptive variables. Results revealed that maternal responsiveness significantly and positively predicted social acceptance (p<.10). Mothers who rated themselves higher in maternal responsiveness had children who perceived greater social acceptance. The effects of child adaptability and gender were not found to be significant. The combination of child temperament, maternal behaviors, and descriptive variables accounted for 27 percent of the variance in social acceptance. These results indicate that the maternal behavior variables accounted for 6 percent of the variance in social acceptance. The hierarchical regression showed no significant relationship between the independent variables and the child's perceived competence (see Table 6). Because of the lack of significant findings, child perceived competence was not considered in the tests for interaction.

**Interactions Among Child Temperament and Maternal Behaviors with Self-esteem**

In the final phase of the analyses, interactive effects of child temperament and maternal behaviors were tested against social acceptance. Of particular interest was whether the predicted child temperament variables and maternal behaviors interacted in affecting
Table 6
Hierarchical Multiple Regression Analyses Predicting Children's Perceived Competence

<table>
<thead>
<tr>
<th>Variables</th>
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<th>t</th>
<th>R2</th>
<th>R2</th>
</tr>
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<td><strong>Descriptive Variables</strong></td>
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<td></td>
<td></td>
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<td>.15</td>
<td>1.00</td>
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<tr>
<td>SES</td>
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<td>-.39</td>
<td>.03</td>
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<td><strong>Descriptive Variables and Child Temperament</strong></td>
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<tr>
<td>Quality of Mood</td>
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<td>.08</td>
<td></td>
<td></td>
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<tr>
<td>Adaptability</td>
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<td>.13</td>
<td>.75</td>
<td></td>
<td></td>
</tr>
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<td>Gender</td>
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<td>.16</td>
<td>.15</td>
<td></td>
<td></td>
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<tr>
<td>SES</td>
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<td>4.75</td>
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<td>.04</td>
<td>.01</td>
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<tr>
<td><strong>Descriptive Variables, Child Temperament, and Maternal Behaviors</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Responsiveness</td>
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<td>.16</td>
<td>.56</td>
<td></td>
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</tr>
<tr>
<td>Reasoning</td>
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<td></td>
</tr>
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<td>Guidance</td>
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<td>-1.55</td>
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</tr>
<tr>
<td>Quality of Mood</td>
<td>-.02</td>
<td>.20</td>
<td>-.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adaptability</td>
<td>.12</td>
<td>.14</td>
<td>.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.13</td>
<td>.16</td>
<td>.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SES</td>
<td>-8.38</td>
<td>4.85</td>
<td>-.17</td>
<td>.10</td>
<td>.06</td>
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</tbody>
</table>

Note. N=45.
+p<.10. *p<.05.
social acceptance. Interactive variable scores were obtained for each subject by multiplying the raw data scores for each variable. Specifically, the interactions of child quality of mood x maternal responsiveness, and child adaptability x maternal reasoning guidance were computed. These interactive variables were then entered into a simple linear regression model with social acceptance.

When regressed against social acceptance, child quality of mood x maternal responsiveness significantly predicted an increase in social acceptance (p<.05) (see Table 7). The interaction accounted for 10 percent of the variance in social acceptance. This is the same amount of variance in social acceptance contributed by responsiveness alone in the univariate regression model. These results suggest that it may be the variable of maternal responsiveness that contributes to social acceptance rather than child quality of mood. Table 8 shows the social acceptance scores for children rating high or low for quality of mood versus mothers rating high or low for responsiveness. High or low scores for each variable were determined by computing the median score reported for that variable. Scores higher than the median were rated "high", scores lower than the median were rated "low". Mothers who scored high for responsiveness had children who scored higher...
Table 7

**Interaction Effects of Child Quality of Mood x Maternal Responsiveness Predicting Child Social Acceptance**

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Mood x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsiveness</td>
<td>.06*</td>
<td>.03</td>
<td>2.13</td>
<td>.10</td>
</tr>
</tbody>
</table>

Note. N=45

*p<.05
Table 8

Child Quality of Mood x Maternal Responsiveness
Contribution to Child Social Acceptance

<table>
<thead>
<tr>
<th>Maternal Responsiveness</th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child</td>
<td>N=14</td>
<td>N=3</td>
</tr>
<tr>
<td>Quality of Mood</td>
<td>Mean=3.02</td>
<td>Mean=2.92</td>
</tr>
<tr>
<td></td>
<td>N=17</td>
<td>N=11</td>
</tr>
<tr>
<td>Low</td>
<td>Mean=3.09</td>
<td>Mean=2.35</td>
</tr>
</tbody>
</table>


in social acceptance for both high and low mood categories.

