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thesis entitled

Self-image Disparity, Empathy, and Prosocial Behavior in Children

presented by

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has been accepted towards fulfillment
of the requirements for

M.A. degree in Psychology

Major professor

Date 5/31/91

DATE DUE	DATE DUE	DATE DUE
APR 30 [illegible]		
[illegible] MAGIC 2		
OCT 2 8 6 1998		
MAR 0 6 05 MAR 2 4 2005		

SELF-IMAGE DISPARITY, EMPATHY, AND PROSOCIAL BEHAVIOR IN CHILDREN

By

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A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

Department of Psychology

1991

ABSTRACT

SELF-IMAGE DISPARITY, EMPATHY, AND PROSOCIAL BEHAVIOR IN CHILDREN

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The present study investigated real and ideal self-image, the discrepancy between them (known as self-image disparity), and their relationship to empathy and prosocial behavior. Previous research has demonstrated that the three constructs of self-image disparity, empathy, and prosocial behavior are related to many of the same variables such as cognitive differentiation, guilt, chronological age, non-egocentrism, and moral judgement. Based on this, it was predicted that self-image disparity would be positively related to empathy and prosocial behavior. One-hundred twelve children at three ages completed measures of self-image and empathy, and had the opportunity to behave prosocially in a laboratory playroom. Results revealed that self-image disparity was negatively related to both trait and state empathy and positively related to prosocial behavior. Real self-image was positively related to trait empathy. Ideal self-image was not related to either empathy or prosocial behavior. Significant age effects were revealed for real and ideal self-image and self-image disparity. Significant sex effects were revealed for trait empathy. Age by sex interaction effects approached statistical significance for both trait and state empathy.

ACKNOWLEDGEMENTS

I would like to thank the members of my thesis committee, Dr. Marjorie Kostelnik, Dr. John McKinney, and Dr. Marianne McGrath, for their assistance and support throughout this study. In particular, I would like to thank my academic advisor and committee chairperson, Dr. Marianne McGrath, for the advice, time, and encouragement she offered during the entire course of this research.

I also wish to thank each and every one of the parents and their children who took time out of their busy schedules to participate in this study. Clearly, without them, this study would not have been possible.

I would also like to thank Dr. Paulette Valliere for her assistance in developing the figures presented in the results section.

Finally, I wish to thank my husband, Holger, for his continued support and encouragement and my family for their persistent faith in me.

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INTRODUCTION

Within the last decade, there has been a resurgence of interest in the self as a psychological construct and its role in a number of behaviors. The present study will investigate those aspects of the self-image referred to as the real and ideal selves. The real self refers to one's current view of the self, and the ideal self refers to the way one would like to be. The discrepancy experienced between one's real and ideal self-image, known as self-image disparity, and its relationship to empathy and prosocial behavior will be investigated. This proposed relationship is based on a comparison of the research on self-image disparity, empathy, and prosocial behavior, which reveals that these constructs are related to many of the same variables, including cognitive differentiation, guilt, chronological age, non-egocentrism, and moral judgement.

REVIEW OF THE LITERATURE

1. Issues in the Study of the Self

A. Overview

Theories concerning the self (Mead, 1934; Cooley, 1902; James, 1890 and Epstein, 1973) have emphasized a number of different dimensions in proposing how the self develops and what components are essential to that development. Because a thorough review of all these theories is beyond the scope of this paper, only three issues relevant to the present study will be considered. The first involves definitional issues concerning various aspects of the self. One of the most basic distinctions is between the self as subject and the self as object. The distinction between self-image and self-esteem will also be discussed briefly in this section. The second issue concerns whether the self is best described as a uni-dimensional or multi-dimensional construct. The third issue is the question of what processes are responsible for development of the self. Most theories have focused on either the role of social interaction (Mead, 1934 and Cooley, 1902) or on the role of competence (James 1890 and Epstein, 1973).

B. Self as Subject Versus Self as Object

As Harter (1988) points out, the construct of self, like many other psychological constructs, can assume a

number of different definitions. Therefore, it is necessary to distinguish among those terms relating to this construct and to specify which definition the present study will adopt.

William James (1890/1963) was one of the first to express the notion that there are two fundamental aspects comprising the self system. James differentiated between the self as actor or subject, known as the "I", and the self as object, known as the "Me". The "I" or the self as subject is the self which thinks about or behaves in response to external stimuli. The "Me" aspect of the self is experienced when awareness is focused on how the self relates to various stimuli (both internal and external). In this mode, the thinking is focused on the self as object.

Corresponding to James' notion of the self as subject is Lewis' and Brooks-Gunn's (1981) concept of the existential self. The existential self refers to knowledge of the self as separate from others; the ability to perceive the self as distinct from other persons. Following development of the existential self, the categorical self begins to take form. Corresponding to James' notion of the self as object, the categorical self refers to the different classes by which one defines oneself in relation to the external world.

Wylie (1974, 1979) summarizes the essence of these distinctions, contrasting the self as active agent with the

self as object of one's knowledge and evaluation. The "I", the self as subject, and the existential self all refer to that part of the self which is the active observer. This component does not make any appraisals or judgements about the self; this aspect is merely aware that the self exists separately from others in the world. The "Me", the self as object, and the categorical self all refer to that aspect which evaluates the self. This part of the self is actively involved in appraising one's personality and behavior.

Burns (1979) also addresses definitional issues related to the self. The issues Burns addresses, however, focus mainly on the "Me" or the "self as object" aspect of the self. He suggests that the self as object is composed of several facets, each warranting separate consideration. Burns proposes that the "Me" aspect of the self is a composite image of what we think we are (basic self-concept), what we think we can achieve (possible self), what we think others think of us (social self), and what we would like to be (ideal self).

In addition, it is important to clarify the distinction between self-image and self-esteem, both of which relate to the notion of "self as object". As Shavelson, Hubner and Stanton (1976) note, one of the features of the self-image is its evaluative character. Not only does the individual develop a description of the self in a particular context, one also forms evaluations of the self in these contexts.

According to Shavelson et al.(1976), evaluations can be made against absolute standards one sets for the self, such as the "ideal", and they can be made against relative standards, such as perceived evaluations of "significant others". However, the mere evaluation of self against ideal or perceived evaluations of others should not be misconstrued into an index of self-esteem. It may become an index of self-esteem only when one has considered the relative importance of the content area to the individual. Considering the individual's ideal standard in a particular area does not necessarily provide a rating of how important the content area is to the individual. For example, when a child states that he is poor in math and he is able to recognize that ideally, it may be advantageous to do well in math, one cannot automatically assume the child has low self-esteem. Perhaps doing well in math is really not that important to him. Therefore, without rating the relative importance of the particular content area to the individual, an index of self-esteem cannot be automatically assumed from a measure of the child's ideal self-image. The next issue to be considered is whether the self is best viewed as a uni-dimensional or multi-dimensional construct.

C. Uni-Dimensional Versus Multi-Dimensional Models of Self

The issue of whether the self is best viewed as a uni-dimensional construct or as a multidimensional construct has been a long-standing debate among those interested in

self-image research. A uni-dimensional model of the self is based on the assumption that the self-image is a unitary, global construct. The model of Coopersmith (1967) best represents such a tradition. His Self-Esteem Inventory was based on the assumption that the self-image is a unitary construct best assessed by presenting the subject with items tapping a range of contexts, such as the child's sense of self in school, with friends, and with family. Such a model dictates that one must sum the child's responses across all items, giving them equal weight. It is assumed that the single summary score resulting from this combination will adequately reflect an individual's sense of self across the various areas of his or her life.

Similar models based on a uni-dimensional perspective of self were the prevailing models of earlier self theories (Cooley, 1902; Mead, 1934; Rogers, 1951; Piers-Harris, 1969). A uni-dimensional perspective of the self-image, however, has been challenged by recent theorists who argue that such an approach is not sensitive to important evaluative distinctions that children make about their abilities in different domains of their lives. In response to this criticism, recent theorists have moved toward models emphasizing a multi-dimensional perspective.

The multi-dimensional perspective assumes that the self-image involves a more differentiated aggregate of self-evaluations. Researchers have identified various domains of

self-evaluation, assessing each one separately (Mullener and Laird, 1971; Harter, 1985, 1986; L'Ecuyer, 1981; Shavelson, Hubner, and Stanton, 1976). Two of these approaches (Marsh, 1987 and Harter, 1985, 1986) have now met with considerable empirical support for an underlying multi-dimensional model.

Marsh's (1987) Self-Description Questionnaire is one measure which reflects a multi-dimensional perspective. The measure identifies seven separate domains: Scholastic, Math, Reading, Physical, Peer, and Parent dimensions of self-evaluations. Factor-analytic studies on Marsh's instrument have been conducted and they reveal the existence of these separate components of the self-image (Marsh, 1987).

Harter's (1985, 1986) Self-Perception Profile for Children also represents a multi-dimensional approach to the construct of self. An adaptation of this measure for younger children, the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter and Pike, 1984; see Appendix C), involves two general factors: social acceptance and perceived competence. Within each of these factors, there are two subscales. Social acceptance is divided into peer acceptance and maternal acceptance. Perceived competence is divided into cognitive competence and physical competence. This approach is based on the assumption that children do not view themselves as equally adequate in all domains; rather, they are capable of making meaningful distinctions between

different domains.

Support for this assumption was demonstrated through factor-analytic studies conducted on the Self Perception Profile measure which revealed that children do indeed differentiate between the domains (Harter, 1985, 1986). Additionally, subscale reliabilities of The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (1984) were calculated using coefficient alpha to provide an index of internal consistency. Considering individual subscales such as maternal acceptance and peer acceptance, reliabilities ranged from .50 to .85. When combining the subscales into their designated factors (either social acceptance or perceived competence), the reliabilities increased substantially, with a range of .75 to .89. For example, reliabilities for the subscale of cognitive competence ranged from .52 to .79 and reliabilities for the subscale of physical competence ranged from .50 to .66. When combining them into the one factor of competence, however, the reliabilities increased, ranging from .66 to .80 (Harter and Pike, 1984).

