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# CHILDREN'S EMPATHY, PEER INTERACTION AND PARENTING STYLE: A DEVELOPMENTAL PERSPECTIVE

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ABSTRACT

CHILDREN'S EMPATHY, PEER INTERACTION
AND PARENTING STYLE:
A DEVELOPMENTAL PERSPECTIVE

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Theories which propose to explain the development of empathy in children often cite parenting variables and peer interaction as contributors to this complex emotion. The relationship between empathy, eight parenting dimensions (nurturance, responsivity to child input, non-restrictive attitude, type of parental control, controlling attitude, expectations for the child, consistency and organization), and three peer interaction variables (early childcare experience, after-school peer involvement and peer acceptance) were examined. Both state and trait empathy were analyzed. Trait empathy measures were divided into four subscales designed to tap the constructs of fantasy empathy, empathic concern, perspective taking and personal distress. Results indicated that children's empathy varied with subjects' age and sex. Different parenting and peer variables were associated with different empathy constructs. Children's developmental maturity level, different socialization experiences for boys and girls, demand characteristics, and measurement issues were cited as possible explanations for these effects.

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# INTRODUCTION

Empathy is one of the most complex of human emotions. It is popularly associated with the ability to "feel for" someone else's plight, to become emotionally involved with the problems of others, and to understand the feelings of others.

Empathy has long been recognized as an important component in children's social development (Sullivan, 1953; Piaget, 1965). Many researchers theorize that empathy plays a mediating role in altruistic and prosocial behavior and is associated with moral development (Hoffman, 1963; Eisenberg and Miller, 1987). It also is considered to be an inhibiting factor in the expression of aggression (Feshbach and Feshbach, 1969; Bryant, 1982). Furthermore, empathy, or emotional responsiveness in general, is viewed as an important component of human relatedness. The need to feel an emotional connectedness to others is considered critical for emotional well-being (Bryant, 1987).

This study examines the relation between various socializing experiences and the development of empathy in school-age children. Damon (1977) has discussed the "two social worlds" of children, observing that children's interactions with their peers are qualitatively different

than interactions with adults. The type of socialization a child receives from each of these two social worlds is unique. Parents are believed to foster the development of empathy in their children by using inductive discipline that encourages children to look at the effects of their behavior on others (Hoffman and Saltzstein, 1967). Peers seem to promote empathy more indirectly, teaching children to see other's viewpoints through the process of interaction and negotiation as equals (Piaget, 1965; Sullivan, 1953). This study looks at the relative influence that both of these types of socializing experiences have on empathy in school-age children.

## Definition of Empathy

What is empathy? Over the years, a host of definitions of empathy have been proposed by researchers. Some consider empathy to be a cognitive by-product of the development of role-taking or perspective-taking skills (Borke, 1971; Deutsch and Madle, 1975; Ford, 1979; Schantz, 1975; Underwood and Moore, 1982). As such they consider empathy to be primarily a cognitive or intellectual skill. They define empathy as the ability to recognize and understand the thoughts, perspectives and feelings of others (Borke, 1971; Deutsch and Madle, 1975). Many others recognize the problems involved in calling these cognitive skills "empathy" and have labeled them more specifically, calling the ability to discern and comprehend others' emotional

states "affective role taking," and the ability to understand another's cognitive states or processing "cognitive role-taking" (Ford, 1979; Schantz, 1975; Underwood and Moore, 1982).

There are many theorists, however, who prefer to define empathy as an affective experience. They consider empathy to be an affective or emotional reaction to another person's emotional state (Feshbach, 1978; Hoffman, 1977; Mehrabian and Epstein, 1972; Eisenberg and Miller, 1987). These researchers also recognize that affective responsiveness is frequently the result of cognitively identifying the other's state and understand that there are both affective and cognitive components to the empathic response (Deutsch and Madle, 1975; Hoffman, 1977).

Others, such as Bryant (1987), make a more significant distinction between the cognitive skill of perspective-taking and the affective experience of empathy.

> Social perspective-taking entails cognitive understanding of the feelings and motives of others and, as such, is an instrumental skill. Empathy, on the other hand, entails emotional responsiveness to the feelings experienced by others and, as such, is a personal subjective experience (p. 246).

Bryant's work, looking at the correlates of both empathy and perspective-taking led her to the conclusion that, "Empathy should not be equated with social perspective-taking either in its function or in its apparent developmental concommitants" (p. 246).

## Theories of Empathy

### Hoffman

Martin Hoffman (1984) has developed an elaborate theory of the development of empathy in which more mature forms of empathy emerge from the interaction between affective experience and cognitive development. He argues that human beings may be genetically endowed with the capacity for empathy and that this capacity may have evolved in our species to mediate altruism or helping behavior. This inborn empathic ability interacts with developing cognitive abilities to result in four levels of empathic responding.

The theory contends that during our evolutionary history our ancestors lived in a highly adverse environment under constant threat from starvation and predators. Those individuals who attempted to help each other were more apt to survive than those who had to face those dangers alone. Those who survived may have passed on a different biological make-up to their offspring. Hoffman believes that the capacity for empathy may have a biological foundation which has evolved to mediate helping behavior.

Hoffman proposes that there are four levels of empathic responding. Since a fully developed empathic reaction is an internal response to cues about another's affective states, the empathic reaction must depend heavily on the actor's cognitive sense of the other as distinct from himself, which undergoes dramatic changes developmentally. Hoffman's

levels are based loosely on Piaget's stages of cognitive and intellectual development.

The most primitive empathic response is called personal distress and has been demonstrated in several studies of infants' crying in response to another infant's cries (Martin and Clark, 1982; Sagi and Hoffman, 1976; Simner, 1971). The response at this stage cannot, according to Hoffman, actually be considered "empathic" because infants cannot understand the feelings of others and have no ability to separate themselves from others. Thus, the infants respond as though those feelings were their own.

Around the second year of life, children become aware of other people as distinct from themselves. At this second level they are capable of understanding that it is another person in distress, not themselves. However, they have difficulty keeping other people's points of view in mind and are still unable to determine others' internal states. They are likely, therefore, to assume that others' feelings are the same as their own.

It is only with the beginning of role taking at about 2 to 3 years of age that children reach the third level. They become aware that other people's feelings are different from their own and their empathic responses are based on those person's own needs and interpretations of events. Language allows children to empathize with a wider range of feelings that are more subtly expressed, as well as with people who

are not present.

By late childhood, children can appreciate that others' feelings occur within a larger set of experiences and are able to empathize with a person's or a class of person's whole life experience. Children at this stage begin to be concerned about the general conditions of others, their poverty, oppression, illness or vulnerability, not just their momentary state. This emerges as the child comes to see himself and others as continuing persons with separate histories and identities.

Thus, in Hoffman's theory, although empathy is an affect, it has a significant cognitive component. Inborn empathic affect combines with four broad social-cognitive achievements to result in four distinct developmental levels of empathic responding. According to Hoffman, age increases in empathic ability are largely due to children's increasingly sophisticated role-taking abilities.

Multi-Construct Models of Empathy

Most researchers in the field today agree with Hoffman in that empathy is not considered a single construct, but rather is believed to be composed of several different constructs. One of the first multi-construct models of empathy was developed by Norma Feshbach (1978). In her three component model, an empathic response must include: 1) the ability to discriminate and identify the emotional states of another, 2) the capacity to take the perspective

or role of another, and 3) the evocation of shared affective responses.

Feshbach and Roe (1968) developed one of the most commonly used instruments for assessing empathy in children - the Feshbach and Roe Affective Situations Test for Empathy (FASTE). The FASTE measures state (situational) empathy and consists of eight stories, each accompanied by 3 slides depicting the emotions of sadness, anger, fear and happiness. After exposure to each scenario the child is asked to indicate how he or she feels at that time.

The validity of this measure has been questioned by some researchers, who suggest that the procedure of repeatedly asking a child how he or she feels introduces demand characteristics, and that the short, hypothetical stories used in this instrument may not be sufficient to elicit empathy in young children (Eisenberg and Lennon, 1983; Hoffman, 1982).

Other early measures of empathy were questionnaires designed to assess empathic responding across a range of settings. Examples of measures of this type of empathy, often referred to as trait or dispositional empathy, include Mehrabian and Epstein's (1972) scale of emotional tendency, Bryant's (1982) modification of Mehrabian and Epstein's scale for children, and Stotland's (Stotland, Matthews, Sherman, Hansson, and Richardson, 1978) adult-oriented Fantasy-Empathy Scale. While these paper and pencil

measures are fairly successful in measuring an individual's enduring tendency to respond empathically, in their attempt to tap a range of responding they result in measuring more than a single construct. These measures fail to differentiate among the constructs of sympathy, susceptibility to emotional arousal, perspective taking, appreciation of the feelings of unfamiliar others, susceptibility to emotional contagion, fantasy empathy, and others. Instead, they label the single score "empathy."

Davis

Only Davis (1980) has created a multi-construct model of empathy with separate scales designed to differentiate among separate constructs. Each of his four constructs concern responsivity to others, but they differ in important ways and are clearly distinguishable from each other. They are 1) Perspective Taking, 2) Fantasy Empathy, 3) Empathic Concern, and 4) Personal Distress. Perspective Taking is "the tendency to spontaneously adopt the psychological point of view of others." This is similar to the concept of cognitive or affective role-taking. Fantasy Empathy refers to the tendency of people to "transpose themselves imaginatively into the feelings and actions of fictitious characters in books, movies, and plays." Empathic Concern is "other-oriented" feelings of sympathy and concern for unfortunate others, and Personal Distress is "self-oriented" feelings of personal anxiety and unease in tense

interpersonal settings. Davis developed a questionnaire assessment of empathy that he called the Interpersonal Reactivity Index (Davis, 1980), which includes these four separate subscales.

Davis (1983) found moderate correlations among the subscales of the IRI, indicating that they are related to each other. The strongest relationships were a positive correlation between perspective taking and empathic concern, and a negative correlation between perspective taking and personal distress. Although they were related, Davis also demonstrated that each subscale related in unique ways to other psychological measures. For instance, perspective taking was associated with better interpersonal functioning, higher self esteem, and relatively little emotionality. Empathic concern showed no relationship to social competence or self esteem, but there was a clear relationship between emotional reactivity and self-less concern for others. Personal distress was associated with heightened emotional vulnerability and a strong tendency toward chronic fearfulness. Fantasy empathy was related to verbal intelligence and was less strongly related to other-oriented sensitivity than empathic concern. Davis suggests that these results support the validity of calling the four subscales on the IRI separate constructs.

## Developmental Trends in Empathy

Davis' distinction between separate empathy constructs is critical if one wishes to look at empathy developmentally, for each subscale can be predicted to follow different developmental patterns. Perspective taking can be expected to increase with age as a natural consequence of a child's cognitive development (Hoffman, 1984; Piaget, 1965). Research examining the relation between perspective taking and age has supported this prediction. Older children have better perspective taking skills than younger children (Bryant, 1985; Rothenberg, 1970; Kurdek and Rodgon, 1975).

The connection between empathic concern and age is less clear. Hoffman (1984) believes that empathic concern increases with age, but does so indirectly, through the cognitive development of perspective taking. The ability to respond emotionally has not changed, although the circumstances that elicit this response have increased due to a better cognitive understanding of the needs and emotions of others.

A problem with Hoffman's theory is that his measurement of empathy did not diffentiate between empathic concern and perspective taking. We have no way of knowing whether increases in empathy with age are due to increases in perspective taking, empathic concern, or both.

Brenda Bryant (1985) argues that when empathy is

defined in strictly emotional terms, there is no relation between age and empathic arousal.

> The development of empathy appears more characteristically to entail a change in the particular stimuli to which one is emotionally responsive rather than a absolute increase in the number of stimuli that elicit empathy per se (p.250).

Examples of empathic responding in young children have been demonstrated, (Radke-Yarrow, Zahn-Waxler, and Chapman, 1983; Strayer, 1980) indicating that advanced cognitive abilities are not necessary for experiencing empathic concern. A strong connection between age and empathic concern should not be expected, although a moderate relationship could be predicted based on the relationship between perspective taking and empathic concern.

Personal distress is an empathic response which is self-oriented. The distress of others causes the actor to feel anxiety, uneasiness, and even panic. Studies of personal distress in newborns indicate that it is probably the most primitive form of emotional responsiveness to the distress of others, starting as early as the first few days of life when infants cry in response to another infant's cries (Martin and Clark, 1982; Sagi and Hoffman, 1976; Simner, 1971). Davis (1983) argues that feelings of personal distress should decrease with age as children become better able to separate themselves from others, and their feelings of personal unease are transformed into more other-oriented feelings of sympathy and concern for others.

Children also are likely to feel less personal distress as they become increasingly competent and autonomous and are better able to control events in their own lives as well as offer assistance to others in need. Thus, a negative relationship between age and personal distress should be expected.

Fantasy empathy is an area that has received relatively little attention in the literature. Fantasy empathy involves the tendency to respond to the feelings of fictious characters in books, movies or plays. Stotland, Matthews, Sherman, Hansson, and Richardson (1978) have found that individuals high in fantasy empathy display greater physiological arousal to films with emotional content and have a greater tendency to help another (at least among first borns) than those low in fantasy empathy. Developmental differences in fantasy empathy have not been examined by researchers in the past, therefore, no specific predictions about the relationship between fantasy empathy and age are made.

## Sex Differences in Empathy

Research concerning sex differences in empathy are mixed and highly related to the method used to assess empathy (Eisenberg and Lennon, 1983). Sex differences favoring females are strongest when self-report or other-report measures are used (Barnett, Howard, King and Dino, 1980; Bryant, 1982). Few sex differences are found when

empathy is assessed with nonverbal measures, such as physiological or facial/gestural measures (Hamilton, 1973). This pattern of results suggests that demand characteristics influence responses when it is clear to subjects that the instruments are designed to measure empathy. Thus, subjects may bias their responses so that they are congruent with traditional sex role stereotypes suggesting that females are more empathic than males.

One nonverbal measure of empathy that is an exception in this general pattern of findings is reflexive crying in newborns. Two studies have found that female newborns will cry more than male newborns in response to another infant's cry (Simner, 1971; Sagi and Hoffman, 1976) Martin and Clark (1982), however, did not report finding sex differences in reflexive crying in newborns.

Evidence of sex differences in reflexive crying in newborns suggests that there may be an innate tendency for empathy favoring females. This is not a clear finding, however, and reflexive crying in newborns has not been demonstrated to be a predictor of any type of later empathic responsiveness.

Although the basis of sex differences in empathy is not clear, there is little doubt that females report feeling more empathy that males, especially in adult samples (Bryant, 1982; Mehrabian and Epstein, 1972; Davis, 1980). Parents and teachers also report that girls are higher in

empathy (Barnett, Howard, Melton, and Dino, 1982) and altruism (Zarbatany, Hartman, Gelfand, and Vinciguerra, 1985) than boys. Demand characteristics probably account for at least a portion of these findings.