Next the interaction of child quality of mood x maternal responsiveness was entered into the regression model with child adaptability against social acceptance (see Table 9). Greater child quality of mood x responsiveness significantly contributed to greater social acceptance (p<.10). In the regression model, high adaptability significantly related to lower social acceptance (p<.10). This combination of variables accounted for 17 percent of the variance in social acceptance.

The interaction of child adaptability x maternal reasoning guidance significantly predicted lower social acceptance scores (p<.05) (see Table 10). Social acceptance scores for children scoring high or low for adaptability, and mothers scoring high or low for responsiveness are shown in Table 11. Median scores for each variable were used to determine "high" or "low" categories. Children with higher adaptability scores whose mothers used more reasoning guidance reported less social acceptance. The interaction of adaptability and reasoning guidance accounted for 11 percent of the variance in social acceptance. This represents a moderately strong interaction effect in predicting social acceptance.
Table 9

Interaction Effects of Child Quality of Mood x Maternal Responsiveness and Child Adaptability Predicting Child Social Acceptance

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>R2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Mood x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsiveness</td>
<td>.05+</td>
<td>.03</td>
<td>1.90</td>
<td></td>
</tr>
<tr>
<td>Adaptability</td>
<td>-.25+</td>
<td>.13</td>
<td>-1.87</td>
<td>.17</td>
</tr>
</tbody>
</table>

Note. N=45.
+p<.10.
Table 10

Interaction Effects of Child Adaptability x Maternal Reasoning Guidance Predicting Child Social Acceptance

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptability x Reasoning Guidance</td>
<td>-.06*</td>
<td>.03</td>
<td>-2.38</td>
<td>.11</td>
</tr>
</tbody>
</table>

Note. N=45.

*p<.05.
### Table 11

**Child Adaptability x Maternal Reasoning Guidance**

** Contributing to Child Social Acceptance **

<table>
<thead>
<tr>
<th>Maternal Reasoning Guidance</th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Mean=2.67</td>
<td>Mean=3.09</td>
</tr>
<tr>
<td>N=10</td>
<td>N=14</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Mean=3.05</td>
<td>Mean=3.36</td>
</tr>
<tr>
<td>N=10</td>
<td>N=11</td>
<td></td>
</tr>
</tbody>
</table>
To further explore the interaction effect on social acceptance, adaptability x reasoning guidance was entered into the regression model with maternal responsiveness. Table 12 summarizes these findings. In this equation, adaptability x reasoning guidance predicted significantly lower social acceptance (p<.05), while maternal responsiveness contributed to significantly higher social acceptance (p<.05). The interaction effect of adaptability x reasoning guidance and maternal responsiveness accounted for 20 percent of the variance in social acceptance. Adding maternal responsiveness into the regression model with adaptability x reasoning guidance increased the variance accounted for by 9 percent. This combination of variables is relevant in predicting social acceptance.
Table 12

**Interaction Effects of Child Adaptability x Maternal Reasoning Guidance and Maternal Responsiveness Predicting Child Social Acceptance**

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>R2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptability x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reasoning Guidance</td>
<td>-.06*</td>
<td>.02</td>
<td>-2.23</td>
<td></td>
</tr>
<tr>
<td>Responsiveness</td>
<td>.31*</td>
<td>.15</td>
<td>2.10</td>
<td>.20</td>
</tr>
</tbody>
</table>

*Note. N=45.*

*p<.05.*
Discussion

The role of heredity and environment in the child's development of self-esteem is complex. As Epstein (1980) suggests, self-esteem may be derived from the combination of experience and how the individual interprets that experience. While child temperament composites of "easy" and "difficult" temperaments have been explored, the role of specific child temperament characteristics on child self-esteem has not been examined. Similarly, parenting behaviors have been grouped into parenting "styles" for study, ignoring the specific behaviors which contribute to positive child self-esteem.