Validity concerning the children's responses was also obtained. For the competence factor, children were asked to provide reasons behind the responses they had given. This procedure was conducted to determine whether or not children could provide a rationale for their answers and whether those answers were consistent with the particular

self-judgement previously given. Harter and Pike (1984) found that approximately 96% of the children were able to provide specific reasons that supported the self-image ratings they had previously given.

A test of validity for the social acceptance factor was conducted as well. For the peer acceptance subscale, the scores of children who had recently moved and who had been in a new school less than 2 months were examined. It was predicted that these children would have lower peer acceptance scores than children who had been in the school for a minimum of one year. Consistent with this, the peer acceptance scores of the "new" children were significantly lower than those among the comparison group. For the maternal acceptance subscale, Harter and Pike (1984) predicted that depression in young children would be directly related to lack of maternal acceptance. While they did not have any severely depressed children in their sample, they did find a negative correlation between children's depression and maternal acceptance.

These studies provide compelling evidence for a differentiated model of the self, which justifies separate assessment of each domain.

D. Social Interaction and Competence in Development of Self

Most theories have focused either on the role of social interaction or on the role of competence in explaining the development of the self-image. For example, both Mead

(1934) and Cooley (1902) believe that knowledge of the self and knowledge of others are interdependent. Both believe that some facet of social interaction is responsible for the development of the self.

Mead (1934) asserts that social interaction is necessary for self development because it provides opportunities for role-taking. Mead believes that role-taking is a social construction which involves reflecting on the self from the perspective of those around us. In other words, it is an attempt to view the self in the way that others see it. Mead proposed that the self develops in stages, and each are marked by a social activity that represents a particular form of role-taking.

According to Mead (1934), the first stage, referred to as the "play stage", is characterized by the child's play at reciprocal roles. For example, the child punishes him- or herself as a parent or praises him- or herself as a teacher. In this form of play, the child passes from one role to another. This play represents the simplest form of being another to oneself. At this stage, the child views the self from the standpoint of particular others. However, because the child is not yet able to integrate these various perspectives, Mead contends that the self lacks organization and stability.

The "game stage" is characterized by the child's involvement in organized, rule-bound activities. The

essential difference between this and the play stage is that during the game stage, the child must understand the attitudes and perspectives of a number of individuals rather than just one single person. For example, as a hitter in a baseball game, it is helpful to understand the aims and goals of both the pitcher and the basemen. This allows the individual to anticipate their actions to some degree and to subsequently become a better player. Practice at doing this allows one to organize and generalize the attitudes of particular others, thereby creating the standpoint of the generalized other. As a result, self-reflection from the standpoint of the generalized other constitutes the more fully, completely developed self-image, or the "organized self", according to Mead.

Cooley (1902) also stressed the importance of social interaction in the development of the self. Cooley claimed that the self-image is largely a function of other's reactions to us, whether the reactions are real or imagined. According to Cooley, what we believe others think of us, such as our appearance, aims, deeds, character, and so on, is what actually becomes the self. Those in our social network play the role of a mirror, leading Cooley to the concept of the "looking-glass self". Cooley proposed three aspects of the looking-glass self: 1) the traits that we believe others think we possess; 2) how we believe others judge those traits, and 3) how we feel in response to those

judgements, such as pride or shame.

While Mead and Cooley emphasize the role of social interaction in the development of the self, others stress the importance of competence. Because one's sense of competence in a variety of areas plays a significant role in one's evaluation of the self, it is an area which warrants consideration.

William James (1890) was one of the first to point out the importance of one's sense of competence. James asserted that one's sense of self was the ratio of one's "successes" to one's "pretensions". By "pretensions", James was referring to the goals or aspirations one sets for the self. In doing so, he was suggesting that the relationship between one's competence and one's aspirations was essential in evaluating the self and forming the self-image. These concepts of "successes" and "pretensions" are similar to the concepts of real self-image and ideal self-image, as will be discussed later.

Contemporary models of the self have also identified the dimension of competence (e.g, Epstein, 1973; Gordon, 1969; Hales, 1979; Harter, 1983; L'Ecuyer 1981; Mullener and Laird, 1971; Shavelson, Hubner, and Stanton, 1976). Many measures used to assess self-image have typically included items and subscales tapping a range of competencies (e.g, Coopersmith, 1967; Harter, 1982; Piers and Harris, 1969). Areas assessing such competencies include academic skills,

athletic skills and social skills.

While many models of self development focus on either social interaction or on competence, the work of Susan Harter provides a model that emphasizes both. Harter's and Pike's (1984) Pictorial Scale of Perceived Competence and Social Acceptance for Young Children involves two general constructs: perceived social acceptance and perceived competence. The perceived social acceptance construct incorporates Mead's and Cooley's emphasis on the role of social interaction in the development of the self-image. The two subscales for this construct tap peer interactions as well as mother-child relations. This suggests that Harter, like Cooley and Mead, believes that self-image development is largely dependent upon one's social interaction, particularly that involving parents and peers.

Alternatively, the perceived competence construct incorporates James' emphasis on the role of competence in self development. The two subscales for this construct are physical and cognitive competence. These two subscales tap children's sense of competence in such activities as math, reading, and writing for the cognitive subscale, and running, skipping, and climbing for the physical subscale. This would suggest that, in line with the notions of James, Harter believes that one's self-image is also derived from a sense of acquired competence within and across various domains.

In summary, the present study will consider two aspects of the "self as object"; the real self and the ideal self, within a multi-dimensional perspective that considers the influence of both social interaction and competence. Moreover, it will consider how the discrepancy between the real and ideal self, known as self-image disparity, relates to empathy and prosocial behavior.

2. Self-Image Disparity

A. Overview

This section will first explore the concept of self-image disparity in greater detail. Next, self-image disparity as it relates to a number of variables, such as cognitive differentiation, guilt, chronological age, non-egocentrism, and moral development, will be considered. Self-image disparity refers to the discrepancy between one's current view of the self (real self-image) and the person one would like to be (ideal self-image). This concept reflects the views of James (1890) discussed earlier. The concept of real self-image captures James' notion of "successes" and the concept of ideal self-image is often similar to his notion of "pretensions". At first glance, the concept of self-image disparity may appear to represent what James considered the difference between one's "successes" and one's "pretensions". It should be noted, however, that James' concept of "successes" versus

"pretensions" is more closely related to self-esteem than is the concept of self-image disparity. The distinguishing factor is the importance of the content area to the individual. James' idea of "pretensions", or aspirations, necessarily implies that the content area is indeed important to the individual, otherwise, it would not be one of their aspirations. Self-image disparity, however, does not tap the importance of the content area. It only measures the discrepancy between the real and ideal self, not whether the content area relates to one of the individual's aspirations.

Most studies investigating the real and ideal aspects of the self have employed two measures developed by Achenbach and Zigler (1963) and adapted in 1967 by Katz and Zigler for children (Katz, Zigler and Zalk, 1975; Leahy, 1981; Leahy and Huard, 1976; Zigler and Watson, 1972). One measure consists of 30 statements about the self, half of them positive ("I am popular with the other kids"), half of them negative ("I often wish I were someone else"). In assessing real self-image, the subject is asked to respond to that statement using one of six alternatives ranging from "This is very true of me" to "This is very untrue of me". In assessing ideal self-image, the subject is given the same statements in a different order and is asked to respond using one of six alternatives ranging from "I would like this to be very true of me" to "I would like this to be very

untrue of me".

The other measure consists of a list of 20 adjectives, 10 of them positive (successful) and 10 of them negative (dishonest). In assessing real self-image, the subject is asked to respond with a "yes" or a "no" as to whether that adjective describes him or her. In assessing ideal self-image, the subject is given the same adjectives in a different order and is asked to respond with a "yes" or a "no" as to whether they would like that adjective to describe him or her. Self-image disparity is assessed by noting the number of times the subject makes a response on the ideal-self questionnaires which is different from the response he or she makes to the same item on the real-self questionnaires. This is done for both the 30-item questionnaire and the 20-item adjective list.

Phillips and Zigler (1980) used yet another measure in a study investigating self-image disparity among young children. The measure consists of a series of 10 four-frame pictures, each depicting a child described in some evaluative context. A statement is made about the child in each of the four frames. For example:

> Frame 1: "This girl (boy) is very smart; she has just gotten all A's on her report card". Frame 2: "This girl (boy) is pretty smart, she has just gotten all B's on her report card." Frame 3:" This girl (boy) is not too smart; she has just gotten all C's on her report card." Frame 4: "This girl (boy) is not smart at all; she has just gotten all D's on her report card." (C. Efron, personal communication to D. Phillips, 1977).

In assessing real self-image, the child is asked "Which girl (boy) is most like you?" In assessing ideal self-image, the child is asked "Which girl (boy) would you most like to be?" A score of 4 is given to the most positive answer (i.e., choosing the frame where the child earned all "A's") and a score of 1 is given to the most negative answer (i.e., choosing the frame where the child earned all "D's"). The range of possible scores is from 40 to 10. Disparity is assessed by obtaining the absolute difference between the score obtained for the real assessment and the score obtained for the ideal assessment.