Sex differences in samples of children have been weaker than adult samples. Eisenberg and Lennon (1983) report that children score higher in empathy when the experimenter is the same sex, and in most studies of empathy, the experimenters have been female. Other than reflexive crying, the only measure that has consistently favored girls in empathy has been the FASTE, Feshbach and Feshbach's picture-story measure of empathy. As previously noted, this measure has been criticized for its inherent demand characteristics (Eisenberg and Lennon, 1983; Hoffman, 1982) which may explain the sex differences found.

No sex differences in empathy have been found for children in the area of affective role-taking (the ability to recognize another's emotional state) according to a review of 12 reports by Hoffman (1977). Furthermore, there is no evidence of consistent sex differences in the mode of responding to another's distress (Radke-Yarrow and Zahn-Waxler, 1984), or in using empathic reasoning about helping dilemmas (Eisenberg-Berg, 1979).

Thus, the findings on sex differences in children's empathy are inconclusive. It is predicted, however, that girls will have higher empathy scores than boys in this

study because of the demand characteristics in self-report and parent-report measures of empathy and because the interviewers are all female.

## State Versus Trait Empathy

The picture/story assessments of empathy, such as the FASTE, differ in an important way from most questionnaire measures of empathy. Picture/story methods attempt to induce empathic responding (to a specific, hypothetical story character) and then ascertain the subjects' own emotional state at that time by asking them how they feel. These empathy scores reflect emotional responding to a very specific situation. Other assessment techniques for measuring state, or situational empathy, include self-report in simulated experimental situations (Zahn-Waxler, Friedman, and Cummings, 1983), physiological indices (Sterling and Gaertmer, 1984), and facial, gestural, or vocal indices (Eisenberg, McCreath, and Ahn, 1985).

State empathy is primarily an affective response which is seen at all ages and is believed to be inborn (Hoffman, 1984). State empathy is not a cognitive response, although it is affected by changes in perspective taking skills. As children's perspective taking increases, the distress cues from others become increasingly salient. Thus, state empathy is expected to be moderately correlated with age, although it is so indirectly, through increases in cognitive ability.

Questionnaire methods of empathy attempt to assess a range of emotional responding over a variety of situations. Thus, their purpose is to measure people's general tendencies to respond in an empathic manner. Trait, or dispositional, empathy can be measured by questioning the subjects themselves or by obtaining information from others, for example, using parent or teacher ratings. Trait empathy includes both cognitive and affective components.

Distinguishing between state and trait empathy becomes important when the measurements of empathy are being correlated with other variables or being used to predict behavior. Just because individuals experience empathic reactions in one situation does not necessarily mean they will do so in another situation. Thus, state empathy should be more successful than trait empathy at predicting behavior theoretically associated with empathy. On the other hand, broad socialization variables, such as parental or peer influences, would be expected to be more highly related to trait empathy measures, since they are less specific and attempt to measure empathy over a variety of situations.

For example, it is widely accepted among psychologists that empathy is a determinant in prosocial behavior (Eisenberg and Miller, 1987; Hoffman, 1984). This theoretical relationship has proven to be difficult to demonstrate empirically, however. Eisenberg and Miller, in their 1987 review of the literature on the association

between empathy and prosocial behavior, concluded that the strength of the relationship between these variables is largely a result of the measure of empathy used. The highest correlations were found when the measures of empathy were self-report in simulated experimental situations, physiological indices, and facial, gestural, or vocal indices - all measures of state empathy. Lower correlations were found for questionnaire measures of trait empathy. State empathy is clearly a superior measure if the goal is to predict behavior in a specific situation. However, measures of trait empathy may be better for predicting more general behavioral trends.

## Empathy and Peer Interaction

### Piaget

The role of peers in children's cognitive development has been a major tenet of Piaget's (1965) theory. It is through interaction with age-mates that children begin to move away from egocentric thought to the ability to take the perspective of another. Since perspective taking is an important component of empathy, peer interaction is believed to foster the development of empathy.

According to Piaget, social interaction with age-mates fosters cognitive conflict whenever the children's viewpoints do not match. This creates disequilibrium, a mismatch between a child's internal cognitive structures and the environment. The disequilibrium produces internal

structural changes or accommodations in order to assimilate the new information. In Piaget's view, this is the force behind cognitive development. The process of disequilibrium is more likely to take place among peers rather than among children and adults because when conflict occurs among peers, solutions are more likely to be worked out by "negotiation." This social coordination can result in cognitive development if the consensus that emerges is achieved through a process of active cognitive restructuring in the participants. When with peers, children must work together to create their own system of understanding which is open to new discoveries and modifications and is based on equality and reciprocity. The process by which children acquire social meaning is through cooperation. Thus, children are both agents and recipients of instruction. According to Piaget (1965), "Reciprocal interaction between equals becomes accepted by them as a method of verification" (p.97).

Conflicts with adults are generally resolved by compliance to the greater power of the adult. Behavioral compliance to adults does not require internal cognitive adjustment and, therefore, does not result in cognitive development. A child comes to understand the order of social reality from adults by having it handed down to them. Adults explain and children try to learn. The process is very one-sided. In this type of traditional socialization,

the child is encouraged to simply adopt the view of the adult.

Some support for Piaget's theory comes from the work of Eisenberg, Lundy, Shell, and Roth (1985) who have found that although children are likely to use authority and punishment justifications to explain compliance with adult requests, they are more likely to attribute compliance to peer requests to their concern for the needs and desires of others. Therefore, "performance of adult-initiated compliant acts may be less likely than peer-initiated actions to serve as a mechanism for the socialization of further internal or empathy-based prosocial tendencies" (p. 326).

In one of the few studies specifically examining the relationship between peer relations and empathy, Bryant (1987) found that peer relations predicted children's perspective taking, but not empathy (defined affectively). Thus, the theory that peer interaction would promote perspective taking has found some support, but the relation between peer interaction and empathic concern is less clear.

Sullivan

Sullivan (1953) has also written about the important role that peers plays in children's social development. He conceptualizes social maturity in terms of interpersonal understanding. Peer relationships, based on equality and mutuality, are critical in promoting that understanding.

Interactions with peers lead to mutual understanding that allows children to discover individuals as persons sharing common motives, feelings, and hopes. Both Sullivan and Piaget argue that these types of peer interactions are one of the ways that children recognize others as actual persons similar to themselves. Most children do not view their parents in this manner until adolescence. Sullivan argues that developing mutual understanding influences emotional development. "Once peers discover that they have jointly formed a view of social reality they feel a need to be mutually sensitive" (Sullivan, 1953).

Sullivan provides a theoretical basis for the hypothesis that peer interactions would be related to the development of empathic concern. Little empirical research exists that examines the relationship between peer interactions and empathic concern (separating out the effects of perspective taking). Bryant (1987) is an exception, and her findings (as noted above) suggest that peer interactions do not promote empathic concern.

Neopiagetian Theorists

Piaget's theory provides few guidelines for ascertaining the amount of experience with peers that is sufficient for the development of perspective taking or the age at which such experience is most beneficial. Neopiagetian theorists have, however, considered this issue.

Age and Peer Experience

Although peer contact may, in fact, entail exposure to different views, according to Piaget, children younger than about 6 do not have the cognitive maturity to recognize perspectives other than their own, and therefore would not be influenced by them. LeMare and Rubin (1987) made specific predictions about the ages at which peer involvement would be most likely to be related to perspective taking. They believed that social experience would not foster the development of perspective taking in preschool children. However, children in the early school years were believed to be better able to appreciate points of view other than their own, and therefore, social experience at their age would lead to greater perspective taking.

Their results supported their hypothesis, revealing that younger children who lacked experience with peers did not deviate from their more socially experienced age-mates in terms of perspective taking development. However, school-aged children who were lacking peer experience showed delays in perspective taking skills relative to their more sociable age-mates.

Although LeMare and Rubin (1987) theorized that early peer involvement would not promote perspective taking, other researchers have hypothesized about the importance of early peer involvement in some domains related to empathy. For

example, there appears to be an implicit assumption in much of the work on social competence and cooperation that both affective perspective taking skills and empathizing underlie, in part, the development of interpersonal competence in social interactions (Marsh, Serafica, and Barenboim, 1981; Shure, 1982). Some research has shown that children with more social experience with peers are more socially competent (Howes, 1980, 1988; Hartup, 1983; Mueller and Brenner, 1977).

Howes' (1988) research suggests that it is specifically those children who have had early experience with a stable group of peers over a period of years that are the most socially competent. The children in her study were preschoolers who had been in a daycare center with the same group of children since they were one year old. Other studies looking at children with daycare center backgrounds have found that they are more comfortable interacting with peers than children without early peer experience (Clarke-Stewart, 1984), more advanced in their social development, more sophisticated in their understanding of friendship, and more mature in their dealings with peers and adults (Larner, Gunnarson, Cochran, and Hagglund, 1989).

Not all studies looking at early childcare experiences' effects on the social development of children have been positive, however. Some have found that increased exposure to peers is associated with higher levels of aggression

(Belsky, 1988; Schwartz, Strickland and Krolick, 1974).

In sum, there is a lack of agreement in the literature on the relative importance of early childcare experiences on children's development of empathy. However, remaining faithful to the Piagetian approach, it is hypothesized that early peer experience will not be related to children's perspective taking. Based on the social competence literature, however, it is predicted that early peer experiences will be positively related to children's empathic concern and negatively related to children's personal distress.

Amount of Peer Experience

Another question addressed by neopiagetian theorists is the relative importance of the amount of time spent in peer interaction on the development of empathy. Should children who spend the most time with peers be expected to have the highest perspective taking? One view is the "threshold hypothesis" offered by Hollos and Cowan (1973). These authors suggest that some minimal level of peer-interactive experience is sufficient for the development of perspective taking, and beyond this threshold, the sheer amount of peer interaction engaged in will not affect perspective taking development. In other words, as long as children have some minimal amount of exposure to peers, perspective taking will develop. Increased amounts of peer experience above this minimal amount will not result in greater perspective taking

skills.

LeMare and Rubin's (1987) research supports the threshold hypothesis. In their study, Isolate school-aged children were significantly poorer perspective takers than their Average or Sociable peers, while the Average and Sociable children did not differ from each other.

The threshold hypothesis, although it has received some support, is probably a too simplistic model for understanding the role of peers in the development of perspective taking because it does not address the issue of the context of the interaction. In other words, in what type of peer relationship does increased peer interaction promote perspective taking?

The Context of Peer Experience

Some research suggests that competitive interactions seem to foster heightened self-concern and interfere with a child's inclination to respond to another's needs (Rutherford and Mussen, 1968; Barnett, Matthew and Howard, 1979; Barnett and Bryan, 1974; Barnett, Matthew and Corbin, 1979. Interactions with peers in a competitive context, such as sporting teams, therefore, would not be expected to promote perspective taking.

Cooperation, on the other hand, probably promotes the development of perspective taking because it emphasizes similarity, and requires mutuality and role taking. Marcus, Telleen, and Roke (1979) found a positive and significant

relation between cooperation and empathy in preschool children.

According to Piaget, the process through which peers influence perspective taking is through conflict negotiation. Working as equals to solve conflicts requires consideration of others' viewpoints, which is what fosters advanced perspective taking skills. Thus, it stands to reason that peer interactions will only lead to the development of perspective taking if children are allowed to work through conflicts on their own.

In many settings where peers congregate, adults are present. To the degree that the adults intervene in conflict situations, they take away opportunities for the children to develop their perspective taking skills. Structured settings with many rules may have the same effect. Conflicts are settled through deference to the rules rather than through negotiation. In general, it is hypothesized that peer interactions in settings where adults are present and acting in a supervisory position will not promote perspective taking as much as peer interaction in an unstructured and unsupervised setting such as "hanging out" on a street corner, playing football in the backyard, or exploring the neighborhood with friends.

In fact, empathy is hypothesized to develop specifically in children's friendship relationships. The peer relationships described by Piaget (1965) and Sullivan

(1953) have all the characteristics of friendship relationships, i.e. trust, mutuality, sensitivity, etc. It is when children are with friends that they have opportunities for intimacy, cooperation, conflict, and successful negotiation. Howes' (1983) research suggests that "complex social interaction skills may be learned best in stable dyads and that social skills develop within a friendship relationship."

Since many of children's interactions involve peers who are not necessarily their friends, it is not expected that simply the amount of peer interaction will lead to higher empathy. The interaction must take place in a friendship relationship. It is predicted that those children who enjoy many friendships will have the greatest perspective taking skills. Children who feel liked and accepted by their peers have the most opportunities for the kind of peer interactions that would lead to the development of perspective taking.

In sum, the question asked in previous work about how much peer interaction is sufficient for the development of perspective taking was too simple of a question. This study will examine not only the amount of peer interaction, it will also consider the context of the peer interactions and the children's perceptions of their peer acceptance.

## Empathy and Parenting Style

The parents' role in the socialization of children's empathy is of interest to many psychologists. Some of the hypothesized early antecedents of empathy include secure attachment between caretaker and infant (Sullivan, 1940; Mussen and Eisenberg-Berg, 1977) and parental affection (Hoffman, 1982; Eisenberg-Berg and Mussen, 1978; Barnett, King, Howard, and Dino, 1980).

Children's empathy has frequently been found to be related to parental childrearing practices and discipline styles (Hoffman and Salzstein, 1967; Barnett, King, Howard and Dino, 1980). Hoffman (1977) found that moral internalization and more mature forms of empathy are fostered by parents' frequent use of inductive disciplinary techniques. These parents give reasons and explanations for discipline and they point out the harmful consequences for others as a result of a child's misbehavior. Power assertive methods, including physical punishment, deprivation of privileges, and threats are related to less sympathy, helping or generous behavior, and empathy (Hoffman, 1977).

The positive effects from inductive discipline have been further demonstrated by Zahn-Waxler, Radke-Yarrow and King (1979), who found that heightened emotional responsiveness and prosocial behavior in young children was associated with mothers who frequently 1) conveyed a clear

cognitive message to the child of the consequences of his or her behavior for the victim (inductive discipline), and 2) reinforced this message with a display of intense emotion and statements of principles and expectations for the child's behavior.

Baumrind (1971) found that the parents she labeled "authoritative" had children who behaved the most prosocially. These parents have firm rules, communicate clearly what is expected of the child, demand responsible high-level performance and offer warmth and unconditional commitment to the best interests of their child. Although Baumrind did not look specifically at empathy, her findings are consistent with those of Hoffman (1977) because of the widely accepted conceptual relationship between empathy and prosocial behavior (Hoffman, 1963; Eisenberg and Miller, 1987). Thus, it is expected that authoritative parenting, in addition to promoting prosocial behavior, will be related to higher levels of children's empathy.