This study explored the interrelated aspects of heredity and environment by testing particular child temperament characteristics and specific maternal behaviors in relationship to child self-esteem. Descriptive variables have also been considered. While not solving the unique contribution of heredity and environment, the results of this research have shown some interesting relationships between the biologically- and environmentally-based variables. While some characteristics such as child temperament and maternal behaviors affect the development of self-esteem uniquely, this study also suggests that biologically- and environmentally-based variables interact to jointly
affect self-esteem. This information can offer suggestions for the direction of future research in the area of child self-esteem.

Child Temperament

Results of the present study indicated that there was a moderate relationship between child temperament and self-esteem. Specifically, social acceptance was affected by child adaptability, but not by the child's quality of mood. The relationship of child adaptability and self-esteem was not in the expected direction. Previous research has suggested that children of more adaptable temperaments were more likely to develop high, or positive, self-esteem while children of less adaptable temperaments developed low, or negative, self-esteem (Barron & Earl, 1982; Thomas & Chess, 1977). The data here suggest that children of high adaptability perceived themselves to be less acceptable. Theories of temperament provide possible explanations for this finding.

Temperament theory implies a temporal arrangement between temperament characteristics and other variables (Campos et al., 1983; Thomas & Chess, 1977). That is, temperament characteristics are thought to be present from birth. Other factors such as parenting behaviors may serve as "responses" to the child's temperament. This implies that children who are highly adaptable may
encourage others to demonstrate less acceptance. Highly adaptable children, for example, may adjust quickly to new and different experiences indicating that they don't need the help of others. This kind of behavior could interrupt the development of strong child and mother attachment. Poorly-attached children may perceive less acceptance. Children who are low in adaptability may solicit more accepting behaviors from others because of their inability to conform to routine, to compromise, or to accept changes. They may demonstrate the need for more parental and peer responsiveness.

On the other hand, Epstein's theory of self-concept development (1980) might describe highly adaptable children as being over-reactive to cues from the environment such that the children find it very difficult to feel accepted. In this case, highly adaptable children would overly react to experiences such as criticism or ridicule. They may be so flexible in adjusting to the negative opinions of others that they do not develop a stable and positive sense of self. Coopersmith (1967) cites the ability to overcome devaluing experiences as crucial to the development of positive self-esteem. Children of low adaptability would similarly be unable to shrug off devaluing experiences. Ridicule or failure at tasks would reduce their history of success and contribute to the
development of negative self-esteem. Children of low adaptability might tend to remain rigid in their negative opinion of themselves. This finding would be in keeping with the findings of previous research (Epstein, 1980). Perhaps moderately adaptable temperaments would be able to weigh and measure experiences most appropriately for the development of positive self-esteem. Children of moderate adaptability would be able to compromise as well as maintain their own opinions. These qualities would be most beneficial in promoting positive self-esteem.

In the present research, child quality of mood was found to have little affect on social acceptance and none on perceived competence. This finding suggests that children may be able to perceive themselves as more or less socially accepted or competent regardless of their display of mood. That is, children who display joyful and friendly expressions may not necessarily perceive themselves to be more competent and socially accepted than children who display crying and unfriendly expressions. Maternal responsiveness was also not found to be related to child quality of mood. This finding does not support the results of previous research which have suggested a connection between greater child quality of mood and greater maternal responsiveness.
This may be accounted for by noting that scores for maternal responsiveness for this sample were generally very high. That is, most mother's rated themselves very high in responsiveness. Because of this, a relationship between child quality of mood and maternal responsiveness could not be distinguished. Perhaps in another sample group where a broader range of scores for maternal responsiveness was obtained, the predicted relationship would be noted.

**Maternal Behaviors**

With respect to maternal behaviors, responsiveness was found to have the strongest relationship with child self-esteem, particularly through its strong contribution to positive social acceptance. This finding supports the results of previous research (Belsky, 1984; Coopersmith, 1967; Harter & Pike, 1984). As Epstein (1980) suggests, mother's who use responsive parenting may be giving their children cues to use in postulating positive self-worth. Timely responses by the mother to her child's implied and actual expressions of need regardless of the immediacy of the need, appear to be important parenting behaviors for the preschoolers' development of self-esteem.