When children with high self-image (S-I) disparity are compared to those with low S-I disparity, studies find that high S-I disparity can be due to either a high ideal self-image and a low real self-image (Katz and Zigler, 1967) or to a high ideal self-image alone (Leahy and Huard, 1976). An individual who has a high or positive ideal self-image would be one who sets high goals and standards of conduct for the self as compared to one who has a negative or low ideal self-image. For example, one who has a high ideal self-image may see going to medical school and graduating with honors by the time he or she is 22 as his or her ideal. On the other hand, one with a low ideal self-image may picture simply finishing high school and getting a job as his or her ideal. An individual with a negative or low real self-image is one who sees the self as

not possessing certain abilities or not being accepted by others to the greatest extent that is possible.

Earlier views on self-image disparity, such as that offered by Rogers and Dymond (1954), maintained that congruence between the real and ideal aspects of the self-image was indicative of a socially and personally well adjusted individual. Consequently, many believed that a discrepancy between the real and ideal self-image implied social and personal maladjustment (Scott, 1958). As a result, therapy often focused on the reduction of the discrepancy between the real and ideal aspects of self perception (Raimy, 1948; Rogers and Dymond, 1954; Sheerer, 1949; Stock, 1949).

In contrast to the framework proposed by Rogers and Dymond, the cognitive-developmental perspective interprets increasing disparity between the real and ideal self-image as a natural process that follows from normal development (Achenbach and Zigler, 1963). Therefore, self-image disparity is viewed as the natural concomitant to normal growth and development. The next sections provide a review of studies on self-image disparity and how it relates to a number of variables within a cognitive-developmental framework.

B. Self-Image Disparity and Cognitive Differentiation

Achenbach and Zigler (1963) were among the first to present evidence supporting the view that self-image

disparity is not necessarily indicative of maladjustment but rather, may be related to certain indices of developmental maturity. One of their hypotheses was that S-I disparity would be related to cognitive differentiation. Belief in a relationship between self-image disparity and cognitive differentiation was based on the developmental principles set forth by Werner (1948, 1957) and Piaget (1951, 1960). Consistent with these principles, higher levels of development imply greater degrees of differentiation. Cognitive differentiation is the ability to make use of several categories and to make fine distinctions within those categories when dealing with objects and concepts in the world. For example, Achenbach and Zigler, (1963) and Harter, (1988) have noted that young children's answers to interview questions are often extreme in nature as they tend to choose such responses as "very true" or "very untrue" rather than a response that reflects greater differentiation, such as "somewhat true" or "somewhat untrue". This is consistent with earlier findings reported Light, Zax, and Gardener (1965), who found that older and brighter children made fewer extreme responses in rating Rorschach inkblots on semantic differential scales.

Achenbach and Zigler (1963) assessed twenty psychiatric and twenty non-psychiatric patients (patients hospitalized for reasons unrelated to psychiatric status) on real and ideal self, cognitive differentiation, and a measure of

social competence. Real and ideal self were assessed using the 30-item questionnaire and the 20-item adjective checklist described earlier. "Social competence" was measured using the variables of age, employment history, education, intelligence and marital status. The two self-image measures allowed them to test whether self-image disparity was related to cognitive differentiation because each measure differed in the amount of possible response differentiation. One provided six possible alternatives to choose from and the other provided only a "yes" or "no" response from which to choose. Achenbach and Zigler reasoned that if cognitive differentiation does contribute to self-image disparity, the instrument allowing little response differentiation would produce smaller group differences between those scoring high and those scoring low on the social competence index than would the 6-point Likert scale.

The findings supported the view that greater cognitive differentiation contributed to group differences in self-image disparity: the subjects with the highest self-image disparity scores showed the greatest degree of cognitive differentiation. This was based on the fact that where response differentiation could become manifest, such as on the real-ideal questionnaire that offered six possible response alternatives, the group differences were greatest. No study to date has directly examined the relationship

between self-image disparity and cognitive differentiation in children.

C. Self-image Disparity and Guilt

Recent evidence provided by Eastberg et al. (1988) establishes a relationship between self-image disparity and guilt. Fifty-seven adult males and females were given three self-report questionnaires to assess real self, ideal self, and guilt. Subjects rated themselves twice according to adjectives (e.g, successful, dishonest) along a 7-point Likert scale, once according to real self ("Me as I am now") and once according to their ideal self ("Me as I would like to be"). Self-image disparity was calculated by subtracting the real score from their corresponding ideal scores. The differences between these scores was totaled, yielding a real-ideal self discrepancy.

The Revised Mosher Guilt-Conscience Inventory (Mosher, 1988) was given to measure guilt. According to Mosher, guilt is "a generalized expectancy of self-mediated punishment for violating or anticipating violating internalized standards of proper conduct" (1968, p.690). Mosher's index of guilt contains three subscales, sex guilt, hostility guilt, and morality-conscience guilt. Eastberg (1988) was interested only in the relationship between morality-conscience guilt and self-image disparity. Morality-conscience guilt is guilt relating to violations of one's morals. Fifty items were presented followed by two

response alternatives, with one reflecting high guilt and the other reflecting low guilt. For example, one item read, "A guilty conscience: A) does not bother me too much (-2) or B) is worse than a sickness to me (+2)". Guilt scores were calculated by adding the numbers for each response (+2, high guilt response and -2, low guilt response) that was chosen by the subject. Findings revealed a significant positive relation (r=.51) between self-image disparity and guilt. Therefore, the findings suggest that self-image disparity is indeed related to guilt.

While there are no studies linking self-image disparity to guilt in young children, the work of Harter (1982) suggests that a number of emotions are related to development of the self. While she does not directly address the concept of guilt, she does discuss shame, a closely related affect. Children aged 3 to 10 were asked to define pride and shame. The youngest subjects were unable to define these terms, although they could give adequate definitions of happy, mad, sad, and scared. The four-and five-year olds could identify pride as a "good" feeling and shame as a "bad" feeling, but were unable to give an example of appropriate situations in which these would occur. The first adequate examples or definitions to emerge were found among the five- to seven-year olds. However, these examples were focused on how <u>others</u> could be proud or ashamed of the <u>self</u>. For example, "dad was proud of me when I took out the

trash." It was not until eight years of age or older that children could give acceptable examples of how one could be proud or ashamed of oneself. Harter suggests that this four-stage sequence implies that "self-affects" undergo a developmental process possible only when the child is able to view the self as an object of evaluation. Accordingly, one is able to view the self as an object of evaluation only when one can compare the way one currently is (real self) with some other standard, whether it be standards set forth by family and friends or internal standards and goals set on a more personal level. Either way, it involves comparing one's current self (real self) with some ideal standard (ideal self). Therefore, it would be reasonable to suggest that real and ideal self and self-image disparity are indeed related to self-affects, such as pride, shame, and guilt.

D. Self-Image Disparity and Chronological Age

In an attempt to replicate earlier findings supporting that self-image disparity is related to developmental level (Achenbach and Zigler, 1963), Katz and Zigler (1967) investigated the relationship between self-image disparity and chronological age.

Using children in fifth-, eighth- and eleventh-grade, Katz and Zigler (1967) hypothesized that younger children would manifest less disparity between the real and ideal self-image than would older children. This was based on the assumption that older children are presumably operating at

higher developmental levels.

Real self, ideal self, and self-image disparity were assessed using measures based on those developed by Katz and Zigler (1967). One consisted of a 20-item self-referent questionnaire to which the subject responded using one of six alternatives, ranging from "very true of me" to "very untrue of me". For example, one statement reads, "I am popular with the other kids". The child is asked on the real self measure how true this is of him or her. On the ideal measure, the child is asked how true he or she would like it to be of him or her. The other was a 20-item adjective checklist consisting of traits or attributes (e.g., dishonest, successful) to which the subject responded either "yes" or "no".

Findings revealed that self-image disparity was positively related to chronological age. Older children exhibited greater self-image disparity than younger children. Further, in their attempt to delineate the qualitative nature of such disparity, they found that the greater self-image disparity evident in older children was due to a higher ideal self-image and a lower real self-image. From this, it would appear that with increasing age (or presumably developmental level), children have lower opinions of themselves but at the same time are incorporating higher standards of conduct for themselves. This does not necessarily suggest that older children (who

are presumably operating at higher developmental levels) think more poorly of themselves or have lower self-esteem than younger children (who are presumably operating at lower developmental levels). Rather, it may be indicative of a greater ability to incorporate society's values and mores which results in setting high standards for oneself. This would explain the more positive ideal self-image found among older children. The inability to always meet those high standards may result in a lower real self-image, which would explain the greater disparity between the real and ideal self found among older children.

Other studies have investigated how self-image disparity may be related to non-egocentrism and moral judgement.

E. Self-image Disparity and Non-Egocentrism

Leahy and Huard (1978) investigated the relationship between self-image disparity and non-egocentrism in ten-, eleven-, and twelve-year old children. They hypothesized that, similar to cognitive differentiation, non-egocentrism could be used as an index of developmental maturity. Given this premise, it was suggested that if self-image disparity was related to developmental maturity and non-egocentrism could be used as one index of developmental maturity, then self-image disparity should be related to non-egocentrism.

Real and ideal self were assessed using the measures developed by Katz and Zigler (1967; the first one is a

30-item self-referent questionnaire which allows the subject one of six possible response alternatives and the other is a 20-item adjective checklist which allows the subject one of two possible response alternatives).

Egocentrism was assessed using a cartoon sequence task, wherein the subject was presented with one card at a time and was requested to tell the story depicted on the cards. The subject was then asked to imagine that he or she had heard only a part of the story, and was to tell it using this more limited information. Those children showing no evidence of "privileged information" (i.e., that they had, in fact, heard the entire story) were classified as non-egocentric and those showing evidence of privileged information were classified as egocentric.