This authoritative parenting style contrasts with Baumrind's two other parenting styles, authoritarian control and permissive non-control. Authoritarian control is characterized by the use of physical punishment, a high degree of control, high expectations for the child, and low levels of warmth. Permissive parents exert little control over their children, rarely punish them, and are very warm and accepting. Both of these types of control tend to

produce less social and academic competence in children. It is predicted that authoritarian and permissive parenting styles would be negatively related to empathy.

Few researchers have studied the role that various parenting styles have had on the development of the different constructs of empathy, eg. perspective taking, personal distress, etc. Some parental characteristics, such as nurturance, may be related to children's empathic concern, but not to fantasy empathy, for instance. Bryant (1985) took the first step in this direction by looking at parenting characteristics and their relation to both empathy (defined affectively) and social perspective taking. Although some variables were related to both empathy and social perspective taking, many were related to only one or the other. This suggests that the literature on parenting and empathy could be enhanced by using multi-construct measures of empathy.

Data from Bryant's (1985) study indicated that maternal support was not related to children's empathy or social perspective taking skills, although paternal support was related to social perspective taking. She also found that the development of empathy was related to mothers' expressiveness in response to their children's stress. Paternal indulgence and protectiveness were negatively correlated to empathy and social perspective taking, respectively. Bryant further found that maternal punishment

was negatively related to social perspective taking, although setting limits was associated with higher empathy and social perspective taking.

Combining the work of all these researchers, those parenting variables believed to be positively associated with children's empathy include affection, reasoning, high expectations, and firm rules. Variables believed to be negatively associated with empathy include physical punishment, deprivation of privileges, threats, high amounts of control, lack of control, and permissiveness.

## Summary

This study examines the socialization experiences of children and their relation to the development of empathy. There is a strong theoretical base for the role of peers in children's development of empathy (Sullivan, 1953; Piaget, 1965) but little empirical research has been done. This study will test neopiagetian theories about the ages at which peer interactions will be effective in fostering children's perspective taking, as well as the threshold hypothesis, concerning how much peer interaction is necessary for children's perspective taking to develop. Lacking in the literature is any work specifically looking at the context of the peer interactions. This study distinguishes between peer interactions in the contexts of organized peer groups, friendship relationships, and childcare settings. Furthermore, this study specifically

measures the children's feelings of acceptance among their peers. It is predicted that empathy develops specifically in the context of friendship relationships. This area has been neglected in the empathy literature.

The role of parents in the development of children's empathy has been researched to a greater extent than the role of peers, yet there are still gaps which need to be filled. With the multi-construct measure of empathy being used in this study, I hope to discover if different childrearing variables will be associated with different subscales of empathy. Measuring perspective taking, empathic concern, personal distress, and fantasy empathy separately will provide more detailed information about the ways in which different parenting styles influence children's empathy.

## STATEMENT OF HYPOTHESES

I. The relationship between empathy and age will vary depending upon which type of empathy is measured.

   A. Perspective taking will be positively correlated with age.

   B. Empathic concern will be positively correlated with age, but to a smaller degree than perspective taking.

   C. Personal distress will be negatively correlated with age.

   D. State empathy will be positively correlated with age, but to a smaller degree than perspective taking..

II. Girls will have higher empathy scores than boys on all empathy measures.

III. The relationship between children's early peer experiences and empathy will vary depending upon which subscale is used.

   A. Early peer experience will not be correlated with perspective taking.

   B. Early peer experience will be positively correlated with empathic concern.

   C. Early peer experience will be negatively correlated with personal distress.

IV. The relationship between the amount of peer experience and perspective taking will vary depending upon the context of the interaction.

   A. Interactions with friends will be positively correlated with perspective taking.

   B. Involvement with organized peer groups will not be correlated with perspective taking.

C. Involvement in childcare will not be correlated with perspective taking.

V. Peer acceptance will be positively related to perspective taking, empathic concern, and state empathy.

VI. Parents' nurturance, responsiveness, reasoning, and expectations will be positively correlated with perspective taking, empathic concern, and state empathy.

VII. Parents' physical punishment, material or social consequences, yelling, and ignoring discipline situations go will be negatively related to perspective taking, empathic concern, and state empathy.

# METHOD

## Subjects

The subjects were 112 children, 76 girls and 26 boys, who were divided into three age groups: 5-6 years, 7-8 years, and 9-10 years. Of the 5-6 year olds, there were 14 boys and 22 girls. The 7-8 year old group consisted of 18 boys and 30 girls, and there were 6 boys and 22 girls in the 9-10 year old group. Mean ages for the three groups were as follows: 1) 6 years, 3 months, 2) 8 years, 0 months, and 3) 9 years, 8 months. They were recruited from the Lansing and East Lansing, Michigan public school systems and Thomas Aquinas Catholic grade school. Although the sample included some children from various ethnic backgrounds, the majority of subjects came from the neighboring middle class, University community.

Approval for the entire study was obtained from the University Human Subjects Committee, the Lansing and East Lansing School Districts, and the principals of each school.

Letters asking for volunteers for the study were sent home with students to their parents (See Appendix A). The students were asked to return the enclosed permission slips to the school. Those parents who expressed an interest were then contacted by phone to schedule a time for their

session, which lasted approximately one hour. This study was part of a larger research project exploring issues dealing with children's friendships. For that reason, the study required that the child and a same-sex friend who was the same age both participate. The parent of at least one child was asked to accompany the children to the laboratory playroom on the Michigan State University campus for the study.

Parents of both children were sent consent forms indicating their agreement to participate (See Appendix B). The agreement required that parents get their children's verbal assent to participate, as well. In accordance with the ethical standards for research with children developed by the American Psychological Association, the parents were informed that participation in the study was voluntary and they were free to withdraw at any time, that the results of their child's individual performance would be kept confidential, that anonymity would be preserved in the analysis of the data, and only group results would be discussed.

Procedure

When parents and children first arrived at the laboratory playroom they were allowed five minutes to get accustomed to the room and to have an opportunity to play with the toys. The room was approximately 8 by 16 square feet with a large one-way mirror at the far end. A table

with several small chairs was arranged in the middle of the room. Included in the room were such toys as playdough, cars, small figurines, legos, etc.

After the five-minute warm-up period, the parent(s) were taken to another room to fill out questionnaires on their childrearing style, their child's experience with other peers, their empathy and their child's empathy. Meanwhile the two children were interviewed separately about their empathy and self-concept. While they were separated, the child whose parent originally agreed to be in the study was given an empathy-inducing manipulation, consisting of showing the child pictures of sick children in the hospital. The child was told that the children were often sad and lonely because they were away from their friends and family. He or she was then asked to think about how those children felt and was encouraged to talk about the feeling of the children in the hospital. The experimenter then followed up by asking the child how he or she felt after looking at the pictures. The child was shown a set of five faces ranging from a broad smiling face to a face with a huge frown and was asked to point to the one that best described how he or she felt. This was the state empathy measure. State empathy scores ranged from 0 (very happy) to 4 (very sad). A copy of the state empathy scale is pictured in Appendix C.

Only half the children were given the state empathy measure because another portion of the study examined how

the child who had seen the pictures of the children in the hospital would use that information to persuade his or her friend to be prosocial (make cards for the children in the hospital).

Following the empathy manipulation and state empathy measure, the experimenter explained that one of the activities available was to make cards for the sick children in the hospital. The child was told that the cards made the children in the hospital feel better and cheered them up and that the more cards they made, the more children they could help cheer up. Then the child was told that their friend would be coming back to the playroom soon and that he or she did not know about the children in the hospital. The experimenter asked the child to think about what he or she could do or say to persuade his or her friend to make some cards for the sick children. When both children were reunited in the playroom, they were told that they would have 15 minutes during which they could do anything they chose. The children were shown a timer set for 15 minutes and told that when the time was up, the experimenters would return along with their parent(s) and the study would be completed.

The entire exchange was videotaped from behind a one-way mirror. The number of cards made by each child as well as the amount of time spent working on the cards was observed and recorded. After the 15 minutes had elapsed,

the experimenters and parents rejoined the children. At this time the parents were debriefed, the study was explained and any questions they had were answered.

All cards that were made by the children were given to children staying at a local hospital.

Instruments

Questionnaires were used to measure empathy, self-concept, peer experience, and parental childrearing techniques.

Empathy

Children's trait empathy was assessed with a child interview and a parental questionnaire. Thus, both self-reports of empathy and parents' ratings of their children's empathy were obtained. The empathy questions were based upon the Davis (1980) Interpersonal Reactivity Index (IRI) (See Appendix D). This measure was selected as a model because of its multi-construct design which allowed empathy to be divided into four subscales: fantasy empathy, perspective taking, empathic concern, and personal distress.

Another reason for choosing this measure was because it had established reliability (Davis, 1980) , as well as both convergent and discriminant validity for the four subscales (Davis, 1983). A factor analysis of the measure showed that the factors loaded on the four dimensions predicted. Internal consistency was good, with coefficient alphas above .70 for all subscales, and test-retest reliability was

adequate, with alphas above .60 each time (Davis, 1980).

The scale was modified in the following ways. For parents' ratings of their children's empathy the instructions of the IRI were changed so that instead of describing themselves, parents were asked to describe how they believed their child would respond. For instance, the statement, "I really get involved with the characters in a story," was rewritten to read, "She really gets involved with the characters in a story." Different questionnaires were available for male and female children. The scale ranged from 0 (Does not describe her well) to 4 (Describes her very well). The questions are presented in Appendix E.

For the children's interviews, the Davis scale was modified so the language and content material would be appropriate for children. For example, a question on the Davis scale reading, "When I see someone being taken advantage of, I feel kind of protective towards them," was rewritten to read, "Some kids feel sorry for their classmates who get in trouble from the teacher. Do you feel sorry for those kinds of kids?"

After each statement was read, the child was asked, "How much is this like you?" They were instructed to point to a Likert-style graded wooden scale ranging from 0 to 10. This was used in order to give children a concrete way to visualize their responses. Pilot studies indicated that children as young as five were able to understand and

respond appropriately to the questions in this fashion. The interview questions and their instructions are presented in Appendix F.

Peer Interaction

A peer experience questionnaire developed by the author gathered information from parents about their children's early experiences with childcare and preschool, their friendships, and their after school peer group activities, current childcare experiences. This measure is presented in Appendix G.

Two types of peer interaction were assessed with this questionnaire. The first, early peer experience, measured children's ages when they first attended childcare facilities, the number of hours per day and days per week the children attended, and the total number of months that children attended before kindergarten. Second, after school peer involvement, assessed the amount of time (in hours per week) that children were currently spending with friends outside of school, with after school peer groups such as sports teams, scouting, etc., and in after school childcare arrangements.

Peer Acceptance

Further peer information, a measure of peer acceptance, was gathered using the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter and Pike, 1984). This measure was chosen because it

included a subscale which specifically measured the children's perceptions of their peer acceptance and because the measure had established reliability and validity.

The reported reliability values of the peer acceptance subscale were quite high, ranging from .75 for kindergartners to .78 for first graders and .83 for second graders (Harter and Pike, 1984).

Harter and Pike (1984) demonstrated the subscale's discriminant validity by giving it to children who had recently moved to a new school and had attended it for less than two months and comparing their scores to the scores of children who had been in the school a minimum of one year. The scores of the "new" children were significantly lower than the comparison group of children.

The pictorial format of this scale allowed specific activities to be depicted concretely in sets of two pictures for each item. Children were asked to point to the picture which was the most like them. For example, a set from the peer acceptance subscale read, "This girl has lots of friends to play with. This girl doesn't have many friends to play with. Which girl is most like you?" The child was told to respond by pointing to the appropriate picture. The child's response was followed by, "Is that girl a lot like you or a little like you?" The children answered this question by pointing to either a large circle or a small circle under the appropriate picture. In this way, children

could get scores ranging from 1 to 4 for each question. Six items comprised the subscale and the child's peer acceptance score was made by adding up the scores from each of the six items. A sample item picture from the peer acceptance subscale is included in Appendix H.

Parenting Style

Data on parents' childrearing techniques were measured using the Parenting Dimensions Inventory (PDI) (Slater and Power, 1987). This measure had established reliability, internal consistency, and validity and assessed a variety of childrearing variables.

Reliability and internal consistency for the PDI were found to be at acceptable levels (no values were reported) in a sample of 140 American parents (Slater and Power, 1987). The factor structure of the PDI was replicated and the various measures of the original model fit. As for validity, the PDI has been shown to predict parent ratings of child behavior problems and child social competence in four samples (Slater and Power, 1987). In each sample, parent ratings on the Child Behavior Checklist (Achenbach and Edelbrock, 1983) were successfully predicted from PDI scores. Further evidence for validity came from Kelly (1988) who found that parental attitudes assessed on the PDI were correlated with similar measures derived from an independently administered childrearing interview.

The PDI measures eight dimensions of parenting: three

assessing parental support (nurturance, responsiveness to child input, and nonrestrictive attitude), three assessing parental control (controlling attitude, type of control, and expectations for the child), and two assessing parental structure (consistency and organization). It is presented in Appendix I.

The three dimensions of parental support were measured from a series of descriptive statements on six-point scales. The nurturance items referred to how much the parent enjoyed being with the child, encouraged the child, and showed appreciation to the child. A sample item read, "My child and I have warm, intimate moments together." Items measuring responsiveness to child input included statements about the parent's openness to the child's opinions and troubles, such as, "I encourage my child to express his/her opinion." Finally, items assessing nonrestrictive attitude concerned how much the parent restricted the child's behavior or restricted information going to the child. Example items include, "I do not allow my child to get angry with me," (reverse score) and "I don't think children should be given sexual information" (reverse score).

Controlling attitudes were assessed with a series of five opposing statements for which parents had to choose which one they agreed with most strongly. An example was, "Nowadays too much emphasis is placed on obedience for children;" versus "Nowadays parents are too concerned about

letting children do what they want." The parents' control score consisted of the number of controlling statements he or she agreed with.

Type of control was measured with parents' responses to six hypothetical discipline situations. They were asked to indicate on a four-point scale how likely it was that they would use different types of discipline. One of the sample situations was, "After arguing over toys, your child hits a playmate." Discipline options were grouped into five types of control: 1) non-control, or letting the situation go, 2) physical punishment, 3) yelling, 4) reasoning, and 5) material or social consequences, including deprivation of privileges, sending the child to his/her room, assigning additional chores, etc. Parents were also given the option of listing other discipline techniques they might use.

The final control measure was an assessment of the parents' level of expectations for the child. Parents rated on a five- point Likert scale how important it was for them to encourage their child in the areas of concern for others, (i.e., to be courteous and considerate), independence, (i.e., to watch out for his/her own needs), and accomplishments, (i.e., to be effective in what he/she does).