In this study, responsive mothers indicated their awareness of the changing needs of their children.
Perhaps this accounts for the positive effect they had on their child's self-esteem. One mother noted the growth towards more "independence and self-reliance" on the part of her child. Another mother described her efforts to encourage her child to "rely on herself more when she has a minor mishap, while still letting her know that she can always come to me for comfort." These comments suggest that responsive parenting behaviors show great interest and respect for the growing child.

In addition to these findings, the negative correlation of maternal reasoning guidance with social acceptance suggests an interesting possibility. Low levels of reasoning guidance have been associated with poor self-esteem (Baumrind, 1971; Belsky, 1984; Coopersmith, 1967), while the results of this study indicate that high levels of reasoning guidance contribute to low self-esteem. It seems that the more mothers reason with their preschool children, the less accepted the children feel. This may reflect the preschool child's desire to assert his or her independence. Maternal reasoning guidance may be interpreted by the child as demonstrating poor confidence in his or her abilities. Perhaps moderate levels of maternal reasoning guidance would relate more positively to child self-esteem. Mothers who practice moderate amounts of reasoning guidance may be able to
provide the teaching necessary to help the child recognize secure limits, while demonstrating confidence in the child's ability to learn from his or her actions. This combination of individualized teaching within clearly defined limits would be appropriate for use with preschool children.

Additional Findings

Gender Differences

In this study, gender and family socioeconomic status showed a mixed contribution to the development of self-esteem. Child gender showed a strong relationship, with girls demonstrating greater perceived social acceptance than boys. This finding indicates that preschool girls may tend to perceive more positive responses from their mothers and peers than do boys, contributing to the girls greater feelings of social acceptance. Whether girls more often behave to promote accepting responses from others, or whether they perceive acceptance merely because they are girls is not clear. Perhaps role expectations are more clearly defined for preschool girls making acceptable behavior more obtainable for them than it is for boys. On the other hand, boys may perceive social acceptance more "realistically" than girls and indicate this through lower reports of social acceptance.

Despite the gender differences found in this
research, the significance of gender diminished when the child temperament variables and parenting behavior variables were added to the hierarchical regression model. This may indicate that other variables associated with gender, such as maternal responsiveness, are better predictors of child self-esteem.

**Socioeconomic Differences**

In addition to gender differences, results of the present study related to socioeconomic status differences were noteworthy. In this research, family socioeconomic status was not found to significantly contribute to the child's self-esteem. Past research has indicated that children from middle and high socioeconomic class families demonstrate greater levels of self-esteem than children from families of low socioeconomic class (Hess, 1970; Warner & Lunt, 1941). It may be that socioeconomic status is not an issue in self-esteem for this age group. Preschool children may not have a history of experiences in which socioeconomic status is an issue. Older children might demonstrate the effects of socioeconomic status more readily. The particular variables studied here may not have tapped this relationship. It should also be noted that this sample was taken from the preschools of a university and a community college. The children in the sample group did not represent extremely deprived socioeconomic
situations. Therefore, socioeconomic status may be more relevant in a different sample.

**Summary**

Positive self-esteem is a desirable quality to encourage in the developing child. The information provided from this study suggests that responsive parenting is an important aspect in the child's development of a positive perception of social acceptance, a precursor to self-esteem. Low child adaptability and low parental reasoning guidance were also found to be relevant to the development of positive self-esteem, though this relationship needs to be clarified by future research. The interaction effect of child mood x maternal responsiveness was positive and affected social acceptance in the expected direction, while the interaction of child adaptability x maternal reasoning guidance presented a negative and unpredicted effect.

The results of the present study indicate a relationship between some child temperament characteristics, maternal behaviors, and child self-esteem. These relationships describe the importance of considering the child's temperament or "nature" in his or her "nurturing" environment when studying the development of self-esteem. The results also suggest that children at different levels of development may
perceive themselves to have higher or lower self-esteem depending on the appropriateness of the mother's behaviors for them. This information may be helpful to parents who are constantly struggling to adjust to the needs of their developing child. For example, parent education classes could instruct parents about the desirability of fitting guidance techniques to the temperamental and developmental needs of their child. The benefits of responsive parenting in developing positive child self-esteem could also be promoted.