The results showed that, consistent with their predictions, egocentric children had smaller self-image disparities than did non-egocentric children. Further, they discovered that while egocentric and non-egocentric children had similar scores on real self-image, non-egocentric children had higher ideal self-images than did egocentric children. These findings have been interpreted to support a cognitive-developmental theory of self-image, in which the differentiation of the self into real and ideal components is facilitated by the ability to think in non-egocentric terms. Moreover, the different types of S-I disparity (a simialr real self-image but a high ideal self-image, or a

low real self-image and a high ideal self-image) are likely to be related to the developmental level of the child. No study to date has compared the various patterns of S-I disparity.

F. Self-Image Disparity and Moral Judgement

In a later study, Leahy (1981) hypothesized a relationship between self-image disparity and moral judgement based on two findings. The first was the relationship between self-image disparity and non-egocentrism, and the second was Kohlberg's claim that non-egocentrism facilitated the development of moral judgement. According to Freud (1920) and Kohlberg (1969), the ego-ideal, or ideal self-image, is a result of the internalization of the values of others. Kohlberg claimed that the internalization of others' values is facilitated in large part by role-taking, possible only when a child is able to think in a non-egocentric fashion. Therefore, Leahy reasoned that if non-egocentrism and self-image disparity were related and non-egocentrism did indeed facilitate moral development, then self-image disparity and moral development should also be related.

Leahy (1981) investigated the relationship between self-image disparity and moral judgement in tenth grade males and females. He predicted that higher stages of moral judgement would be related to a higher ideal self-image than lower stages of moral judgement. Leahy further hypothesized

that subjects at post-conventional stages of moral development would display higher levels of disparity compared to subjects at lower levels of moral judgement. Both of these predictions are consistent with the findings of Katz, Achenbach, Zigler, Leahy and Huard because higher stages of moral judgement may be used to index both developmental maturity and increasing ability to think in a non-egocentric manner.

Real and ideal self and self-image disparity were assessed using the measure adapted by Katz and Zigler (1967). In assessing real and ideal self-image, Leahy (1981) only used the measure consisting of statements to which the subjects responded using one of six alternatives ranging from "This is very true of me" to "This is very untrue of me". Level of moral judgement was assessed using Rest's Defining Issues Test (1974), in which the subjects are presented with six moral dilemmas and twelve statements accompanying each dilemma that define the most important issues for each of these dilemmas. The subjects rank the statements in terms of their perceived significance in arriving at a solution to the dilemma. The statements are stage-keyed and the rankings generate stage scores, which represent the relative importance the subjects attribute to each stage. For example, one of the dilemmas includes a man, Heinz, whose wife is dying and the only thing that may be able to save her is a very expensive drug which Heinz

cannot afford to buy. The dilemma is whether or not Heinz should steal the drug to save his wife's life. One of the available responses states that "he should not steal the drug because it is against the law." This particular response would reflect a "law and order" orientation and the subject choosing the above response would be coded as having a "law and order" orientation.

In line with his predictions, Leahy found a positive relationship between self-image disparity and moral judgement. A high ideal self-image and a low real self-image were associated with the higher stages of moral judgement. The findings, therefore, are in accord with those indicating that greater self-image disparity is related to developmental maturity. The findings are also consistent with those indicating that greater self-image disparity is associated with decreasing egocentrism. The studies discussed above have shown that group differences in self-image disparity are due to either: 1) a higher ideal self-image and a similar real self-image among those scoring higher on disparity than those scoring lower or 2) a higher ideal self-image and a lower real self-image among those scoring higher on disparity than among those scoring lower.

G. Summary of Literature on Self-Image Disparity

Review of the above literature has provided theoretical and empirical evidence to suggest that differentiation of the self into real and ideal aspects, and the disparity

between them, is a cognitive-developmental process related to cognitive differentiation, guilt, chronological age, non-egocentrism and moral judgement. The next sections will provide evidence showing that empathy and prosocial behavior are also related to these variables.

3. Issues in the Study of Empathy

A. Overview

As with the study of self, it is important to consider definitional issues relating to empathy. The first issue to be considered is empathy as a uni-dimensional versus a multi-dimensional construct. The second issue discussed is the distinction between trait empathy and state empathy.

B. Empathy: Uni-Dimensional or Multi-dimensional?

Empathy has been treated as both a uni-dimensional (Dymond, 1949; Kerr and Speroff, 1954) and a multi-dimensional construct (Deutsch and Madle, 1975; Hoffman, 1977; Feshbach, 1976). However, as Davis (1983) has pointed out, the past decade has witnessed growing support for a view of empathy as a multi-dimensional construct. Davis (1983, p. 113) states that empathy is "the reactions of one individual to the observed experiences of another." He discusses one of the earliest distinctions between two forms of empathy set forth by Smith (1759) and Spencer (1870). The first of these two forms is a rational, intellectual reaction to the observed experiences of another. Davis

claims that this is simply the ability to understand the other person's perspective. This type of empathy has also been referred to as cognitive empathy. The other form involves an emotional reaction to the observed experiences of another. This type of empathy, referred to by many as affective empathy, involves experiencing the feelings of the other person being observed. Earlier studies have chosen to stress either one or the other aspect in their investigations, depending on their theoretical position regarding the nature of empathic responding. Recently, however, there has been a movement toward an integration of these two previously separate theoretical approaches. Davis (1983) notes, "It is a growing belief among those interested in empathy that in order to improve the current knowledge on this subject, it is necessary to recognize that there are both cognitive and affective components to the empathic response" (p. 113). Adopting this integrated theoretical approach, Davis (1980) developed the Interpersonal Reactivity Index, a measure of empathy. The measure consists of 28 items, with four 7-item subscales, each tapping some aspect of the global concept of empathy. The four subscales are: 1) Perspective-taking; 2) Fantasy; 3) Empathic Concern and; 4) Personal Distress.

The Perspective-taking scale assesses the tendency to spontaneously adopt the psychological perspective of others. The Fantasy Scale taps subjects' tendencies to imagine

themselves as fictitious characters in movies, books, or plays. The Empathic Concern scale assesses other-oriented feelings of sympathy and concern for unfortunate others. The Personal Distress Scale measures self-oriented feelings of uncertainty and anxiety in stressful interpersonal situations. Davis' rationale underlying this measure is that empathy is best viewed as a set of constructs, all related to each other in that they all concern responsivity to others, but each differing in the type of responsivity to others that is experienced.

C. Trait Versus State Empathy

Another important distinction that must be made when considering empathy is that between trait empathy and state empathy (Eisenberg and Miller, 1987). Trait empathy refers to an individual's stable tendency to respond (or not to respond) empathically across situations and in different contexts over time. State empathy refers to an individual's feelings of empathy at one particular point in time, usually in response to some empathy-provoking stimulus.

4. Empathy

A. Overview

Now that definitional issues relating to empathy have been considered, evidence will be presented to show that variables earlier found to be related to self-image disparity are also related to empathy and prosocial

behavior.

B. Empathy and Cognitive Differentiation

While no studies have directly examined the relationship between empathy and cognitive differentiation, it is reasonable to suggest that such a relationship may exist. As noted earlier, cognitive differentiation is the ability to make use of several categories and to make fine distinctions within those categories when dealing with objects and concepts in the world. This may also include the ability to make fine distinctions with regard to the emotional states of others. Therefore, children who are better at identifying and distinguishing between the emotional states of others (e.g., sad versus angry versus fearful), even when the cues may be subtle, may be more compelled to feel empathy under the appropriate circumstances (e.g., when they are able to identify that the person is sad or depressed) than are children who are not as competent in identifying and distinguishing between the emotional states of others. Therefore, making fine distinctions between the emotional states of others probably involves some level of cognitive differentiation, and the ability to identify the emotional state of another and to recognize that emotional state as one which is not desirable (e.g., sadness, depression, etc.) is what often compels one to experience empathy.

C. Empathy and Guilt

Empirical evidence for a relationship between empathy and guilt is provided in the work of Thompson and Hoffman (1980). First-, third-, and fifth-grade children were shown stories on slides which were also narrated by the experimenter. In each of the slides, the story's main character does harm to another person. For example, a boy who accidentally bumps into another boy, scattering his newspapers, does not stop to help because he is in a hurry. Guilt was measured using two indices. The first index involved asking the children how they would feel if they were the character in the story who had committed the transgression. The second involved asking the child to complete the story, and guilt scores were derived from the amount of guilt attributed to the culprit. Before administering these measures, half of the children were asked to think about and tell how the victim in the story felt. This index provided a measure of state empathy. It was hypothesized that those in the empathy arousing condition (i.e., those asked to think about how the victim felt) would score higher on the guilt measures.

The findings revealed a significant positive relationship between guilt and empathy. Those in the empathy-arousing condition exhibited more guilt than the control group who were not asked to think about the victim.

D. Empathy and Chronological Age

As Lennon and Eisenberg note (1987), studies investigating the relationship between empathy and chronological age reach different conclusions, depending on the index of empathy used. In general, findings using self-report of empathy on questionnaire measures have shown empathy to be positively related to age in the preschool and elementary years; findings for older children and adolescents are inconsistent (Epstein, 1973; Bryant, 1982; Cohen, 1974; Powell, 1951; Fay, 1971).

Teacher ratings of child empathy are not always related to the child's age, and findings concerning physiological indices of empathy are also mixed (Howard and Barnett, 1981). Finally, studies using facial/gestural indices show empathy to be either inversely related or unrelated to age in the early school years (Soloman, 1985 and Strayer, 1985). Therefore, most of the studies using self-report questionnaire measures of empathy among children have found that empathy is positively related to age in the early years up to middle elementary school. After this point, however, research findings are varied and inconsistent.