Parental structure consisted of consistency and organization. Consistency was assessed from a series of descriptive statements on a six-point Likert scale referring

to the consistency in the parent's discipline. Example items include, "I always follow through on discipline for my child, no matter how long it takes," and "My child convinces me to change my mind after I have refused a request" (reverse score). Organization was assessed with four descriptive statements concerning the organization in the parent's household, for example, "We have a regular dinner schedule each week," and "Our house is clean and orderly."

# RESULTS

## Reliability and Validity of Empathy Measures

The study included two separate trait empathy measures for children: 1) children's self-report of empathy and 2) parents' ratings of children's empathy, whose questions were derived from the Davis (1980) Interpersonal Reactivity Index (IRI).

Internal consistency was calculated for both measures and for the four subscale scores of each measure. The coefficient alpha for the children's self-reported empathy was .90, while the coefficient alpha for the parents' ratings of children's empathy was .57. Table 1 displays the reliability coefficients for the subscales in each measure. The children's self-report measure had consistently higher reliability than the parents' ratings across all subscales.

Correlations between the subscales of these two measures were obtained. Only three of them were significant (See Table 2). Parent ratings of children's overall empathy correlated positively with children's self-reported overall empathy ($r$ = .21, $p$ < .03), parent-rated perspective taking correlated with children's self reported perspective taking ($r$ = .19, $p$ < .03), and parent's ratings of children's overall empathy were correlated with children's self

TABLE 1

Coefficient Alphas for Children's Self-Report Trait Empathy, Parents' Ratings for Children's Empathy, and Parents' Self-Report Empathy

| | FANTASY | CONCERN | DISTRESS | PERSPEC | OVERALL |
|---|---|---|---|---|---|
| CHILD SELF-REPORT | .75 | .70 | .75 | .72 | .90 |
| PARENTS' REPORT | .42 | -.20 | .29 | .50 | .57 |

TABLE 2

Correlation Coefficients for Children's Self-Report Trait Empathy Subscales with Parents' Ratings of Children's Trait Empathy Subscales

| PARENTS' REPORT | CHILDREN'S SELF REPORT | | | | |
|---|---|---|---|---|---|
| | FANTASY | CONCERN | DISTRESS | PERSPEC | OVERALL |
| FANTASY | .08 | .12 | .02 | .12 | .08 |
| CONCERN | .10 | .13 | .03 | .01 | .10 |
| DISTRESS | -.10 | .01 | -.04 | -.07 | -.06 |
| PERSPEC | .08 | .14 | .08 | .19 * | .12 |
| OVERALL | .13 | .21 * | .14 | .15 | .19 * |

* $p < .05$, ** $p < .01$, *** $p < .001$, One-tail

reported empathic concern ($r$ = .19, $p$ < .03).

In addition to the two trait empathy measures, children's state empathy was also assessed in the form of a one-time single rating. The validity of the two trait empathy measures was tested by comparing the sizes of their correlations with children's state empathy. Positive correlations were found between children's self-report empathy and children's state empathy for all subscales except for personal distress. No relationships were found between parents' report of children's empathy subscales and children's state empathy. These correlations are presented in Table 3.

As a further measure of validity, each empathy measure was correlated with a measure of prosocial behavior (how much time children spent making cards for children in the hospital). No significant relationships were found between either state empathy or prosocial behavior and parents' ratings of children's empathy. However, prosocial behavior was positively correlated with children's self-reported fantasy empathy ($r$ = .19, $p$ < .03), perspective taking ($r$ = .22, $p$ < .02), and overall empathy ($r$ = .22, $p$ < .02).

Because children's self-report measures had higher correlations with both an independent measure of empathy (children's state empathy) and prosocial behavior than parent-ratings, it appears that children's self-report measures of empathy have greater validity than parent

TABLE 3

Correlation Coefficients for Children's Self Report and Parents' Ratings of Children's Trait Empathy and State Empathy

| | CHILDREN'S SELF-REPORT EMPATHY | | | | |
|---|---|---|---|---|---|
| | FANTASY | CONCERN | DISTRESS | PERSPEC | OVERALL |
| STATE EMPATHY | .29** | .34*** | .14 | .27** | .33*** |
| | PARENTS' RATINGS OF CHILDREN'S EMPATHY | | | | |
| STATE EMPATHY | -.13 | .02 | -.01 | -.02 | -.07 |

* $p < .05$, ** $p < .01$, *** $p < .001$, One-Tail

ratings of children's empathy.

Construct Validity of Subscales

It was expected that correlations among subscales would be similar to those found by Davis (1983). He found that in an adult sample, perspective taking was positively related to empathic concern and negatively related to personal distress. Instead, initial analyses revealed high positive correlations among all subscales of children's self-report empathy. (See Table 4). Parent ratings of children's empathy also had positive correlations among most subscales, however, these were not as high as the children self-report. These correlations are presented in Table 5.

Correlations among the children's self-report subscales were then obtained separately at each age level (5-6 years, 7-8 years, and 9-10 years). Correlations between

TABLE 4

Correlation Coefficients for Children's Self-Report Trait Empathy Subscales

| | FANTASY | CONCERN | DISTRESS | PERSPEC | OVERALL |
|---|---|---|---|---|---|
| FANTASY | ----- | .63 *** | .60 *** | .50 *** | .83 *** |
| CONCERN | | ----- | .70 *** | .59 *** | .82 *** |
| DISTRESS | | | ----- | .54 *** | .85 *** |
| PERSPEC | | | | ----- | .75 *** |
| OVERALL | | | | | ----- |

*** $p < .001$, One-Tail

TABLE 5

Correlation Coefficients for Parents' Ratings of Children's Trait Empathy Subscales

| | FANTASY | CONCERN | DISTRESS | PERSPEC | OVERALL |
|---|---|---|---|---|---|
| FANTASY | ----- | .42 *** | .27 ** | .27 ** | .58 *** |
| CONCERN | | ----- | .23 ** | .12 | .29 ** |
| DISTRESS | | | ----- | -.05 | .34 *** |
| PERSPEC | | | | ----- | .45 *** |
| OVERALL | | | | | ----- |

* $p < .05$, ** $p < .01$, *** $p < .001$, One-tail

perspective taking and empathic concern did not differ at the different age levels. However, the correlation between perspective taking and personal distress steadily decreased with age. Five to six year olds had a correlation of .77. By seven to eight years it dropped to .51. Among the 9-10 year old group, it was .37. Thus, the older children demonstrated relationships among the empathy subscales that were more similar to Davis' (1983) findings than the younger children.

Age and Sex Effects on Empathy

Trait Empathy

Empathy scores were expected to vary with the age and sex of the child. Older children were hypothesized to have higher perspective taking and empathic concern scores than younger children and girls were hypothesized to have higher empathy than boys. A 4 x 3 x 2 analysis of variance (ANOVA) was performed to look at the interaction between children's self-reported trait empathy (fantasy empathy, personal distress, perspective taking and empathic concern), age (5-6 year olds, 7-8 year olds, and 9-10 year olds), and sex (boys and girls).

The ANOVA tables are displayed in Tables 6-10. Contrary to the hypothesis, no significant main effects for age were found.

A significant main effect for sex was found for children's self-report perspective taking [$F(1,99) = 5.312$,

TABLE 6

Relative Age and Sex Effects on Children's Self-Report of Perspective Taking

| Variable | Sum of Squares | DF | Mean Square | F | Sig of F |
|---|---|---|---|---|---|
| Main Effects | | | | | |
| Age | 4.893 | 2 | 2.446 | .492 | .61 |
| Sex | 26.439 | 1 | 26.439 | 5.312 | .02 |
| Interaction | | | | | |
| Age by Sex | 27.499 | 2 | 13.749 | 2.763 | .07 |
| Residual | 467.816 | 94 | 4.977 | | |

TABLE 7

Relative Age and Sex Effects on Children's Self-Report of Fantasy Empathy

| Variable | Sum of Squares | DF | Mean Square | F | Sig of F |
|---|---|---|---|---|---|
| Main Effects | | | | | |
| Age | 3.213 | 2 | 1.607 | .267 | .77 |
| Sex | 23.497 | 1 | 23.497 | 3.908 | .05 |
| Interaction | | | | | |
| Age by Sex | 27.963 | 2 | 13.982 | 2.326 | .10 |
| Residual | 565.141 | 94 | 6.012 | | |

TABLE 8

Relative Age and Sex Effects on Children's Self-Report of Empathic Distress

| Variable | Sum of Squares | DF | Mean Square | F | Sig of F |
|---|---|---|---|---|---|
| Main Effects | | | | | |
| Age | 13.660 | 2 | 6.830 | 1.173 | .31 |
| Sex | 13.168 | 1 | 13.168 | 2.261 | .14 |
| Interaction | | | | | |
| Age by Sex | 43.982 | 2 | 21.991 | 3.777 | .03 |
| Residual | 547.376 | 94 | 5.823 | | |

TABLE 9

Relative Age and Sex Effects on Children's Self-Report of Empathic Concern

| Variable | Sum of Squares | DF | Mean Square | F | Sig of F |
|---|---|---|---|---|---|
| Main Effects | | | | | |
| Age | 14.856 | 2 | 7.428 | 1.012 | .37 |
| Sex | 1.408 | 1 | 1.408 | .192 | .66 |
| Interaction | | | | | |
| Age by Sex | 30.307 | 2 | 15.153 | 2.064 | .13 |
| Residual | 690.239 | 94 | 7.343 | | |

TABLE 10

Relative Age and Sex Effects on Children's Self-Report of Overall Empathy

| Variable | Sum of Squares | DF | Mean Square | F | Sig of F |
|---|---|---|---|---|---|
| Main Effects | | | | | |
| Age | 1.569 | 2 | .784 | .187 | .83 |
| Sex | 16.373 | 1 | 16.373 | 3.895 | .05 |
| Interaction | | | | | |
| Age by Sex | 24.005 | 2 | 12.002 | 2.855 | .06 |
| Residual | 395.139 | 94 | 4.204 | | |

$p < .03$], fantasy empathy [$F$ (1,94) = 23.497, $p = .05$] and overall empathy scores [$F$ (1,94) = 3.895, $p = .05$]. Therefore, some support for the hypothesis that girls would have higher empathy scores than boys was found.

Personal distress was hypothesized to decrease with age. A significant interaction effect for personal distress [$F$(2,99) = 3.777, $p < .03$] demonstrated a pattern of development in which personal distress scores decreased between 5-6 years and 7-8 years for both boys and girls, but increased sharply for boys between 7-8 years and 9-10 years. A graph of the interaction is presented in Figure 1. Thus, only girls demonstrated the hypothesized downward trend in personal distress.

The same ANOVA procedure was repeated using parent's


Figure 1 Interaction Between Age and Sex for Children's Self-Reported Personal Distress

ratings of children's empathy. In striking contrast to the children's self-report data, no main or interaction effects were significant and no support for the hypotheses were found.

State Empathy

State empathy was analyzed separately from the trait empathy measures since data was available for only half of the subjects. This study was part of a larger project that looked at cooperation in pairs of children and therefore only one child was exposed to the pictures of the children in the hospital and was assessed for state empathy. An

TABLE 11

Relative Age and Sex Effects on Children's Self-Report of State Empathy

| Variable | Sum of Squares | DF | Mean Square | F | Sig of F |
|---|---|---|---|---|---|
| Main Effects | | | | | |
| Age | .256 | 2 | .128 | .121 | .887 |
| Sex | 1.886 | 1 | 1.886 | 1.778 | .190 |
| Interaction | | | | | |
| Age by Sex | 5.927 | 2 | 2.964 | 2.794 | .073 |
| Residual | 43.448 | 41 | 1.061 | | |

ANOVA revealed no significant main or interaction effects. (See Table 11).

Empathy and Peer Interaction

A correlation matrix displaying the relationships among all of the peer variables and the children's self reported empathy subscales is presented in Table 12, and the relationships between peer interaction variables and parents' ratings of children's empathy are presented in Table 13.

Early Peer Experience

Early peer experience was expected to be positively related to empathic concern, negatively related to personal distress, and not related to perspective taking. Peer experience was actually found to be negatively correlated

TABLE 12

Correlation Coefficients for Children's Self-Report Empathy and Peer Experience

| | FANTASY | CONCERN | DISTRESS | PERSPEC | OVERALL | STATE |
|---|---|---|---|---|---|---|
| EARLY EXPER | -.18 * | -.21 * | -.13 | -.16 * | -.20 * | .18 |
| AGE STARTED | -.01 | -.11 | -.02 | .01 | .00 | -.06 |
| HOURS/ DAY | .02 | .10 | -.01 | -.01 | .00 | .06 |
| DAYS/ WEEK | -.05 | .01 | .01 | .00 | -.03 | .03 |
| MONTHS | -.12 | .07 | -.06 | -.01 | -.07 | .17 |
| FRIENDS | .07 | .01 | .03 | .16 * | .07 | .12 |
| HOURS W/ FRIENDS | -.02 | -.05 | .04 | -.07 | -.08 | -.27* |
| GROUPS | -.06 | -.26 * | -.22 * | -.17 | -.20 * | .15 |
| CHILD-CARE | -.06 | -.09 | -.04 | -.09 | -.09 | -.10 |
| TOTAL MONTHS | -.02 | .09 | .10 | .10 | .07 | .05 |
| DAYS/ WEEK | .06 | .06 | .15 | .21 * | .13 | .01 |
| PEER ACCEPT | .16 * | .18 * | .17 * | .20 * | .22 * | -.04 |

* $p < .05$, One-tail

TABLE 13

Correlation Coefficients for Parent's Ratings of Children's Empathy with Children's Peer Experience

| | FANTASY | CONCERN | DISTRESS | PERSPEC | OVERALL |
|---|---|---|---|---|---|
| EARLY EXPERIENCE | -.07 | -.03 | -.07 | .05 | -.14 |
| AGE STARTED | .58 | -.03 | .24* | .04 | .18 |
| HOURS/ DAY | -.13 | .06 | -.13 | -.07 | -.24* |
| DAYS/ WEEK | -.06 | .11 | -.15 | -.07 | -.06 |
| MONTHS | .00 | .09 | -.20 | .06 | -.04 |
| FRIENDS | -.04 | -.12 | -.22* | .05 | -.08 |
| HOURS W/ FRIENDS | .10 | -.16 | -.11 | .00 | .01 |
| GROUPS | -.03 | .00 | .25* | .17 | -.12 |
| CHILD-CARE | .06 | -.19 | -.11 | -.08 | -.06 |
| TOTAL MONTHS | .06 | .02 | -.01 | .22* | .01 |
| DAYS/ WEEK | -.05 | -.15 | .04 | .08 | .10 |
| PEER ACCEPT | .14 | .22 | .00 | .19 | .11 |

* $p < .05$, One-Tail

with children's self-report empathic concern ($r$ = -.21, $p$ < .05), which was in the opposite direction from the hypothesis. No relationship was expected between early peer experience and perspective taking, however, a negative correlation was found ($r$ = -.16, $p$ < .05). Those children who began childcare or nursery school at a younger age had lower personal distress scores than children who first started at an older age ($r$ = .24, $p$ < .05), offering support for the hypothesis that early peer experiences reduce personal distress.