Limitations and Directions for Future Research

Several limitations of the present study should be noted when interpreting the findings of the present study. Sample limitations restrict the application of these findings to the greater population. For example, the sample size of 45 subjects is relatively small from which to draw the data. The subjects did not represent a random sample of 3- to 5-year-old children and their mothers. The sample also tended to over-represent middle to upper-middle class families. These points should be considered when generalizing the findings to other populations.

Design limitations may also be of importance when interpreting the findings presented here. Self-report measures by mothers of their parenting behaviors, and by children of their perceived self-esteem are important
considerations. It is possible that mothers gave socially accepted answers or perceived their parenting behaviors more positively than they actually were. Similarly, children may have tended to give self-esteem reports reflecting what they "wish" would be, rather than what they really perceived their self-esteem to be. Harter and Pike (1984) have also suggested the possibility that children may give low reports of competence and social acceptance reflecting a "more realistic" perception of their self-esteem. These issues indicate the need for further exploration of the instruments used to assess personal qualities such as self-esteem.

The lack of significant findings relating child quality of mood and self-esteem has important implications for observational methods of assessing child self-esteem. That children can maintain positive or negative self-esteem regardless of their displayed quality of mood is an interesting finding. Because the child's quality of mood did not relate to perceived self-esteem, mood characteristics would be unreliable indices of self-esteem. That is, a child who expresses more happy and friendly behaviors may not necessarily be demonstrating high levels of self-esteem. Future research would be needed to clarify the observable behaviors related to positive levels of self-esteem.
The results also reveal the need for future study about the relationship of child temperament, maternal parenting behaviors, and child self-esteem. High levels of child adaptability, for example, did not positively affect self-esteem as had been expected. Future research could explore the relationship of moderate levels of adaptability, as opposed to high or low levels of adaptability, with self-esteem.

Future research may also be needed to fully understand the role of parenting behaviors in the development of self-esteem. Maternal responsiveness was revealed as an important predictor of positive child self-esteem. Studies about "what" responsive mothers "do" to promote positive self-esteem could aid in understanding the development of self-esteem. These findings could offer information about child development and may provide suggestions for parent education.

Similarly, the negative affect of maternal reasoning guidance on child self-esteem reported here needs to be clarified by future research. Child perceptions of low self-esteem when mothers used high reasoning guidance may indicate the need to re-examine the appropriate guidance methods used with preschool children.

The relationship of perceived competence with child temperament and maternal behavior may also need to be
explored in future research. No significant relationship was revealed in this study. This is interesting because of the strong suggestion by previous research that child temperament and parenting behaviors are related to positive perceptions of perceived competence (Belsky, 1984; Clarke-Stewart, 1973; Coopersmith, 1967; White, 1975). It may be that the variables studied here did not tap the specific child temperament characteristics or parenting behaviors which contribute to the development of competence. Other child temperament characteristics such as intensity and distractibility may be more closely related to child competence. Also, there may be other behaviors mothers use which promote greater perceived competence. These variables would need to be discovered through future research.

Further study is also needed to explore the role of child gender in the development of self-esteem. The results of this study indicated that girls perceive themselves to be more socially accepted than boys. Coopersmith (1967) has found conflicting results. It may be that gender is closely related to personality variables such as temperament. Future research may wish to focus on gender issues to clarify their relationship to child self-esteem.


APPENDICES
APPENDIX A

CHILD BEHAVIOR AND PARENTING INVENTORY
This survey is designed to help us better understand mother-child relationships. Please answer all of the questions. If you wish to comment on any questions or qualify your answers, please feel free to use the space in the margins. Your comments will be read and taken into account.

Thank you for your help.

Department of Human Development and Family Sciences
Oregon State University
Corvallis, Oregon 97331

Continued
DIRECTIONS:
The following questionnaire is designed to gather information on the way your child behaves in different situations of everyday life. Each statement asks you to judge whether that behavior occurs:

1. ALMOST
2. ONCE IN
3. SOMETIMES
4. OFTEN
5. ALMOST
NEVER
A WHILE
ALWAYS

Beside each statement, please circle the number from 1 to 5 that best describes your child's behavior. The statements often involve making judgments (such as whether your child does something "quickly" or "slowly", for a "long time" and so on).