E. Empathy and Non-Egocentrism

The work of Hoffman (1976) provides support for a relationship between non-egocentrism and the cognitive properties of empathy. He suggests that the actor not only experiences the feelings of the other person but he or she

also experiences the perceptions, thoughts, and wishes of the other person. According to Hoffman, this ability to experience cognitive empathy arises out of self-other differentiation. This self-other differentiation is possible only after one is able to think in a non-egocentric manner.

The work of Feshbach (1982) provides both theoretical and empirical support for a relationship between empathy and non-egocentrism. Feshbach proposes a three component model of empathy. Two of these three components are closely related to the concept of non-egocentrism. The first component is the ability to discriminate affective states of others. It is reasonable to suggest that being able to think in a non-egocentric fashion facilitates the ability to identify the affective states of others. The second component, the ability to assume the perspective and role of another person, reflects a more advanced level of cognitive competence. This component is also necessarily related to non-egocentrism. In order to understand the perspectives of others, one must overcome his/her own egocentricity in thinking. In essence, Feshbach is asserting that non-egocentrism is a necessary, but not sufficient, component of empathy. The third component involves an emotional response to the empathy-provoking stimulus.

Empirical support for this proposed relationship was obtained. Five- to eleven-year old children were assessed

on egocentrism and empathy. Affective matching (a measure tapping egocentrism) was assessed by presenting 10 pictures to the subjects. Each set contained drawings illustrating affect-laden events in childhood connected to each of five emotions: happiness, pride, anger, sadness, and fear. The drawings involved a main child character interacting with other children or adults. For example, the "happiness" situation depicted a child receiving presents on his birthday. On each picture the affective facial cues of the main character were deleted. The subject was asked to select the appropriate facial stimulus from five different emotional expressions to match each pictorial situation. Identification of the face displaying the emotional expression that exactly matched the expected emotion received a score of 1 and all other responses were scored 0. The final outcome measure of affective comprehension (or level of egocentrism) was the sum score across all 10 drawings. Empathy was assessed by presenting subjects with 20 videotapes of stories of children experiencing one of five emotions: pride, happiness, anger, fear, or sadness. Initial narration of the story identified the main character, and the opening shot of each story visually targeted the main character. The final shots of the story ended with close-ups of the main character to capture more effectively his or her affective response to the situation. Following the story, the child was asked how he or she felt

and how much he or she felt that way. The child's responses were recorded verbatim. The empathy score was based on the degree to which the subject's emotional response to each of the tapes corresponded with the affect experienced by the stimulus child.

Findings revealed a significant relationship between affective matching (non-egocentrism) and empathy for both males and females.

F. Empathy and Moral Judgement

The work of Eisenberg-Berg and Mussen (1978) provides evidence for a relationship between empathy and moral judgement. Eisenberg-Berg and Mussen address the issue of affective empathy and its relationship to moral development (in terms of both prosocial behavior and level of moral judgement) in adolescents. As noted earlier, affective empathy involves an emotional reaction to the observed experiences of another; it includes actually experiencing the feelings of the other person being observed.

Affective empathy and moral judgement were assessed in ninth-, eleventh- and twelfth-graders, with a questionnaire developed by Mehrabian and Epstein (1972). This measure consists of 33 items representing seven subscales; susceptibility to emotional contagion, appreciation of the feelings of unfamiliar or distant others, extreme emotional responsiveness, tendency to be moved by others' positive emotional responses, tendency to be moved by others'

negative emotional responses, sympathetic tendency, and willingness to be in contact with others who have problems. Subjects were asked to respond by choosing one of eight possible response ranging from very strong agreement to very strong disagreement.

Moral judgement was assessed using two measures. One of the measures of moral development was behavioral, volunteering to assist the experimenter in another project. The other assessed the level of moral judgement through subjects' responses to dilemmas in which the needs, wants or desires of one individual conflict with those of another person in a context in which authorities, laws, and punishment are irrelevant or unimportant. For example, in one dilemma, individuals must choose between sharing or not sharing food with another town after a flood when sharing would result in the benefactors being very hungry themselves.

While empathy and helping behavior were related only for males, empathy and level of moral judgement were significantly related for both males and females. Therefore, Eisenberg-Berg's study provides evidence for a relationship between empathy and level of moral judgement for both males and females.

Another study conducted by Curtis, Billingslea, and Wilson (1988) reveals a similar relationship between empathy and moral judgement. The empathy scales of the California

Psychological Inventory were used to assess empathy in undergraduate psychology students. These scales consist of 31 true-false items designed to measure the extent to which an individual is able to participate vicariously in another's experience or viewpoint. Level of moral judgement was assessed using Rest's Defining Issues Test discussed earlier.

Results showed that empathy was significantly and positively related (r=.68) to level of moral judgement; those scoring high on the empathy measure had scores reflecting higher levels of moral judgement.

A study by Eisenberg, Shell, Pasternack, Lennon, Beller, and Mathy (1987) provides another source of evidence for a relationship between empathy and moral judgement in nine, ten-, eleven- and twelve-year old children. The Bryant index of Empathy (1982) was used to assess empathy. This is a 22-item questionnaire consisting of statements such as "People who kiss and hug in public are silly". The response format ranged from +4, "very strong agreement" to -4, "very strong disagreement".

Level of moral judgement was assessed by presenting the child with a prosocial dilemma in which the needs of oneself conflicted with those of another. The children were then asked to provide reasons for helping or not helping the needy person depicted in the dilemma. Their reasons were coded into levels believed to represent components of

developmental prosocial moral judgement. The levels were: Level 1, hedonistic, self-focused orientation; Level 2, "needs of others" orientation; Level 3, approval and interpersonal orientation and stereotyped orientation; Level 4a, self-reflective, empathic orientation; Level 4b, transitional level; and Level 5, strongly internalized orientation.

Supporting a relationship between empathy and moral judgement, Eisenberg et al. (1987) found that empathy was negatively related to hedonistic reasoning, the lowest level of moral judgement. In addition, empathy was positively related to the higher levels of moral judgement, such as self-reflective, empathic orientation.

Finally, the work of Fay (1971) provides evidence for a relationship between empathy and moral judgement. Empathy was assessed in six- and eight-year olds by recording subjects' reactions to 35mm. slide sequences presenting other children in situations of fear, anger, happiness, and sadness. Moral judgement was assessed by presenting the child with stories depicting situations of moral dilemmas and asking them to make evaluations on the consequences and the motives of the actions. Similar to the other studies, Fay (1970) found empathy and moral judgement were significantly related to each other. The studies of Eisenberg-Berg (1979), Curtis et al. (1988), Eisenberg et al. (1987) and Fay (1971), therefore, provide evidence for a

relationship between empathy and moral judgement.

G. Summary of Literature on Empathy

The above research supports a relationship between empathy and the variables that were earlier shown to be related to self-image disparity: cognitive differentiation, guilt, chronological age, non-egocentrism, and moral judgement. It is suggested that empathy is, therefore, also related to self-image disparity.

5. Prosocial Behavior

A. Overview

This section, like the sections discussed above concerning self-image disparity and empathy, will attempt to provide similar evidence for a relationship between the same variables and prosocial behavior.

B. Prosocial Behavior and Cognitive Differentiation

No study to date provides direct evidence for a relationship between cognitive differentiation and prosocial behavior. However, the work of Strayer and Schroeder (1989) does provide evidence for a similar process and its relationship to prosocial behavior, which is the ability to generate solutions to problem solving. While this is not identical to cognitive differentiation, it is a similar phenomenon in that both have common underlying characteristics. Both are thought to increase with development and both require the simultaneous consideration

of several categories and concepts in generating a response. Therefore, Strayer's and Schroeder's study investigating the relationship between prosocial behavior and generation of helping strategies will be considered.

Five-, eight, and twelve-year olds were presented with a series of six videotaped vignettes in which the main character of the story was in need of some kind of help. After viewing the tapes, children were asked whether they felt like helping the main character and if they did, how they might help them. Strayer and Schroeder found that while the offers to help did not differ across age groups, older children were able to generate more strategies for helping and the nature of these strategies were qualitatively different from those given by younger children. For instance, both "material" and "aggressive" strategies were offered more often by younger children than they were by older children. Alternatively, older children offered verbal strategies, which require more attention to persons than to the events themselves. Strayer and Schroeder (1989) claim this is due to the fact that older children are better at perspective taking than younger children.

This supports the contention that the ability to generate a larger number of solutions where one is in need of help is positively related to prosocial behavior. It is suggested that a similar relationship may exist between

cognitive differentiation and prosocial behavior since the ability to generate several alternative solutions to problems may be similar to the ability to engage in cognitive differentiation.

C. Prosocial Behavior and Guilt

Murphy (1937) investigated the relationship between prosocial behavior and guilt. Numerous observations of preschool children were conducted and several instances of one child harming another were recorded. In most cases, the observations occurred in the context of a fight, and the victim was typically helped by a bystander rather than by the aggressor. However, in a few instances of accidental harm, the responsible child did make a spontaneous attempt at reparation. It appears that those who had accidentally harmed the child experienced guilt at what they had done and felt the need to somehow make up for their act. This often resulted in spontaneous sharing with or helping of the child who had been hurt.

Hoffman (1975) also provides empirical support for this relationship in a study of fifth- and seventh-grade children and their parents. A story completion item was used in which a well-meaning protagonist the same age and sex of the subject is hurrying to a movie with a friend and encounters a small boy who appears to be lost. The main character suggests that they stop and help the boy, but his friend talks him out of it. The next day he finds that the child

had been left alone by his babysitter, ran into the street, and was killed by a car. The subject is then asked to complete the story. The measure was designed to evoke guilt, but there were reasons for expecting many subjects to show little or no guilt: the act was one of omission--not stopping to help the boy; the protagonist actually did nothing wrong and there was no reason for him to expect the tragic circumstances. In addition, there were several other people that were to blame: the babysitter, the parents who hired her, and the driver of the car.