In addition to these findings, the analyses also revealed negative correlations between early peer experience and children's self-report fantasy empathy ($r$ = -.18, $p$ < .05) and overall empathy ($r$ = -.20, $p$ < .05). This indicates that early peer experience was related to lower empathy on all of the children's self-report subscales. Only one significant relationship was found between early peer experience and parents' ratings of children's empathy -- a negative correlation between the number of hours a day that a child attended childcare or nursery school and parents' ratings of overall empathy ($r$ = -.24, $p$ < .05). This, too, was in the opposite direction of the hypothesis.

Peer Involvement in Middle Childhood

Three types of after school peer involvement were examined: Spending time with friends, spending time in organized group activities, and spending time in after-

school childcare. The amount of time spent with peers outside of school was not expected to be related to children's perspective taking except in the context of spending time with friends.

The results revealed that having one or two friends to spend time with after school was indeed positively related to children's self-reported perspective taking ($r$ = .16, $p$ < .05). Although not predicted, it was also found to be negatively related to parent's ratings of children's personal distress ($r$ = -.22, $p$ < .05), and the number of hours spent with friends was found to be negatively related to children's state empathy ($r$ = -.27, $p$ < .05).

As predicted, there was no relationship between spending time in organized peer group activities and children's perspective taking. There were, however, a few unpredicted findings. A negative relationship was found between spending time in organized peer group activities and children's self-report of empathic concern ($r$ = -.26, $p$ < .01), personal distress ($r$ = -.22, $p$ < .05) and overall empathy ($r$ = -.20, $p$ < .05). In addition, organized peer group activities were positively correlated with parents' ratings of children's personal distress ($r$ = .25, $p$ < .05).

The total number of months spent in childcare was positively associated with parent's ratings of children's perspective taking ($r$ = .221, $p$ < .05). This contradicted the hypothesis that peer interactions in the context of

childcare settings would not be related to perspective taking.

In sum, it was demonstrated that extra peer involvement in middle childhood affects the development of empathy differently depending on the context. Interactions with friends and attending childcare was associated with perspective taking. Spending time with friends was also related to lower personal distress. Involvement in organized peer group activities was negatively related to empathic concern.

Peer Acceptance

It was predicted that children's friendships and acceptance by peers, as measured by the Harter (1984) Pictorial Scale of Perceived Self-Competence for Children, would be positively related to perspective taking, empathic concern, and state empathy. The results indicated that this variable was significantly related to all subscales of children's self-reported empathy: Fantasy empathy ($r$ = .16, $p$ < .05), empathic concern ($r$ = .18, $p$ < .05), personal distress ($r$ = .17, $p$ < .05), perspective taking ($r$ = .20, $p$ < .05), and overall empathy ($r$ = .22, $p$ < .05). Perceived peer acceptance was not related to state empathy or parents' ratings of children's empathy, however.

An additional analysis looking at boys and girls separately found that perceived peer acceptance was related to empathy only in the girls' sample. Perceived peer

TABLE 14

Correlation Coefficients for Peer Acceptance and Children's Self Reported Empathy

| | FANTASY | CONCERN | DISTRESS | PERSPEC | OVERALL |
|---|---|---|---|---|---|
| GIRLS' PEER ACCEPTANCE | .22* | .21* | .20* | .20* | .26* |
| BOYS' PEER ACCEPTANCE | .00 | .10 | .07 | .15 | .10 |

acceptance was unrelated to all of the boys' empathy subscales. Thus, the hypothesis was only supported for girls' self-report trait empathy. A comparison of boys' and girls' correlations with peer acceptance is displayed in Table 14.

All of the peer variables had low order correlations, and due to the number of correlations run, several significant correlations could be expected to occur by chance alone. These results, therefore, should be interpreted with caution.

## Empathy and Parenting Style

A correlation matrix displaying the relationships among all of the parenting variables and children's self reported empathy is presented in Table 15. The matrix consisting of parenting variables and parent-ratings of children's empathy is presented in Table 16.

The variables nurturance, responsiveness, expectations, and reasoning were hypothesized to be positively related to

TABLE 15

Correlation Coefficients for Children's Self-Report Empathy and Parents' Childrearing Style

| | FANTASY | CONCERN | DISTRESS | PERSPEC | OVERALL | STATE |
|---|---|---|---|---|---|---|
| CONTROL | -.09 | -.10 | -.06 | -.05 | -.11 | -.17 |
| NURTURE | -.01 | .01 | .06 | .05 | .02 | -.12 |
| RESPONS | .04 | -.03 | .07 | .10 | .04 | -.19 |
| NONRESTR | -.04 | -.16 * | -.14 | -.09 | -.14 | -.20 |
| CONSIST | -.09 | -.16 * | -.02 | .00 | -.03 | -.20 |
| ORGANIZ | -.16 * | -.03 | -.11 | .03 | -.09 | -.05 |
| EXPECT | .06 | .08 | -.07 | .09 | .03 | .19 |
| DISCIPL | | | | | | |
| PUNISH | -.01 | .01 | -.06 | .04 | .01 | -.01 |
| CONSEQ | -.02 | -.15 | -.11 | .03 | -.04 | .12 |
| REASON | .10 | .08 | -.04 | .06 | .05 | .02 |
| YELL | -.05 | -.07 | -.12 | -.12 | -.07 | -.05 |
| IGNORE | .00 | .16 * | .02 | -.04 | .03 | .07 |

* $p < .05$, one tail

TABLE 16

Correlation Coefficients for Parent's Ratings of Children's Empathy and Parents' Childrearing Style

| | FANTASY | CONCERN | DISTRESS | PERSPEC | OVERALL |
|---|---|---|---|---|---|
| CONTROL | -.26* | -.09 | -.08 | -.04 | -.31* |
| NURTURE | .19 | .06 | -.10 | .05 | .06 |
| RESPONS | .12 | -.20 | -.06 | .01 | .08 |
| NONRESTR | .01 | -.20 | -.13 | .03 | -.12 |
| CONSIST | .07 | .08 | -.30* | -.02 | -.17 |
| ORGANIZ | -.10 | -.07 | -.18 | -.11 | -.21 |
| EXPECT | .12 | .08 | .10 | .05 | .13 |
| DISCIPL | | | | | |
| PUNISH | -.02 | .07 | .21 | .01 | -.02 |
| CONSEQ | .26* | .08 | .10 | .17 | .19 |
| REASON | .07 | -.03 | .07 | .16 | .18 |
| YELL | .12 | .17 | .34** | .19 | .11 |
| IGNORE | .13 | .21 | .20 | -.10 | .24* |

* $p < .05$, ** $p < .01$, One-Tail

children's perspective taking, empathic concern, and state empathy. Yelling, physical punishment, material or social consequences, and ignoring discipline situations were hypothesized to be negatively related to the same empathy variables. The results did not support these hypotheses, and in some cases were in the opposite direction. Ignoring discipline situations was positively related to children's self-report empathic concern ($r$ = .16, $p$ < .05) and parents' reports of children's overall empathy ($r$ = .24, $p$ < .05). Material or social consequences were positively correlated with parent's ratings of fantasy empathy ($r$ = .26, $p$ < .05).

Although many of the predicted relationships were not significant, other unpredicted results were found. Parental structure was important in some areas. For example, organization was negatively related to children's self -report fantasy empathy ($r$ = -.16, $p$ < .05) and consistency was negatively correlated with parents' ratings of children's personal distress ($r$ = -.30, $p$ < .05). Other significant parental variables included non-restrictive attitude, which was negatively related to children's self reported empathic concern ($r$, -.16, $p$ < .05), controlling attitude, which was negatively correlated with both parents' reports of children's fantasy empathy ($r$ = -.26, $p$ < .05) and overall empathy ($r$ = .31, $p$ < .05), and yelling, which was positively correlated with parents' ratings of children's personal distress ($r$ = .34, $p$ < .01).

Thus, individual parenting variables did not predict child empathy variables in any systematic way. Since most work in the literature (eg. Hoffman, 1977, Baumrind, 1971) looked at parenting styles consisting of a cluster of parenting variables, an attempt was made to group some of the variables into three distinct parenting styles, modeled roughly after the three parenting styles described by Baumrind (1971): authoritative, authoritarian, and permissive.

The authoritative style was characterized by moderate control, high expectations, high nurturance, high responsiveness, and the use of reasoning. The authoritarian style consisted of high control, high expectations, low nurturance, low responsiveness, the use of physical punishment, and material and social consequences. The permissive style consisted of low control, low expectations, high nurturance, high responsiveness, and frequently ignoring discipline situations.

These groupings were not found to be useful for predicting children's empathy. A frequencies analyses indicated that 100% of the parents in the sample were classified as "authoritative." The lack of variance prevented any comparisons to be made among different styles.

In addition to testing the hypotheses, additional analyses examined the relation between parenting style and the children's age and sex. These correlations are

TABLE 17

Correlation Coefficients for Parents' Childrearing Style and Children's Sex

| | CHILDREN'S SEX | CHILDREN'S AGE |
|---|---|---|
| CONTROL | -.19* | .02 |
| NURTURE | .07 | -.01 |
| RESPONS | .12 | .00 |
| NONRESTR | -.11 | -.09 |
| CONSIST | -.17* | .12 |
| ORGANIZ | -.18* | .05 |
| EXPECT | -.17* | .07 |
| DISCIP | | |
| PUNISH | -.01 | .09 |
| CONSEQ | .05 | .31*** |
| REASON | -.02 | .08 |
| YELL | .09 | .13 |
| IGNORE | .07 | -.01 |

* $p < .05$, *** $p < .001$, One-Tail

presented in Table 17. Parents use more control ($r$ = -.19, $p$ < .05), are more consistent ($r$ = -.17, $p$ < .05), more organized ($r$ = -.18, $p$ < .05), and have higher expectations ($r$ = -.17, $p$ < .05) for boys than girls. Parents are also more likely to use material or social consequences for disciplining as children get older ( $r$ = .31, $p$ < .001).

The correlations for the parenting variables were all quite low and due to the number of correlations run, several significant correlations could be expected to occur by chance alone. Therefore, these results should be looked at with caution.

## Summary of Findings

No main effects for age were found. Sex differences favoring girls were found for perspective taking, fantasy empathy, and overall empathy. A sex by age interaction effect was significant for personal distress.

Early childcare experiences negatively correlated with most empathy measures, but childcare experiences in middle childhood were positively associated with perspective taking. Spending time with friends in middle childhood was positively related to perspective taking and negatively related to personal distress, but spending time in organized peer groups had a negative impact on most empathy measures.

Self-perceived peer acceptance was related to all subscales of trait empathy for girls, but not for boys.

Predictions concerning the parenting variables

associated with empathy were largely not supported. A lack of variance in parents' childrearing style prevented comparisons between different styles to be made.

# DISCUSSION

## Reliability and Validity of Empathy Measures

Internal consistency for the children's self report empathy measures reached acceptable levels with an alpha level of .90 overall and .70 or above for all the subscales. Some psychologists consider a coefficient alpha above .60 adequate test reliability (Nunnaly, 1967). By that standard, the parents' ratings of children's empathy (with an overall alpha level of .57) did not reach an acceptable level of reliability. With more than half of the test variance in this measure due to error, the size of the correlations with other variables will necessarily be lowered.

As far as validity is concerned, the children's self-report measure appears to surpass the parent-report measure again. Children's self-report empathy correlated more highly with both state empathy and a measure of prosocial behavior than parent's ratings of children's empathy.

The results provide some promising news for the use of children's self report data in empathy research. On the other hand, they suggest that researchers ought to be careful when drawing conclusions from data collected with parent ratings of children's empathy.

It is not clear why there were problems with the parent-report data. Perhaps parents are not adequate judges of their children's internal states. Since they cannot directly observe empathic responses in their children and must infer them from their children's behavior, they may be more susceptible to bias. On the other hand, they may be influenced more than children by demand characteristics in the questionnaire and social desirability effects. In other words, they may be more interested than their children in providing socially acceptable answers and in pleasing the experimenters.

Validity of Subscales

Correlations among all the self-report and parent-report empathy subscales were positive and significant. This finding originally appeared to question the validity of calling each subscale in this sample a unique construct. However, although the children's self-report subscale scores were highly correlated with one another, they each demonstrated unique and predictable relationships with other independent variables (parenting variables and peer variables). For example, spending time with friends was positively related only to the children's self-report perspective taking subscale, and parents' organization was negatively related only to the children's self-reported fantasy empathy subscale. These relationships demonstrate that the subscales have some discriminant validity.

Davis (1983) was able to demonstrate convergent validity for his subscales, finding negative correlations between perspective taking and personal distress and positive correlations between perspective taking and empathic concern. In this study, a positive correlation between perspective taking and empathic concern was demonstrated in the children's self-report data, but not with the parent-ratings, although the low reliability of the parent-ratings make it necessary to view this finding with caution. A negative correlation between perspective taking and personal distress was not found in this sample. In fact, strong positive relationships were found in children's self-report empathy and a negative, although insignificant correlation was found in parent's ratings.

Since Davis' sample consisted of adults, the differences among the subscales in this study may be due to the fact that the subjects were children. Thus, there is a possibility that empathy starts out as an undifferentiated affective response to the distress of others (personal distress). With age, the empathic response becomes more complex and differentiates into separate constructs.

An alternative explanation for these results is that the age differences noted are simply differences in children's abilities to integrate and make judgments about information (Surber, 1984). Perhaps all four constructs are present in young children, but the children do not possess

the cognitive judgements to make fine distinctions between such related concepts. Or, perhaps, they are able to make those judgments, but the way that information gets translated on the rating scale changes with age. Surber (1984) has cautioned developmental researchers about drawing conclusions about age differences in psychological constructs measured with rating scales.

For instance, younger children may base their responses on a single instance that they happen to recall, rather than thinking in a general way about how they usually respond in such situations or how they probably would respond in future situations. So when asked if he feels sad that other children are in the hospital, a 5 year old often responds with a comment like, "Yes, my brother was in the hospital once and he cried." Children like these usually choose either the 10 (highest score) or 0 (lowest score) on the rating scale. Thus, their answers are more extreme than older children, who make greater use of the whole scale.