Some statements may seem similar to each other because they ask about the same situation. However, each one looks at a different area of the child's behavior. Therefore, your answers may be different in each case. Should you feel that some of the choices you make need more explanation because you are uncertain about that particular choice, or because you feel that your child's behavior in that area is special enough to call for more information, please circle the choice that seems to fit best, and then write a brief note in the margin or in the space provided at the end of this section.

Example: My child helps cheerfully when it is time to clean-up toys. 1 2 3 4 5

1. When playing with other children, my child argues with them. 1 2 3 4 5

2. My child looks forward to going to preschool. 1 2 3 4 5

3. My child is happy and pleased when telling about something that has happened during the day. 1 2 3 4 5

4. My child complains to me about other children if anything goes wrong. 1 2 3 4 5

5. If my child resists some procedure, such as having hair cut, brushed, or washed, he/she will continue to resist it for at least several months. 1 2 3 4 5

-2- Continued
<table>
<thead>
<tr>
<th></th>
<th>ALMOST</th>
<th>2</th>
<th>ONCE IN A WHILE</th>
<th>3</th>
<th>SOMETIMES</th>
<th>4</th>
<th>OFTEN</th>
<th>5</th>
<th>ALMOST ALWAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. My child is at ease within a few visits when visiting at someone else's home.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. If a favorite toy or game is broken, my child gets noticeably upset.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. If my child is shy with a strange adult he/she quickly (within a half-hour or so) gets over this.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. My child becomes easily upset when he/she loses a game.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
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<tr>
<td>10. My child has difficulty adjusting to rules of another household, if they are different from those at home.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>11. My child enjoys going shopping with parents.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
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<tr>
<td>12. My child now eats food that she/he used to dislike.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>13. When there is a change in daily routine, such as not being able to go to school, change of usual daily activities, etc., my child goes along with the new routine easily.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>14. When away from home with parents my child has a problem (even after a few nights) falling asleep in a new bed.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>15. In a new situation, such as a nursery, day care center, or school my child is still uncomfortable even after a few days.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>16. When with other children, my child seems to be having a good time.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</tbody>
</table>

-3- Continued
Is there anything else you would like to tell us in your own words about your child's behavior?

**DIRECTIONS:**

Next we are interested in learning more about how mothers and children interact. The following statements represent a variety of ways that mothers may interact with their children. Before you begin, have firmly in mind your preschooler. Please respond to the statements in the way which you feel best represents your behavior toward this child. Base your ratings on your own experiences with your preschooler over the last month.

Consider each statement separately. There are no "right" or "wrong" responses. In the space provided circle the number (1 to 5) that best describes how you see your behavior toward your child. Respond "5" if you think you always behave as described and "1" if you think you never behave that way. To the extent you are uncertain you behave that way, or if an item does not apply to your particular home situation, your response should be "3". Please make use of the full range of the scale.

<table>
<thead>
<tr>
<th>Rating Scale:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALMOST NEVER</td>
<td>ONE IN A WHILE</td>
<td>SOMETIMES</td>
<td>OFTEN</td>
<td>ALMOST ALWAYS</td>
<td></td>
</tr>
</tbody>
</table>