Nevertheless, in their story completions, most subjects gave responses indicating that they would feel intensely guilty in such a situation. Furthermore, the information which they provided to complete the scenario often involved the protagonist engaging in prosocial action, such as doing something for the child's family or making an effort to help others in similar situations in the future. Therefore, Hoffman (1975) suggests that guilt over inaction may serve as a motive for repeated prosocial action.

D. Prosocial Behavior and Chronological Age

Wright (1942) investigated the relationship between prosocial behavior and age. Prosocial behavior was measured using the number of times a child shared a toy. He found that sharing did increase with age. For example, eight year-olds were more generous than five year-olds when asked to let a friend play with the more attractive of two toys.

Further evidence for such a relationship is provided by the work of Rushton and Wiener (1975). Children aged six to thirteen played a bowling game where they could earn tokens. The tokens could be exchanged for prizes at the end of the game and the more tokens earned, the better the prize. Before playing the game, the children were shown a picture of an unhappy-looking child depicted on a "Save the Children Fund" charity poster. Below the poster was a charity box. The children were told that if they wanted to, they could share some of their winnings with the child by putting some of their tokens in the donation box. The children then were left entirely alone in the room to play the game and give to the child if they chose to do so. Unknown to each child, the bowling game was programmed in such a manner that each child won exactly the same number of tokens. Findings revealed that the thirteen year-olds gave away a greater percentage of their winnings than did the seven year-olds.

A second measure of generosity was also collected. After the children had played the bowling game and given to the needy child, they were given twenty-four candies as a prize. They were also given two paper bags, one with their name on it and one with their friend's name on it. They were told that if they wished to give any of their candies to their friend they could do so in the bag provided. The experimenter then left the child alone to divide their candies. As the children left the room, the experimenter

suggested that they leave the two bags on a shelf until the end of the day. This allowed the experimenter to count the candies. Findings showed that the thirteen year-olds shared 42% of their candies and the seven year-olds shared only 21% of their candy.

E. Prosocial Behavior and Non-Egocentrism

By providing evidence for a relationship between egocentrism and antisocial behavior, Chandler (1973) provides indirect support for a relationship between non-egocentrism and prosocial behavior. Egocentrism was assessed by presenting eleven- and thirteen-year old subjects with cartoon sequences and asking them to describe the sequence first from their own point of view and then from the point of view of an experimenter who had been exposed to only part of the cartoon sequence. Level of egocentrism was scored on a 1- to 5-point scale, depending on the amount of "privileged" information the subject shared when asked to tell the story from the other's point of view. After obtaining an initial measure of egocentrism, each subject was assigned to one of two conditions. The first was an experimental control group in which subjects had no further contact with research staff until the post-intervention assessment. The second condition involved subjects who were invited to participate in a film workshop. This condition consisted of a drama-type class which included the making of films as a means of helping subjects

to see themselves from another's point of view. Chandler (1973) reasoned that these training sessions would help the subjects to step outside of their egocentric perspective and assume perspectives different from their own. During these sessions, subjects were asked to develop, portray, and record brief skits dealing with events involving peers. The sessions were held once a week for four hours during a 10 week period.

Following completion of the program, both groups were re-evaluated on the cartoon sequence task. Findings revealed that those in the experimental training program were significantly less egocentric than subjects in the control group. In addition, Chandler compared antisocial behavior both prior to and following the intervention. This was assessed using police and court records, and number of known delinquencies were recorded and tallied. Findings revealed that those who were enrolled in the training program engaged in significantly less antisocial behavior than the control group. Because Chandler provides evidence relating to egocentrism and antisocial behavior, it is reasonable to suggest that non-egocentrism would be related to prosocial behavior.

Barnett and Thompson (1985) provide direct evidence for a relationship between prosocial behavior and non-egocentrism. Fourth- and fifth-grade children were categorized into low- and high-empathy and affective

perspective taking (an index of non-egocentrism) groups. Empathy was assessed using the Bryant (1982) empathy scale discussed earlier. Egocentrism was assessed by presenting subjects with six tape-recorded dialogues portraying characters changing from an initial positive affect (happy) to a negative affect (sad or fearful). After listening to the tapes, the subjects were asked to describe how the main character felt and why he or she felt that way. Children were given 2 points if both questions were answered correctly, 0 points if no feelings were mentioned, and -1 if the feeling was incorrectly identified. Prosocial behavior was assessed using teachers' ratings of the students' tendencies to help other children on an 8-item scale. For example, one item read, "A child has just dropped an armful of books". The teacher then rated each item on a 5-point scale from 1, "not likely at all" to 5, "extremely likely". The range of possible scores was from 4 to 20.

Findings revealed that those with high scores on non-egocentrism received higher ratings of helpfulness by their teachers than those with low scores on non-egocentrism. Therefore, the work of Barnett and Thompson (1985) and Chandler (1973) provide indirect and direct evidence for a relationship between prosocial behavior and non-egocentrism.

F. Prosocial Behavior and Moral Judgement

Eisenberg, Cameron, Pasternack, and Tryon (1988) investigated the relationship between prosocial behavior and

level of moral judgement in four-year olds. Prosocial behavior was assessed using peer and teacher reports as well as naturalistic observation. Moral judgement was assessed using children's own explanations of their naturally occurring prosocial behavior and through asking the children to respond to six moral dilemmas. Each dilemma depicted a story in which the needs of the main character were in conflict with those of another.

Subjects were asked to nominate three peers who help other children when they cannot do something and who share toys with other children. Teachers were asked to rate each child in their class on a 6-point scale, ranging from "much less than average" (1) to "much more than average" (6), in terms of how likely the child was to 1) help peers when they needed assistance, 2) share materials or food with peers, 3) play cooperatively with peers, 4) comfort a peer in distress and, 5) help or share with an adult. Naturally occurring prosocial behavior was assessed during numerous observation sessions in which sharing, helping, and sociability were coded. Sharing and helping were coded in one of two ways. If the sharing or helping had occurred without a request by a peer or adult, it was coded as "spontaneous". If the sharing or helping had indeed been a result of a request, it was coded as "requested".

Eisenberg et al. (1988) found that both peers' ratings of prosocial behavior, as well as teachers' ratings of

childrens' prosocial dispositions were related to children's naturally occurring prosocial and social behavior. Especially important to the present study was the finding that both teacher and peer ratings of prosocial behavior were related to both measures of moral judgement; children's self-attributions and children's prosocial reasoning to the moral dilemmas. This suggests that prosocial behavior is indeed related to level of moral judgement.

G. Summary of Literature on Prosocial Behavior

The above research supports a relationship between prosocial behavior and the variables that were earlier shown to be related to self-image disparity and to empathy: cognitive differentiation, guilt, chronological age, non-egocentrism, and moral judgement. Therefore, it is suggested that prosocial behavior, like empathy, is also related to self-image disparity.

PURPOSE OF THE STUDY

Self-image disparity served as the subject of the present study for two primary reasons. To begin with, it is interesting to consider that, as noted earlier, self-image disparity was originally thought to be a sign of maladjustment, an aberration of human self-perception. As earlier suggested, an individual with a relatively large discrepancy between his or her real and ideal self was thought to be in need of therapy aimed at reducing such a discrepancy. Contemporary developmental psychologists, however, came to view self-image disparity as a natural concomitant of normal growth and development. This latter view was based on studies revealing that self-image disparity was positively related to a number of developmental variables, such as cognitive differentiation, chronological age, non-egocentrism, and moral judgement. It is intriguing to consider that something originally thought to be indicative of maladjustment could, upon closer inspection, actually be a part of normal growth and development.

In addition to this intriguing aspect of self-image disparity, it should also be noted that little research, particularly with very young children, has been conducted in this area. While it is now fairly widely accepted as a

developmental phenomenon, no one has investigated self-image disparity in children younger than eight years of age. This appears to be an important oversight. For if self-image disparity is to be regarded as a developmental phenomenon, where better to test that premise than among young children who are experiencing significant developmental changes. For these reasons, therefore, it is reasonable to suggest that self-image disparity is both a worthwhile and interesting topic for study.

Finally, while the literature presented above has provided evidence to suggest that self-image disparity, empathy, and prosocial behavior are related to many of the same variables, no studies have been carried out which examine the relationships that may exist between self-image disparity and these two constructs.

STATEMENT OF HYPOTHESES

The specific hypotheses of the present study are:

1) Self-image disparity will be positively related to empathy.

2) Self-image disparity will be positively related to prosocial behavior.

3) Older children will display greater self-image disparity than younger children.

4) Older children will have higher empathy scores than younger children.

5) Older children will exhibit more prosocial behavior than younger children.

6) The pattern of self-image disparity in older children is expected to reveal either one or both of the following types of disparity. This prediction is based on other studies which ahve revealed a specific pattern of disparity (Katz and Zigler, 1967 and Leahy and Huard, 1976):

a) higher ideal self-image and lower real self-image as compared to younger children;

b) higher ideal self-image in older children as compared to younger children but comparable scores on real self-image in younger and older children.

7) Sex differences in self-image, empathy, and prosocial behavior will also be examined. Previous studies have generated mixed findings (Maccoby and Jacklin, 1974; Stoodt and Balla, 1974; Phillips and Zigler, 1980; Lennon and Eisenberg 1987; Yarrow and Waxler, 1976; Rice and Grusec, 1975). However, because females often display more empathy and prosocial behavior than males on self-report measures (Miller and Eisenberg, 1987), it is expected that girls will score higher on the empathy measures and exhibit more prosocial behavior than boys.