Harter (1983), studying children's experiences of multiple emotions, discovered that children find it difficult to experience more that one emotion at a time. Because of this, their responses to questions about feelings have an "all or none" characteristic to them. In other words, they feel either all happy or all sad -- no combination of the two or both at the same time. She explains this as a cognitive limitation of young children,

characteristic of preoperational thought. Children can only focus on one aspect of a situation at a time. Harter's findings can be applied to children's responses to the empathy interview and explain why the younger children respond in such an extreme manner.

This poses an interesting question for future research. Does empathy begin as a fairly unitary response to the distress of others and become more differentiated with age? Or are these findings simply an artifact due to developmental differences in the abilities to integrate information and make judgements?

## State and Trait Empathy

Parenting and peer variables were unrelated to children's state empathy (with the single exception of a negative correlation between state empathy and children's time spent with friends). A possible explanation for this finding is that state empathy is more difficult to predict from socialization variables than trait empathy because it is less stable and may be influenced by situational variables. For instance, variables such as the saliency of the other's distress, whether the child identifies with the other, the child's attention, the child's mood, etc., all may influence whether a general tendency to respond empathically will be activated in that particular situation.

The characteristics of trait empathy make it easier to predict from socialization variables probably because trait

empathy measures ask questions which reflect learned standards of behavior, expectations and values -- all things which are learned through socialization.

Empathy and Age

No main effects for age were found. This result was surprising and contrasts with most developmental theories of empathy (Hoffman, 1984) as well as most empirical studies (Rothenberg, 1970; Kurdek and Rodgon, 1975). The relatively small number of significant main effects for age and sex may be misleading, however, because of possible interaction effects.

Although only the interaction between age and sex for personal distress was significant, all of the other subscales of empathy as well as state empathy had age by sex interactions displaying the same pattern of development and were approaching significance. In general, boys' empathy increased with age and girls' empathy decreased slightly with age. The interaction effect for perspective taking showed that boys and girls differed primarily in the youngest group (5-6 year olds). Boys increased their perspective taking scores dramatically between 5-6 years and 7-8 years, at which time they reached the same level as the girls. Girls scores decreased slightly with increasing age.

Since all of the interaction effects demonstrated the same pattern, it suggests that they represent a common developmental trend and were not simply chance occurrences.

The lack of significance is probably due to the small N of the sample, resulting in individual cells with very few subjects. Future research with a larger N will be needed to determine whether these findings represent a genuine developmental trend.

Girls' empathy did not increase for any subscale with age. One way to explain the lack of age effects for girls is to see it as a problem of restricted range. The sample did not include a wide enough range of ages to capture developmental differences in empathy.

One of the basic premises of this study was that the development of empathy is related to cognitive changes in the child, particularly the development of perspective taking. According to Piaget, this ability develops during the concrete operations stage, which begins roughly around ages 5 to 7 and ends around 11 to 13. It is likely that the majority of the subjects in this study were in the concrete operations stage of cognitive development. This may have reduced the variation among subjects in both their cognitive level and empathy level. If the sample included children from the preoperational stage and the formal operational stage, perhaps stronger age effects would be found.

Differences between boys and girls may reflect some differences in cognitive development. The biggest differences between boys' and girls' scores were in the 5-6 year old category. Young girls scored higher than young

boys on all measures of empathy, but the differences diminished with age. This was particularly clear for perspective taking. This could be explained by making the assumption that some of the younger boys were still in the preoperational stage of cognitive development. Differences between the boys and girls may simply reflect a difference in developmental maturity. Girls demonstrate a faster rate of maturation than boys by approximately 20 percent (Sinclair, 1978) and this may be reflected in their reaching the concrete operations stage at a earlier age than boys.

It is interesting to note that boys showed their most dramatic increases in perspective taking between the ages 5-6 and 7-8. Increases in fantasy empathy and empathic concern were less dramatic and occurred later, between ages 7-8 and 9-10. This is consistent with the idea that the development of empathic concern and fantasy empathy are due to increases in perspective taking.

The developmental pattern for the personal distress subscale differed somewhat from the other subscales. Both boys and girls showed a downward trend with age (supporting the hypothesis) except for a strange, sharp increase in personal distress for boys between the ages of 7-8 and 9-10. This finding contrasts with the theories of researchers like Davis (1983) and Hoffman (1984) who both predict that personal distress should diminish with age.

One way to explain this is to attribute the unusual

scores of the 9-10 year old boys to the small N of that cell. This cell was the smallest in the study, consisting of only 6 boys. Future studies are needed to determine if this spurt of personal distress in older boys is unique to this sample or a reliable trend.

The slight decrease in girls' empathy scores with age is not significant and probably does not reflect a real decrease in empathic responding with age, but rather, a difference in judgements and responses to questions on the rating scale. As noted previously, younger children respond to questions with more extreme answers than older children. Thus, the slight decrease in girls' scores may simply be a reflection of age differences in responses on the rating scale.

The fact that no findings were significant for the parent's ratings of children's empathy is probably due to the low reliability of that measure.

Sex Differences in Empathy

Girls were expected to score higher than boys on all measures of empathy because of the demand characteristics in the self-report and parent-report measures of empathy used, social desirability effects, and because the interviewers were all female. Significant sex differences were found for children's self-report perspective taking, fantasy empathy and overall empathy.

It seems improbable that demand characteristics or

issues of social desirability were responsible for these sex differences because no differences were found for empathic concern and personal distress. These two subscales are more closely related to stereotypically feminine characteristics than either perspective taking or fantasy empathy. If social desirability effects were present, it would be difficult to explain the lack of sex differences in these subscales.

Another possibility is that the sex differences were due to the female interviewers in this study. It has been suggested that children may attend more to same-sex than opposite-sex experimenters, fear same-sex experimenters less, or be more motivated to seek approval from same-sex experimenters (Eisenberg and Lennon, 1983). This explanation still fails to explain the lack of sex differences found for empathic concern and personal distress, however.

The largest sex differences were found for children in the youngest age group and the differences largely disappeared for older children. As noted previously, these sex differences may simply reflect differences in maturity level between the sexes in the youngest group.

Alternatively, sex differences may be due to the different socialization experiences of boys and girls. Analyses revealed that parents use different childrearing styles depending on the sex of the child. Parents use more

control, are more consistent, more organized, and have higher expectations for boys than girls.

It is interesting to note that three of the variables that parents reported to use more often with boys in this sample (control, consistency, and organization) were also found to be negatively related to empathy. Thus, this study suggests that parenting styles may play a role in the socialization of empathy at least for boys.

The finding that parenting styles differ depending on the sex of the child contrasts with a recent meta-analysis by Lytton and Romney (1991) on parents' differential socialization of boys and girls. They conclude that very few difference in parental treatment of boys and girls exist. This study did not examine specifically the socialization of empathy, however.

Another possible explanation for the sex differences in children's empathy could be the differences in the peer socialization of boys and girls. Boys and girls differ in their friendships, their playing styles, and the types of games they play (Lever, 1987; Eder and Hallinan, 1978; Waldrop and Halverson, 1975). This topic will be discussed further in the section on peer variables.

## Empathy and Peer Experience

### Early Peer Experience

Negative correlations were found between early peer experience and empathy when no correlations were expected.

One explanation for this finding is that the early day care experiences resulted in an increases in children's aggressive behavior (Belsky, 1988; Schwartz, et.al., 1974), and this resulted in lower empathy scores. Although this study did not measure aggression, the explanation that early childcare experiences are negatively related to empathy due to an increase in aggression is entirely plausible. Past research has demonstrated a negative relationship between aggression and empathy (Feshbach and Feshbach, 1969; Bryant, 1982). This explanation is fairly weak, however, because teacher ratings of aggression (which were used in these studies) may simply reflect the increased assertiveness and autonomy of children who have had early childcare experiences.

It is more likely that early peer experiences were negatively related to empathy, not because of some detrimental characteristic of experiences, but rather because of some positive characteristics related to children who have no early peer experience.

In this sample, almost all of the children had some early peer experience in the form of childcare or nursery school. Only 10 out of 59 parents reported that their child had no early peer experience. Those children who lacked early peer experiences probably lived in families where the mother was not employed outside of the home. Early peer experience could be confounded, therefore, with family

values, maternal employment, socioeconomic status, and any number of other variables. One of these other variables may be responsible for the higher empathy in children without early peer experience.

This explanation is bolstered by the fact that only the initial question asking whether the child had early peer experience or not (a "yes" or "no" question) was related to empathy. Other questions concerning the number of days per week or number of hours per day children were involved in childcare or preschool were not significantly related to empathy. This suggests that the difference between children with and without early peer experience in level of empathy is probably due to some variable confounded with early peer experience rather than the experience itself, or at least those aspects of early peer experience examined in this study.

The Threshold Hypothesis

The threshold hypothesis was not supported in this study. It states that some minimal amount of peer experience is sufficient for the development of perspective taking, and any experience above that threshold will not result in greater perspective taking skills. This study demonstrated that greater involvement with peers during middle childhood can be associated with improved perspective taking. This relationship was significant only under certain conditions, however.

It was hypothesized that peer experience would be related to perspective taking in the context of spending time with friends, but not in the context of organized peer group activities or childcare arrangements.

There did appear to be a relationship between spending time with friends outside of school and the development of perspective taking. This was true for both self-reported perspective taking and parent-reported perspective taking, supporting Piaget's (1965) contention that peers are important facilitators of perspective taking ability. This finding also supports hypotheses about the importance of friends in the development of perspective taking.

No relationship between perspective taking and organized peer groups was expected, and none was found. This is probably due to the fact that organized peer groups are typically more structured than children's own peer activities. Adults are often present, rules usually govern behavior, and the activity itself may prevent many opportunities for one-on-one interactions.

Organized peer group involvement was unexpectedly negatively associated with children's self-reported empathic concern, personal distress, and overall empathy. Some characteristics of organized children's peer group activities may explain these results.

Many of these groups involve some type of competition. Research has suggested that competitiveness interferes with

the development of empathy, because the focus is on the self rather than others (Rutherford and Mussen, 1968; Barnett, et.al., 1979). These studies had teachers rate children on their competitiveness and cooperativeness. The children rated high in competitiveness scored significantly lower on measures of empathy. It should not be too surprising, therefore, that types of activities which encourage competitiveness in children would be negatively related to empathic concern and overall empathy.

Because of the increased focus on the self, it would seem likely that competitive situations would increase personal distress, however, but this was not the case. The reason for this finding is unclear. Perhaps there is some other variable associated with organized peer activities that is responsible for reduced personal distress in children.

No relationship was expected between after school childcare and children's perspective taking, although the results demonstrated a positive correlation between the amount of time children spent in childcare and parent-ratings of children's perspective taking. Several explanations are possible. First of all, children who have been in childcare for a long period of time are likely to have made friends with the other children there. Thus, spending time in childcare would have the same effects as spending time with friends. Many childcare settings are

only semi-structured or not structured at all, so although an adult is present, children have a lot of freedom to pursue activities they choose. This setting may offer children enough freedom to work out their own conflicts without interference. Furthermore, childcare settings also do not have the competitive atmosphere of many child activity groups, and they often actively promote cooperation and helpful behavior.

Peer Acceptance

Children's self-perceived peer acceptance was the variable most strongly related to all subscales of empathy. This supports the hypothesis that empathy develops in the context of friendship relationships. Clearly, simply being around other children does not foster empathy. Children need to be involved in friendships and to feel accepted by their peers. Is within the context of friendship that children negotiate, feel a need to understand each other, and care about others and their feelings.

A problem with the correlational data in this study is that it is impossible to determine the direction of causation in the relationship between peer acceptance and empathy. The results support the hypothesis that peer acceptance leads to greater empathy, but it is equally plausible that children with greater empathy are more accepted by their peers. This would be an interesting research question for future studies.

Separate analyses for boys and girls revealed that the positive connection between self-perceived peer acceptance and empathy was only found in the girls' sample. This is probably due to the differing nature of peer relations for boys and girls.

Boys' games tend to be more competitive than girls' games and they tend to play in larger, mixed-aged groups. Girls prefer smaller, same-aged groups to play in (Lever, 1987). Girls also tend to have fewer friends than boys and make friends less rapidly (Eder and Hallinan, 1978). In addition, Waldrop and Halverson (1975) found that girls friendships are characterized by greater intimacy than boys' friendships.

Many characteristics of girls' peer experiences make them more suited for the development of empathy than boys' peer experiences. Small group size (particularly twosomes) has been related to more intense and cooperative social behavior (Vandell and Mueller, 1980; Clarke-Stewart and Gruber, 1984). In addition, Roopnarine and Johnson (1984) found interaction in same-age groups to be more positive, more verbal, and more likely to evoke cooperative play than mixed-age groups. The negative effects of competitiveness on the development of empathy have been previously noted. And the intimacy seen more often in girls' friendships than boys' friendships may be responsible for what Sullivan (1953) referred to as "mutual sensitivity." Thus,

friendship relationships appear to play an important role in the development of girls' empathy, but not boys' empathy. Conversely, however, the results could also imply that girls' may need higher empathy than boys to be accepted by their peers.

Empathy and Parenting Variables

The pattern of results that emerged in this study differed from all hypotheses and most of the previous work in the field (Hoffman and Salzstein, 1967; Baumrind, 1971; Bryant, 1985). The variables predicted to be important in the development of children's empathy, i.e. nurturance, reasoning, etc., were not significantly related to children's empathy in this study. Furthermore, many variables predicted to be negatively related to empathy turned out to be positively related. For example, ignoring discipline situations was positively related to both children's empathic concern and overall empathy, and using material or social consequences was positively related to children's self-report fantasy empathy.

The complete lack of support for the hypotheses was surprising. Parent-report data for children's empathy probably was not related to many parenting variables because of the poor reliability of that measure. One way to make sense of the children's self-report data is to remember the unique nature of the sample of parents in this study. The majority of them were middle class and educated. All of

them were classified as "authoritative" parents. The authoritative parents are those who have established firm rules, have high expectations and standards for their children, are warm and accepting, and frequently reason with their children.

Thus, the findings can only be generalized to other authoritative parents, and the significant relationships that were found must be understood in light of the characteristics of authoritative parents. In homes characterized by responsiveness and high expectations for the child, for instance, ignoring discipline situations can be interpreted as flexible, empathic behavior on the part of the parent. In non-authoritative homes, on the other hand, the same behavior may be interpreted as a lack of concern, or a failure to provide adequate direction for the child. Similarly, a high use of material or social consequences as a punishment may be positively related to fantasy empathy in authoritative homes, where they are probably accompanied by reasons and warmth. They may not have the same effect in authoritarian or permissive homes.

Clearly, more research is needed to discover how these parenting variables interact to influence children's empathy.