**TO WHAT EXTENT DO YOU . . .**

17. Explain to your child the consequences related to his or her behavior?  1  2  3  4  5

18. Go to your child quickly when you hear him or her sobbing?  1  2  3  4  5

19. Help your child to recognize another person's point of view?  1  2  3  4  5

20. Get out of bed at night to go to your child as soon as you hear him or her crying?  1  2  3  4  5

-4- Continued
<table>
<thead>
<tr>
<th></th>
<th>ALMOST</th>
<th>NEVER</th>
<th>ONCE IN A WHILE</th>
<th>SOMETIMES</th>
<th>OFTEN</th>
<th>ALMOST</th>
<th>ALWAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. Point out to your child the acceptable choices of behavior when he or she misbehaves?</td>
<td>1 2 3 4 5</td>
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<tr>
<td>22. Ask your child for his or her reasons when he or she misbehaves?</td>
<td>1 2 3 4 5</td>
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<tr>
<td>23. Make special efforts to stay with your child when he or she is ill?</td>
<td>1 2 3 4 5</td>
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<tr>
<td>24. Go immediately to your child when you see him or her hurt from a fall off a tricycle?</td>
<td>1 2 3 4 5</td>
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<td>25. Listen when your child tells you of a disagreement he or she has had with another child?</td>
<td>1 2 3 4 5</td>
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<tr>
<td>26. Go to your child quickly when you see his or her feelings are hurt?</td>
<td>1 2 3 4 5</td>
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<td>27. Explain to your child, when he or she behaves in an unacceptable way, your reasons for not approving that kind of behavior?</td>
<td>1 2 3 4 5</td>
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<tr>
<td>28. Change plans to attend a night meeting so you can be with your child if he or she becomes ill?</td>
<td>1 2 3 4 5</td>
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<tr>
<td>29. Give your child things he or she especially likes when he or she is ill?</td>
<td>1 2 3 4 5</td>
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<tr>
<td>30. Listen to your child when he or she is upset even though you feel he or she has nothing to be upset about?</td>
<td>1 2 3 4 5</td>
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<td></td>
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</table>

Is there anything else you would like to tell us in your own words about how you interact with your child?
DIRECTIONS:
Please answer the following questions about yourself and your family. Please circle the number of your response or fill in the space provided.

31. Child's gender
   1 MALE
   2 FEMALE

32. Child's Birthdate

33. Marital status:
   1 SINGLE/NEVER MARRIED
   2 LIVING TOGETHER/NOT MARRIED
   3 MARRIED
   4 SEPARATED/DIVORCED

34. Highest level of education achieved

   MOTHER    FATHER
   1 1       8TH GRADE OR LESS
   2 2       SOME HIGH SCHOOL
   3 3       GRADUATED FROM HIGH SCHOOL OR G.E.D.
   4 4       SOME-College (AT LEAST ONE YEAR) OR SPECIALIZED TRAINING.
   5 5       COLLEGE GRADUATE
   6 6       GRADUATE DEGREE (M.A., M.S., Ph.D.)

35. Your work status

   MOTHER    FATHER
   1 1       FULL-TIME HOMEMAKER
   2 2       STUDENT
   3 3       EMPLOYED OUTSIDE THE HOME

If employed outside the home please list your occupation

   MOTHER: JOB TITLE
   DESCRIPTION
   NUMBER OF HOURS WORKED PER WEEK

   FATHER: JOB TITLE
   DESCRIPTION
   NUMBER OF HOURS WORKED PER WEEK

Thank you for your participation! We greatly appreciate the time you took to complete this questionnaire.
APPENDIX B

PICTORIAL SCALE OF PERCEIVED COMPETENCE
AND SOCIAL ACCEPTANCE
(Sample Page)
APPENDIX C

COVER LETTER
Dear,

Raising healthy and happy children is a challenge. Do you ever wonder if you are doing what you can to help your child feel good about him or herself? Most parents have these feelings at some time. We are investigating the effects of child behavior styles on the parent-child relationship. We are asking mothers of children enrolled at the O.S.U. Park Terrace Child Development Center and the Linn-Benton Family Resource Center to assist us in this research.

We need to hear from as many mothers and children as possible. Your responses are very important. It will take about ten minutes to complete the research form.

In addition your preschooler will be asked to participate in a research activity. Children will be asked to look at a picture-book and select a picture of a child doing something "most like them." The activity will be administered during the preschool day. It takes about ten minutes and is considered fun to do by preschool children.

All questionnaires have been number-coded to preserve the confidentiality of participants throughout this research project. We are interested in broad patterns of ways mothers respond to children who have different behavior styles, and not individual cases. Your name will never be placed on the questionnaire or any of the materials published about this study.

The results of this research will be made available to Early Childhood Educators who often discuss with parents their concerns about the behaviors of young children. A summary of results will be sent to you upon completion of the research project. Please use the envelope provided to return your questionnaire to your child's school by May 25, 1990. In appreciation of your returning your questionnaire by May 25, you will receive a book to share with your child.

The information you provide will give valuable insight about how mothers and their preschoolers interact. Feel free to call us if you have any concerns about the research project. We would be very happy to answer any questions you might have.

Thank you for your assistance.

Sincerely,

Joanne Sorte,
Principal Investigator
Human Development &
Family Sciences
757-2466

Susan Doescher,
Co-Investigator
Human Development &
Family Sciences
737-1079