METHOD

Subjects

A total of one-hundred and twelve male and female children in three age groups participated in the present study. Thirty-six were in the five- to six-year old age range. Of those, fourteen were males and twenty-two were females. Forty-eight fell into the seven- to eight-year old age range. Of those, eighteen were males and thirty were females. Twenty-eight fell into the nine- to ten-year old age range. Of those, six were males and twenty-two were females.

The subjects were recruited through the East Lansing and Lansing School Districts, with the permission of the school directors from each district. Letters describing the project were sent home with the children (see Appendix A). Parents and children indicated whether or not they wanted to participate, and they returned the forms to the school. The response forms were collected approximately twice a month.

Parents who initially indicated an interest in the project were contacted to arrange a convenient time to visit the play-room. During this contact, it was confirmed that the parent and child would ask a friend of the child's same sex and age (within one year) to also participate in the project. A consent form was mailed to the friend's parent

and returned by the other parent during the scheduled play session (see Appendix B).

Design and Procedure

The child whose parent first indicated interest in the project was designated as the "persuader" and the friend whom the child brought with him/her to the session was designated as the "listener".

A laboratory playroom consisting of several age-appropriate toys (Legos, Play-Dough, puzzles, etc.) and a class-room that is used for college courses during the day were the rooms used for the experiment.

Upon entering the playroom, all people participating in the experiment were introduced. Consent forms were collected (see Appendix B) and verbal consent to participate was obtained from both children. A 5-minute warm-up session allowed children to investigate the room and the toys and to become comfortable with the setting. The subjects and parent were then briefly informed of what would be taking place during their visit. Following the 5 minute warm-up session, both children were interviewed separately on the self-image and empathy measures. The parent was taken to another room to fill out the empathy measure on his or her child.

Following the administration of both the self-image and empathy measures, and before the two children were reunited,

the "persuader" was exposed to an "empathy induction procedure". During this procedure, the child was shown a series of pictures of children in the hospital. As the pictures were spread out on the table, the experimenter said, "Here's another activity I want to tell you about. There are some children who are sick in the hospital. These kids are a lot like you; they are the same age and all, but since they are in the hospital, they don't get a chance to try out different toys and games like you're doing today. How do you think these sick kids feel, being in the hospital?" At this point, the experimenter went over each picture with the child, allowing the child to comment on each one. The experimenter then added, "These kids are away from their family and friends, so they feel kind of lonely and sad." At this point, the experimenter then asked, using a five-point rating scale with faces ranging fron very happy to very sad, " How do you feel after looking at these pictures of the sick kids? Point to the face that best describes how you feel after looking at these pictures and thinking about the sick kids." The child's response on this scale was used as the measure of state empathy. After the child finished pointing to the appropriate face, the experimenter continued with, "Well, one of the ways we can help these kids feel better, cheer them up, is by making cards for them, like get well cards. What I'd like you to do is think of what you could do or say so that _____ (the

child's friend) would make cards for the sick kids. Remember, the more cards you make, the more sick kids you can help. You just color the cards and fold them, and make sure that when _____ makes a card that he/she puts his/her name on each one so that the sick kids will know who they're fro, and if you decide to make any cards, amke sure you put your name on your cards. Then just put them in this box with all of the other cards. So, remember, when _____ comes back, try to get him/her to help the sick kids by making cards for them, and the more cards that are made, the more sick kids you can cheer up. Of course, you can play with the toys too." At this point, the experimenter pointed to a clock in the playroom and said, " When _____ comes back, I'll leave and be back in fifteen minutes, that's when this hand gets to the red mark." Following this, the listener returned and the experiementer told the children to have fun and that she would return in fifteen minutes. This fifteen minute play session was videotaped.

Following the 15-minute play period, there was a debriefing session, during which time the experimenters explained the purpose and aims of the study as well as addressed any questions or concerns the parents or children had regarding the study. A summary of results were offered to all interested parents following completion of analyses and write-up.

Measures

Real and Ideal Self-Image Interviews

Both children, the "persuader" and the "listener", were interviewed on self-image. Harter's (1984) Pictorial Scale of Perceived Competence and Social Acceptance for Young Children was used to assess real and ideal self-image (see Appendix D). While no other studies have used this as an index of self-image disparity, it is argued that such a measure is appropriate for the present study for several reasons. First, a measure developed by Carol Efron (1977) described earlier is similar in format to Harter's measure (1984) and was used to assess real and ideal self-image in young children. Second, Efron has suggested that, because her measure was no longer available, Harter's measure was an appropriate substitute (C. Efron, personal communication, October, 1989) for assessing self-image disparity. Third, the measure of self-image disparity adapted by Katz and Zigler (1967) has never been used with children younger than nine. Because the youngest children in the present study were five, the measure developed by Katz and Zigler was not appropriate. Harter's measure used a picture format which was better able to engage the young child's interest, was understandable, and led to more meaningful responses than an instrument without pictures. Fourth, the measure developed by Katz and Zigler was based on Coopersmith's Self-Esteem Inventory (1967), a uni-dimensional measure of

self-image. Harter (1984) and others (Marsh, 1987) have shown that assessment of children's self-judgements may best be measured by considering such judgements separately within specific domains. Fifth, assessments of reliability and validity on the Harter measure have been consistently high. Therefore, use of the Harter measure appeared to be appropriate for the present study.

The measure consisted of four separate subscales--cognitive competence, physical competence, peer acceptance, and maternal acceptance, with each subscale containing six statements. For example, the cognitive subscales included scholastic skills, such as reading, writing, and arithmetic. Accompanying each statement were two pictures reflecting opposite conditions as indicated in each statement. There were two versions, one for males and the other for females which had exactly the same statements and pictures, except that the sex of the child was male in one version and female in the other version.

To assess the real self-image, each child was told, "I have something here that is kind of like a picture game and it's called WHICH GIRL (or boy) IS THE MOST LIKE ME. I'm going to tell you about each of the girls (boys) in the picture." A sample question proceeded like this: "In this one (examiner then pointed to picture on left), this girl is usually kind of happy, and this girl (examiner pointed to picture on right) is usually kind of sad. Now I

want you to tell me which girl is most like (child's name)." Once the child has pointed to the appropriate picture, the examiner pointed to circles located directly below the picture to help the child further define his/her answer. The examiner always began with the extreme answer (the larger circle) and proceeded to the less extreme answer (the smaller circle). Therefore, if the child pointed to the picture of the girl that is usually happy, the examiner said: "Are you always happy? (pointing to the larger circle below the picture of the happy girl) or are you usually happy?" (pointing to the smaller circle below the picture of the happy girl). The wording used for the instructions given to the children were taken directly from the original Harter (1984) measure.

To assess ideal self-image, the Harter scale was used again. The examiner proceeded through the same pictures, process, and scoring, except that the directions involved asking the child to "tell me which girl (boy) you wish you were or you would most like to be".

Each item was scored on a four point scale, with a score of four being the most competent or accepted and a score of one being the least competent or accepted. Thus, the child that would say he/she is always happy received a four, the child that says he/she is usually happy received a three, and so on. Scores were averaged across the six items for each subscale. Therefore, four means were calculated

(one for each subscale) on both real self-image and ideal self-image (see Appendices E and F).

Self-image disparity was assessed in two ways. First, means for each subscale were summed for real and ideal self-image separately. Disparity was assessed by calculating the difference in total score for real self-image and ideal self-image. This produced one overall disparity score combining all of the subscales. Second, the difference between each subscale mean for real self and for ideal self was calculated to provide another measure of disparity. For example, the difference between the mean obtained on cognitive competence for real self and the mean obtained on cognitive competence for ideal self was calculated. This produced four disparity scores, one for each of the subscales.

Trait Empathy Interview and Questionnaire

There were two measures of trait empathy (see Appendix G). The first was a self-report measure completed by the child and consisting of 21 items. This interview was given to both the "persuader" and the "listener". The other was a parental rating of child's empathy, consisting of 28 items, and it was completed by the "persuader's" parent. Both of these measures were based on Davis' Interpersonal Reactivity Index (1983) discussed earlier. The children's measure has been adapted to include vocabulary appropriate for young children. The parent measure has been slightly changed,

with statements beginning with "My child..." in the present measure, rather than "I..." in the Davis measure (1980).

State Empathy

State empathy was assessed only in the "persuader". The measure is a 5-point pictorial rating scale assessing the "persuader's" feelings following the empathy induction procedure. Following this procedure, the child was asked about his/her own experiences with hospitals, how the pictures made him/her feel, and to indicate on the 5-point scale with faces ranging from happy to sad, how these pictures made him/her feel. The face chosen by the child provided a measure of state empathy (see Appendix C).

Measures of Prosocial Behavior

Two measures were used to assess prosocial behavior in both the "persuader" and the "listener". The first measure was the number of cards the child made for sick children during the 15-minute play period. The second measure was the amount of time the child spent (in seconds) on card making behavior (e.g., choosing the card, choosing the crayons, talking about the card, coloring the card, etc.) In addition to providing a means of measuring prosocial behavior, this provided a check for how well the empathy measures actually correspond with prosocial behavior.

Each card was pre-made in the hope that individual differences in artistic ability and interests in artwork would not interfere to a great extent with using this as an

assessment of prosocial behavior. The child's task involved simply coloring the card and signing his/her name on the inside.

RESULTS

Preliminary Analyses

Reliabilities were calculated for the subscales of the self-image measure (Harter's Pictorial Scale of Perceived Competence and Social Acceptance for Young Children, 1984), the children's self-report trait empathy measure, and the parent-report of trait empathy measure. (Both empathy measures were based on the Interpersonal Reactivity Index by Davis, 1983, but were modified for use with children and for parents describing their children). The following reliabilities were obtained for the self-image measure: cognitive competence (alpha=.82); physical competence (alpha=.51); peer acceptance (alpha=.84); and maternal acceptance (alpha=.58). Combining these subscales into the two factors of competence (physical and cognitive) and acceptance (maternal and peer), the following reliabilities were obtained: competence (alpha=.78) and acceptance (alpha=.82).