Despite the fact that none of the hypotheses were supported, some interesting, unpredicted results emerged. This study was one of the first to look at parental

structure (organization and consistency) in addition to childrearing variables and discipline styles. It was discovered that organization, including such things as having a regular dinner schedule, and keeping a neat and orderly home, was negatively related to children's fantasy empathy. Perhaps the structured nature of these homes interferes with children's freedom and creativity, which may impede the development of fantasy empathy. Alternatively, unstructured homes may somehow stimulate or foster empathy in children. Controlling attitude was similarly negatively related to fantasy empathy and overall empathy. More research is needed in parental structure as well as fantasy empathy.

Parental consistency was negatively associated with children's personal distress, while parent's yelling was positively related to personal distress. It can be speculated that yelling causes children to be concerned more about themselves than others, whereas parental consistency allows children to know what to expect so that they do not need to focus on themselves, and are allowed to consider others.

Finally, non-restrictive attitude was negatively related to empathic concern. The reason for this relationship is unclear.

It should be remembered that all the correlations for children's self-report empathy and parenting style were low

order correlations, and due to the larger number of analyses performed, some of the significant findings could have occurred by chance. Therefore, these results must be interpreted with caution.

## Conclusions

Parents and peers appear to play different roles in the development of children's empathy. The results of this study are congruent with the ideas of theorists like Damon who argue that children live in two "social worlds." Parenting variables were negatively associated with children's empathic concern, fantasy empathy and personal distress, but not with perspective taking. Peer variables were associated with all subscales of empathy, but particularly perspective taking. This suggests that parents may be instrumental in the development of the affective components of empathy, but that the cognitive components of empathy develop in the context of peer relationships. Both types of socialization are necessary for empathy to develop most fully.

Results from both peer and parent socialization data suggest that it is useful to conceptualize and measure empathy as a multi-construct variable.

Several limitations in this study restrict the conclusions that can be drawn. As noted previously, the homogenous sample prevents generalizations to be made beyond middle class children with educated, authoritative parents.

In addition, the N of this study was fairly small, especially when the sample was divided into age and sex groups. The N of each cell was not equal. Almost twice as many girls were represented than boys, and older boys, in particular, were few in number. Thus, all the results must be interpreted with caution.

# APPENDICES

APPENDIX A

PARENT'S LETTER

Michigan State University

Dear Parents:

As you know, children learn a great deal in school and not all of it comes from teachers and books! Children can tutor one another in reading, writing, and other academic subjects, and they also influence each other socially.

In cooperation with East Lansing Public Schools, I am conducting a study of children's social behavior - how pairs of children work and play together. I am inviting you to accompany your 5-6, 7-8, or 9-10 year old child to the MSU playroom located at 120 Psychology Research Building (on Bogue Street south of Grand River on the Michigan State University campus). We are also inviting you and your child to choose a friend of your child's age, within one year, and sex to bring to the playroom (with the child's and the parents' permission). Children will have the opportunity to play with a variety of toys and craft materials, and they will be interviewed about social relationships. The entire session will take only about an hour, and we will schedule it at your convenience. Most sessions will be scheduled after school or in the early evening and the parents and children who have participated so far really enjoyed themselves! If you decide to participate, someone will be calling you in the next few weeks to schedule a convenient meeting time and to give you more information about the project.

I am hoping you will take this opportunity and become involved in this research, which contributes to our knowledge of children's social development - as well as being fun for children and informative for parents. Please do not hesitate to call me if you have any questions (355-2162; 355-9561), and a detailed description of the study is on file at your child's school. We will also have time to discuss the project with you in detail after the play session and interviews are over.

Please complete the bottom portion of this letter and return it to your child's school as soon as possible. Thank you again for considering this project.

Sincerely,

Marianne McGrath, Ph.D.
Assistant Professor

_____ _____
Name of Child Name of Parent

_____ Yes, my child and I will participate _____
Phone Number

_____ No, we will not participate

APPENDIX B

CONSENT FORM

I agree to allow my son or daughter to participate in a study examining social relationships in children. This study is being conducted in a laboratory playroom/observation area (room 120 of the Psychology Research Building) in the psychology department of Michigan State University. I understand that this will involve approximately one hour. My child will be with another child of his or her same age and sex, where they may play with toys or work on other activities both alone and/or together for about thirty minutes. I further understand that videotaped records will be made of this session. After thirty minutes, my child will be interviewed by a research assistant from Michigan State University concerning social relationships. I also understand that during the time my child is in the observation area and being interviewed that I will be interviewed by another research assistant concerning my feelings and attitudes about parenting, and other issues in social development. I understand that my child's teacher may also complete a questionnaire on issues in social development, and that by signing this consent form, I am giving my child's teacher permission to do so. I also understand that my child, his or her teacher, and I am free to choose not to answer any questions without penalty.

I have been informed that both my personal and my child's identity will remain confidential, and that the interview and other measures will be coded so as to protect our privacy. I understand that the videotapes will be viewed only by Marianne McGrath, Ph.D., the project director, and her research assistants who are affiliated with Michigan State University, and will be erased at the completion of the project. I understand that although my child will probably enjoy participating in this project, that it is not a specific treatment of educational program, and no beneficial effects are guaranteed. Finally, I understand that I am free to withdraw my consent and discontinue my child's participation at any time, and that my child will be free to withdraw from the study if for any reason he or she wishes to discontinue participating.

I agree to inform my child beforehand that the or she has the opportunity to be involved in a project where people from Michigan State University are interested in children's activities at different ages, studying the things children like to do by themselves and things they like to do with other children their own age. I also agree to tell my child

that he or she will be with another child his or her own age in an observation area for about a half an hour, and that afterwards he or she will answer some questions in an interview given by an adult who works at MSU. I further agree to obtain my child's spoken agreement to be in this study before I sign and return this consent form to my child's school.

I understand that when the study is completed, I may request a written report that fully describes its purposes, procedures, and results. If I have any questions or problems that arise in connection with our participation in this study, I am welcome to contact Marianne McGrath, Ph.D., the project director, at 355-2162, or I may leave a message at 355-9561. Please complete the following information. Thank you!

_____ _____

(Date)

_____

Signature of Parent(s)

_____ _____

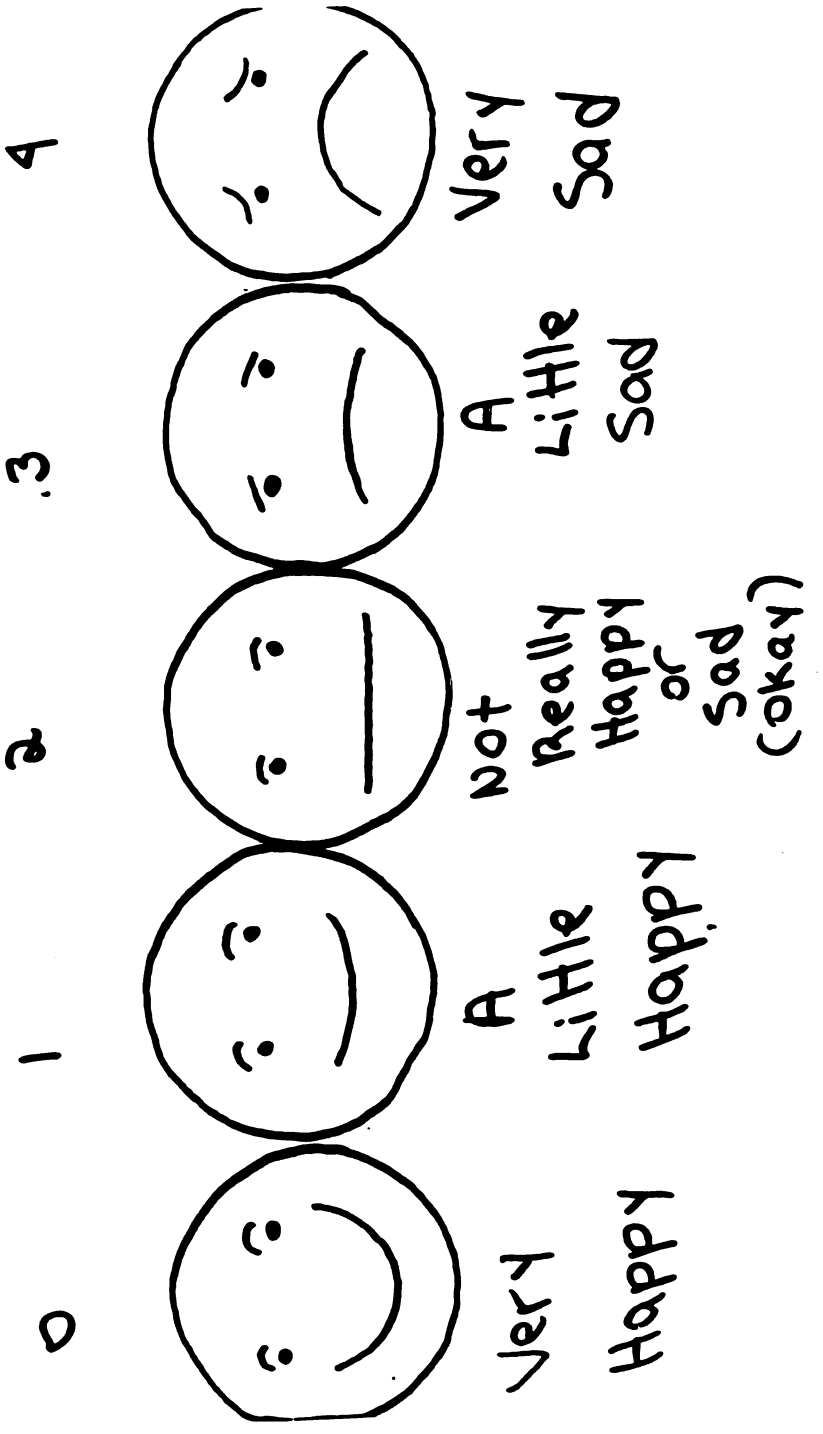
Child's Name (please print) Phone Number

_____ _____

Child's Birthday Teacher's Name

APPENDIX C

STATE EMPATHY SCALE



APPENDIX D

DAVIS (1980) INTERPERSONAL REACTIVITY INDEX

Please read each statement and circle the number which best describes you, using the following scale.

| Does Not Describe Me Well | | | | Describes Me Well |
|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 |

1. I daydream and fantasize, with some regularity, about things that might happen to me.
2. I often have tender, concerned feelings for people less fortunate than me.
3. I sometimes find it difficult to see things from the "other guy's" point of view.
4. Sometimes I don't feel very sorry for people less fortunate than me.
5. I really get involved with the feelings of the characters in a novel.
6. In emergency situations, I feel apprehensive and ill-at-ease.
7. I am usually objective when I watch a movie or play, and I don't often get completely caught up in it.
8. I try to look at everybody's side of a disagreement before I make a decision.
9. When I see someone being taken advantage of, I feel kind of protective towards them.
10. I sometimes feel helpless when I am in the middle of a very emotional situation.
11. I sometimes try to understand my friends better by imagining how things look from their perspective.
12. Becoming extremely involved in a good book or movie is somewhat rare for me.
13. When I see someone get hurt, I tend to remain calm.

14. Other people's misfortunes do not usually disturb me a great deal.

15. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.

16. After seeing a play or movie, I have felt as though I were one of the characters.

17. Being in a tense emotional situation scares me.

18. When I see someone being treated unfairly, I sometimes don't feel very much pity for them.

19. I am usually a pretty effective in dealing with emergencies.

20. I am often quite touched by things that I see happen.

21. I believe that there are two sides to every question and try to look at them both.

22. I would describe myself as a pretty soft-hearted person.

23. When I watch a good movie, I can very easily put myself in the place of a leading character.

24. I tend to lose control during emergencies.

25. When I'm upset at someone, I usually try to "put myself in his shoes" for awhile.

26. When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.

27. When I see someone who badly needs help in an emergency, I go to pieces.

28. Before criticizing somebody, I try to imagine how I would feel if I were in their place.

## APPENDIX E

## PARENTS' RATINGS OF CHILDREN'S EMPATHY QUESTIONNAIRE

This questionnaire asks you to think about how your child relates to other people and deals with different kinds of situations. Some questions will be more difficult than others, because some ask you to judge your child on personality traits that you might not be able to directly observe. Also, remember that there are no right or wrong answers. As we know, children are capable of different feelings, behaviors, etc. at different ages, and one of the purposes of this questionnaire is these age differences. Thank you for your time and thoughtfulness in completing this questionnaire!

| Does Not Describe Her Well | | | | Describes Her Very Well |
|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 |

1. She has tender, concerned feelings for other children or adults less fortunate than herself (the poor, etc.).

2. She sometimes finds it difficult to see things from someone else's point of view.

3. In emergenciy situations, she feels apprhensive and ill-at-ease.

4. She seems to daydream and fantasize with some regularity about things that might happen.

5. Sometimes she doesn't appear to feel sorry for people less fortunate than herself.

6. She really gets involved with the characters in a story.

7. She tries to look at everybody's side of an argument before she decides who's "right."

8. She sometimes feels very helpless when she is in the middle of a very emotional situation.

9. When she sees another person being teased or treated poorly in some way, she feels protective towards that person.

10. She is usually objective when watching a movie or a

play, and she doesn't often get completely caught up in it.

11. She sometimes tries to understand her friends better by imagining how things look from their perspective.

12. When she sees someone get hurt, she tends to remain calm.

13. Other people's misfortunes do not usually disturb her a great deal.

14. Becoming extremely involved in a good book or movie is somewhat rare for her.

15. If she is sure that she is right about something, she doesn't waste msuch time listening to other people's arguments.

16. Being in a tense emotional situation scares her.

17. When she sees someone being treated unfairly, she doesn't feel very much pity for that person.

18. After seeing a play or movie, she has felt as though she was one of the characters.

19. She is usually pretty effective in dealing with emergencies.

20. She believes that there are two sides to every question and tries to look at them both.

21. She is often quite touched or affected by things happening around her.

22. When she watches a good movie, she can very easily put herself in the place of the leading character.

23. She tends to lose control during emergencies.

24. When she is upset at someone, she tries to put herself in that person's shoes for awhile.

25. I would describe her as a pretty "soft-hearted" person.

26. When she is reading an interesting story, she imagines how she would feel if the events in the story were happening to her.

27. When she sees someone who badly needs help in an emergency, she goes to pieces.

28. Before criticizing somebody, she tries to imagine how she would feel if she were in that person's place.

# APPENDIX F

## CHILDREN'S EMPATHY INTERVIEW

I'm going to ask you some questions, and I want you to tell me how much each of these questions tells me about you, and describes what kind of person (Child's name) is.

We're going to use this wooden block with different sized tubes on it. On this one end, there isn't even a tube, it's just a flat circle. But then next to it is a small tube and they keep getting bigger until the one on this end the biggest tube on it. when I ask you a question, I want you to point to the tube that tells me about you the best, and if something's not like you at all, then you can point to the flat circle above "0."

Sample Questions:

Some children like chocolate. Is this like you? How much is this like you?

Let's try another one. Some children like spinach. How much is this like you?

Here's one more for practice. Some children like books. How much is this like you?

Okay, here are some more questions, and answer them just like you've been doing. If a question seems too hard or you don't understand it, just let me know.

1. Some kids like to daydream about what it would be like when they're grownups. Is this like you? How much is it like you?

2. Some kids feel sorry for their classmates who get in trouble from the teacher. Do you feel sorry for those kinds of kids? How much do you feel sorry for them?

3. Some kids get scared when they see another child in trouble who needs help fast (or who's hurt and really needs help). Is this like you? How much is this like you?

4. Some kids think the people on TV are real and they can understand how those people on TV feel. Is this like you? How much is this like you?

5. Some kids get scared when they see pictures of children in the hospital. Is this like you? How much is this like

you?

6. Some kids treat their dolls or stuffed animals as if they had real feelings. Is this like you? How much is this like you?

7. When some kids see somebody else get hurt, it makes them sad. Is this like you? How much is this like you?

8. Some kids would be scared a lot if their friend was hurt badly and it was up to them to get help. Is this like you? How much is this like you?

9. Some kids cry or feel upset during sad movies or books. Is this like you? How much is this like you?

10. When some kids see other people laughing and having fun together, it makes them happy. Is this like you? How much is this like you?

11. Some kids get afraid if they see someone get hurt. Is this like you? How much is it like you?

12. When parents or teachers tell some kids stories, those kids like to pretend that they are the person or character in that story. Is this like you? How much is this like you?

13. When some kids see a person crying, it makes them feel like crying, too. Is this like you? How much is this like you?

14. When some kids watch a movie, they pretend that <u>they're</u> the star of the movie. Is this like you? How much is this like you?

15. Some kids feel sad or worried that other children are sick. Is this like you? How much is this like you?

16. When someone is being teased, instead of joining in the teasing, some kids will try to imagine how they would feel if they were the person being teased. Is this like you? How much is this like you?

17. When some kids see somebody get hurt, they get all worried and nervous. Is this like you? How much is this like you?

18. Some kids would like to switch places with the characters in their favorite movie/book for a day. Is this like you? How much is this like you?

19. Some kids try to be nice to other children who get picked on a lot at school. Is this like you? How much is this like you?

20. When some kids have a fight with their friend, they try to understand why their friend is acting the way he/she is. Is this like you? How much is this like you?

21. Some kids wouldn't like to be a doctor because it would be scary to see and have to try to make sick people feel better. Is this like you? How much is this like you?

APPENDIX G

PEER EXPERIENCE QUESTIONNAIRE

1. Please list the names, gender, and age of all the children living in your home.

| Name | Gender | Age |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

2. Did you child regularly attend a child care facility or nursery school or go to a babysitter's home in which there was at least one other child within one year of their age before he/she started kindergarten? Yes No
(If no, skip to question 12)

3. Which of the following best describes the type of childcare experience your child had?

_____ Childcare center
_____ Home-based center
_____ Home-based care with relative or friend

4. What was your child's age in months when he or she first began daycare? _____ months

5. For how many hours a day did your child attend?
_____ hours

6. For how many days a week did your child attend?
_____ days

7. How many months total did your child attend childcare/nursery school before starting kindergarten?
_____ months

8. Did your child attend the same daycare/nursery school for the entire time he or she was involved? Yes No
If no, how many different facilities did your child attend?
_____

9. What was the longest period of time (in months) in which your child attended the same facility with the same peer group? _____ months

10. How many children were in your child's class or group in the childcare facility mention in question 9? _____

11. How many adults were directly involved with the class or group your child was in? _____

12. Does your child have one or two best friends with whom he or she spends a considerable amount of time with outside of school? (Siblings may be included) Yes No

13. If you answered Yes to question 12, please estimate how many hours per week your child spends with his/her friend.
_____ hours

14. Is your child involved with any groups (e.g. sport teams, girl scouts, etc.) that meet regularly outside of school? Yes No
Please list _____

15. Does your child currently go to a daycare center or babysitter after school? Yes No
If No, skip the following questions.

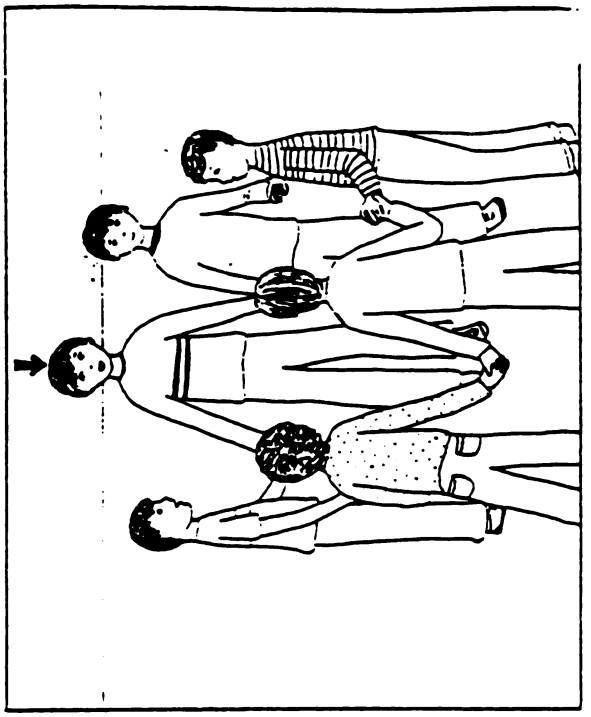
16. For how long? _____ months

17. How many days a week? _____ days

18. Please use this space to make any comments about your child's experience with children his or her age that were not covered in the questions above.

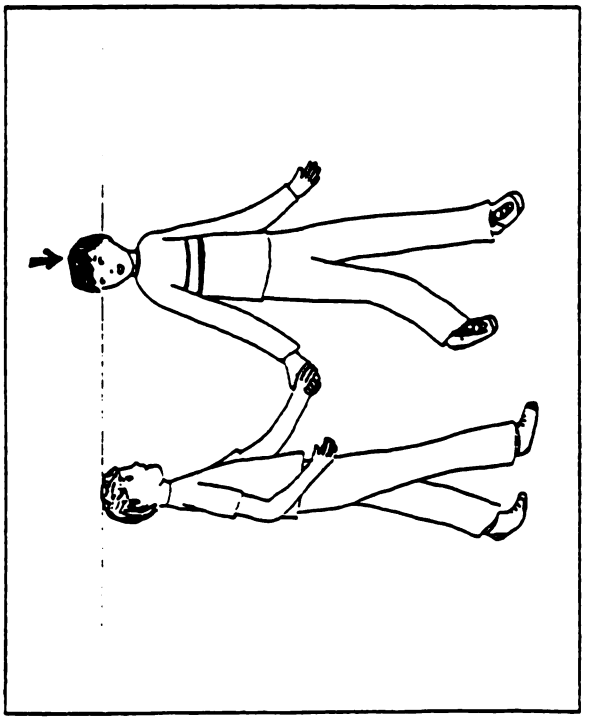
APPENDIX H

SAMPLE ILLUSTRATION FROM THE PEER ACCEPTANCE SCALE



This boy doesn't have very many friends to play with.
Do you have:

A few — 2 — OR — Hardly any friends — 1



This boy has lots of friends to play with.
Do you have:

A whole lot of friends to play with — 4 — OR — Pretty many — 3

## APPENDIX I

## PARENTING DIMENSIONS INVENTORY

This questionnaire was developed to learn about parents' attitudes and behavior concerning their children. Different parents will answer these questions differently, and there are no right or wrong answers. Please read and answer <u>each</u> item according to your personal views or behavior. Even if an answer does not exactly reflect your own opinion or behavior, please choose the response that is closest. Your answers to this questionnaire will be completely confidential.

I. The following statements represent matters of interest and concern to some parents. Not all parents feel the same way about them. Please circle the number which most closely applies to you and the child you have brought with you to the play session today. Please use the following scale in choosing your answers:

| Not at all Descriptive of me | Slightly | Somewhat | Fairly | Quite | Highly |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

1. I encourage my child to talk about his or her troubles.

2. I always follow through on discipline for my child, no matter how long it takes.

3. Sometimes it is so long between the occurrence of a misbehavior and an opportunity for me to deal with it that I just let it go.

4. I do not allow my child to get angry with me.

5. There are times I just don't have the energy to make my child behave as he or she should.

6. My child can often talk me into letting him or her off easier than I had intended.

7. My child convinces me to change my mind after I have refused a request.

8. I think a child should be encouraged to do things better than others.

9. My child and I have warm, intimate moments together.

10. I encourage my child to be curious, to explore, and to question things.

11. I find it interesting and educational to be with my child for long periods.

12. I don't think children should be given sexual information.

13. I believe that a child should be seen and not heard.

14. I believe that it's not always a good idea to let children start talking about their worries.

15. I encourage my child to express his or her opinions.

16. I make sure my child knows that I appreciate what he or she tries to accomplish.

17. I let my child know how ashamed and disappointed I am when he or she misbehaves.

18. I believe in toilet training a child as soon as possible.

19. I believe that most children change their minds so frequently that it is hard to take their opinions seriously.

20. I have little or no difficulty sticking with my rules for my child even when close relatives (including grandparents) are there.

21. When I let my child talk about his or her troubles, he or she ends up complaining even more.

22. I expect my child to be grateful to his or her parents and appreciate all the advantages he or she has.

23. Once I decide how to deal with a misbehavior or my child, I follow through on it.

24. I respect my child's opinion and encourage him/her to express it.

25. I never threaten my child with a punishment unless I am sure I will carry it out.

26. I believe that once a family rule has been made, it should be strictly enforced without exception.

_____

_____

II. Listed below are pairs of statements concerning parents' attitudes towards childrearing. For each pair, choose the one statement (A or B) that most represents your attitude, and place a checkmark in front of the letter that precedes that statement. Make sure that you choose either A or B for each, even if you agree with neither or with both. In those cases, please choose the opinion that is closest to or best represents your point of view.

1. _____ A. Nowadays, too much emphasis is placed on obedience for children.
   _____ B. Nowadays, parents are too concerned about letting children do what they want.

2. _____ A. Children need more freedom to make up their own minds about things than they seem to get today.
   _____ B. Children need more guidance from their parents than they seem to get today.

3. _____ A. I care more than most parents I know about having my child obey me.
   _____ B. I care less than most parents I know about having my child obey me.

4. _____ A. I try to prevent my child from making mistakes by setting rules for his/her own good.
   _____ B. I try to provide freedom for my child to make mistakes and learn from them.

5. _____ A. If children are given too many rules, they will grow up to be unhappy adults.
   _____ B. It is important to set and enforce rules for children to grow up to be happy adults.

III. Listed below are characteristics of children which some parents feel are important to encourage. Not all parents agree about the importance of each item. Please think about the child you brought with you to the play session today when you complete this questionnaire. For each item, circle the number which most closely reflects your view of how important it is to encourage that characteristic in your child. Try to be discriminating in rating the importance of each item, and please use the full range of the rating scale from 1 to 5.

| Not at all Important | Slightly Important | Somewhat Important | Quite Important | Very Important |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

How important is it for you to encourage your child to...

| | | | | | |
|---|---|---|---|---|---|
| be courteous and considerate | 1 | 2 | 3 | 4 | 5 |
| be self-reliant | 1 | 2 | 3 | 4 | 5 |
| be concerned about the welfare of others | 1 | 2 | 3 | 4 | 5 |
| develop originality and expressiveness | 1 | 2 | 3 | 4 | 5 |
| not accidentally harm self | 1 | 2 | 3 | 4 | 5 |
| be moral and ethical | 1 | 2 | 3 | 4 | 5 |
| acquire and apply knowledge | 1 | 2 | 3 | 4 | 5 |
| seek out and enjoy the company of others | 1 | 2 | 3 | 4 | 5 |
| watch out for his/her own needs | 1 | 2 | 3 | 4 | 5 |
| work hard toward achieving goals | 1 | 2 | 3 | 4 | 5 |
| be effective in what he/she does | 1 | 2 | 3 | 4 | 5 |
| be emotionally well-adjusted | 1 | 2 | 3 | 4 | 5 |
| obey authority | 1 | 2 | 3 | 4 | 5 |
| not accidentally harm or inconvenience others | 1 | 2 | 3 | 4 | 5 |

IV. For each of the following statements, circle the number which indicated how often the statement is true of your family.

| Never | Once in a while | Sometimes | Frequently | Most of the time | Always |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

1. We have a regular dinner schedule each week.

2. Our house is clean and orderly.

3. Our family is organized and "together."

4. We get everything done around the house that needs to be done.

_____

_____

V. Listed below are several situations which frequently occur in childhood. You may or may not have had these experiences with your child. Imagine that each has just occurred, and rate how likely it is that you would do each of the responses listed below the situation.

| | Very Unlikely | | | | Very Likely |
|---|---|---|---|---|---|
| Let situation go | 1 | 2 | 3 | 4 | 5 |
| Take away a privilege (e.g., no TV tonight) | 1 | 2 | 3 | 4 | 5 |
| Assign an additional chore | 1 | 2 | 3 | 4 | 5 |
| Take away something material | 1 | 2 | 3 | 4 | 5 |
| Send to room | 1 | 2 | 3 | 4 | 5 |
| Physical Punishment | 1 | 2 | 3 | 4 | 5 |
| Reason with child | 1 | 2 | 3 | 4 | 5 |
| Have child stay inside house | 1 | 2 | 3 | 4 | 5 |
| Yell at child | 1 | 2 | 3 | 4 | 5 |
| List and circle anything else you might do: | | | | | |
| Other:_____ | 1 | 2 | 3 | 4 | 5 |
| Other:_____ | 1 | 2 | 3 | 4 | 5 |

1. Your child has gone outside without picking up his or her toys as you requested.

2. After arguing over toys, your child hits a playmate.

3. Your child becomes sassy while you discipline him or her.

4. You receive a note from your child's teacher that your

child has been disruptive at school.

5. You catch your child lying about something he or she has done that you would not approve of.

6. You see your child playing at a busy street which you have forbidden him or her to go near for safety reasons.

_____

_____

Is there any other area of childrearing that you feel is particularly important for the child that you have brought to the play session? If so, please describe what the issue is, how you might encourage or discourage beliefs or behavior, and <u>why</u> you think it is such an issue -- due to your child's age, his or her individual personality, etc. Also, thanks again for your time and thoughtfulness in completing this survey, and for contributing to our knowledge of children's social development.

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