The reliabilities for the children's self-report measure of trait empathy were as follows: fantasy empathy (alpha=.74); empathic concern (alpha=.70); personal distress (alpha=.76); and perspective taking (alpha=.72) (See Appendix H for individual items making up each subscale).

The reliabilities for each of the four subscales on the

parent report measure of empathy were poor: fantasy empathy (alpha=.42); empathic concern (alpha= -.18); empathic distress (alpha=.29); and perspective taking (alpha=.51). Because the reliabilities were low, no further analyses using this measure were conducted. The results in terms of each hypothesis are considered next.

Analyses to Test Hypotheses

Hypothesis 1

The first hypothesis proposed that self-image disparity would be positively related to both trait and state empathy. In addition to total disparity and total empathy scores, the subscales of both the empathy and the self-image disparity measures were investigated.

A forward stepwise regression analysis was conducted, with self-image disparity and its subscales serving as the independent variables and trait empathy and its subscales serving as the dependent variables. Results revealed that the peer acceptance subscale of self-image disparity accounted for 5% of the variance in total empathy scores ($p<.02$); 6% of the variance in fantasy empathy scores ($p<.02$); 7% of the variance in empathic concern scores ($p<.006$); 6% of the variance in personal distress scores ($p<.02$); and 4% of the variance in perspective taking scores ($p<.04$).

However, Pearson product-moment correlations between

self-image disparity and trait empathy revealed that, contrary to the first hypothesis, these statistically significant relationships were negative (see Table 1). None of the other subscales of self-image disparity or total self-image disparity accounted for any of the variance in total trait empathy or in any of its subscales.

TABLE 1
Pearson Product-Moment Correlations:
Self-Reported Trait Empathy and Self-Image Disparity

Trait Empathy	Self-Image Disparity				
	CC	PA	PC	MA	TOTDISP
EC	-.10	-.29**	.06	-.17	-.23*
FE	-.23*	-.27**	.06	-.15	-.16
PD	-.08	-.26**	-.10	-.09	-.19*
PT	-.17	-.22*	.03	-.15	-.17*
TOTEMP	-.20*	-.25**	.01	-.15	-.20*

Note: Values are based on a one-tailed test.
*p<.05 **p<.01

Key

FE-fantasy empathy
EC-empathic concern
ED-empathic distress
PT-perspective taking
TOTEMP-total empathy

CC-cognitive competence
PA-peer acceptance
PC-physical competence
MA-maternal acceptance
TOTDISP-total disparity

A second regression analysis revealed that the cognitive competence subscale of self-image disparity accounted for 7% of the variance in state empathy scores ($p<.05$). Pearson product-moment correlations revealed that the cognitive competence subscale of self-image disparity

was negatively related to state empathy (r=-.30, p.<.05).

Hypothesis 2

According to the second hypothesis, self-image disparity should be positively related to prosocial behavior. This includes all subscales of the self-image disparity measure and the two measures used to assess prosocial behavior: the number of cards made for children in the hospital and the total amount of time spent making the cards.

Forward stepwise regression analyses were conducted, with self-image disparity and its subscales serving as the independent variables and the number of cards made serving as the dependent variable. Results revealed that the maternal acceptance subscale of self-image disparity accounted for 5% of the variance in number of cards made (p<.04). Correlational analyses revealed that the maternal acceptance subscale of self-image disparity was positively related to the number of cards made (r=.24, p<.05). None of the other subscales revealed significant findings.

In considering the relationship between self-image disparity and the amount of time spent making cards, regression and correlational analyses revealed no significant relationships.

Hypothesis 3

The third hypothesis proposed that older children would display greater self-image disparity than younger children.

A multivariate analysis of variance was carried out, with total self-image disparity and its subscales (cognitive competence, peer acceptance, physical competence, maternal acceptance) serving as the dependent variables and age serving as the independent variable. Significant age effects were revealed for the cognitive competence subscale of self-image disparity [F (2,95)=4.8, p<.02]. Cell means revealed that the youngest group of children, the five- to six-year olds, had the greatest self-image disparity (M=5.3), followed by the nine- to ten-year olds (M=4.0) and then the seven- to eight-year olds (M=3.2). A post-hoc Tukey test (p<.05) revealed that the youngest group, the five- to six-year olds, scored significantly higher than both the seven- to eight-year olds and the nine- to ten-year olds. No significant age effects were found for any other disparity scores.

Hypothesis 4

The premise of the fourth hypothesis was that older children would have higher self-reported trait and state empathy scores than younger children. Analyses of variance and correlational analyses revealed no significant effects in support of this prediction.

Hypothesis 5

According to the fifth hypothesis, it was expected that older children would exhibit more prosocial behavior than younger children. Both the number of cards made and the

amount of total time spent making them were the dependent variables. Analyses of variance and correlational analyses revealed no age effects for prosocial behavior.

Hypothesis 6

The sixth hypothesis proposed that the pattern of self-image disparity in older children would be characterized by either a higher ideal self-image and a lower real self-image than younger children, or that older children would display a higher ideal self-image and a similar real self-image than the younger children.

While analyses of variance revealed significant age effects for the cognitive competence [F (2,95)=3.3, p<.05] and the maternal acceptance subscales [F (2,95)=4.0, p<.03] of ideal self-image, it was not the oldest children who had the highest ideal self-images. A post-hoc Tukey test ($p<.05$) revealed that the seven to eight-year olds scored significantly higher on both the cognitive competence and maternal acceptance subscales of ideal self-image than the five- and six-year olds and the nine- and ten-year olds. The cell means are displayed in Table 2a.

TABLE 2a
Means for Ideal Self-Image Scores

Age of Child	Ideal Self-Image				
	*CC	PA	PC	*MA	TOTAL
5—6	22.2	22.3	22.8	21.4	87.8
7—8	23.6	22.2	23.5	21.7	90.3
9—10	23.3	21.8	22.8	20.0	88.4

*Significant age effects were revealed for these scores
Note: Higher scores represent a more positive ideal self-image.

Analyses of variance on real self-image scores also revealed significant age effects for the subscale of cognitive competence [F (2,95)=6.2, p<.04]. A post-hoc Tukey test ($p<.05$) revealed that the seven- to eight-year olds scored significantly higher on this subscale than the five- and six-year olds and the nine- and ten-year olds. In addition, age effects approached statistical significance for total real self-image. Moreover, as part of the sixth hypothesis, it was proposed that older children would have lower or similar real self-images as compared to the younger children. Cell means for both the cognitive competence subscale of real self-image and for total real self-image indicated that the nine- to ten-year olds scored lower than the seven- to eight-year olds, but higher than the five- to six-year olds (See Table 2b).

TABLE 2b
Means for Real Self-Image Scores

Age of Child	Real Self-Image				
	*CC	PA	PC	MA	*TOTAL
5-6	17.9	18.0	19.9	15.9	71.8
7-8	20.6	18.6	20.9	17.0	77.1
9-10	19.8	19.1	20.9	16.8	76.7

*Significant age effects were revealed for these scores
Note: Higher scores represent a more positive real self-image.

Key

CC-cognitive competence
PA-peer acceptance
PC-physical competence
MA-maternal acceptance

Hypothesis 7

According to the seventh hypothesis, it was expected that females would have higher empathy scores and would exhibit more prosocial behavior than males. Sex differences in self-image were also investigated.

Analyses of variance for total trait empathy and for each of its subscales revealed significant sex effects for the perspective taking subscale of empathy [F (1,96)=6.3, $p<.02$], with cell means revealing that females (M=7.6) scored significantly higher on this subscale than males (M=6.3). The other subscales failed to reach statistical significance.

Analyses of variance revealed no significant sex

differences in state empathy, prosocial behavior, or self-image (real, ideal, or disparity).

Age by sex effects were investigated for both trait and state empathy. First, a multivariate analysis of variance was carried out, with total trait empathy and its subscale serving as the dependent variables and age and sex serving as the independent variables. While none of the sex by age interactions reached statistical significance, interaction effects for total trait empathy [F (2,95)=2.7, p=.07] and perspective taking approached statistical significance [F (2,95)=14.5, p=.064]. Cell means among males for total trait empathy revealed that the nine- to ten-year olds had the highest score (M=6.9), followed by the seven- to eight-year olds (M=5.5), and then the five- to six-year olds (M=4.8). For females, cell means revealed that the five- to six-year olds had the highest (M=6.8) score, followed by the seven- to eight-year olds (M=6.1), and then the nine- to ten-year olds (M=5.8; see Figure 1).

Cell means for males on the perspective taking subscale revealed that the seven- to eight-year olds and the nine- to ten-year olds had comparable scores (M=7.0), and the five- to six-year olds (M=5.0) had lower scores. Cell means for females revealed that the five- to six-year olds had the highest scores (M=7.9), followed by the seven- to eight-year olds (M=7.5), and then the nine- to ten-year olds (M=7.2; see Figure 2).

A multivariate analysis of variance for state empathy was also conducted, with state empathy serving as the dependent variable and age and sex serving as the independent variables. Sex by age interactions for state empathy approached statistical significance [F (2,25)=2.9, p=.07]. Cell means for males revealed that the seven- to eight-year olds scored highest (M=3.7), followed by the nine- to ten-year olds (M=3.0) and then the five to six-year olds (M=1.3). Cell means for females revealed that the five- to six-year olds scored highest (M=3.1), followed by the seven- to eight-year olds (M=3.0) and then the nine- to ten-year olds (M=2.5; see Figure 3).

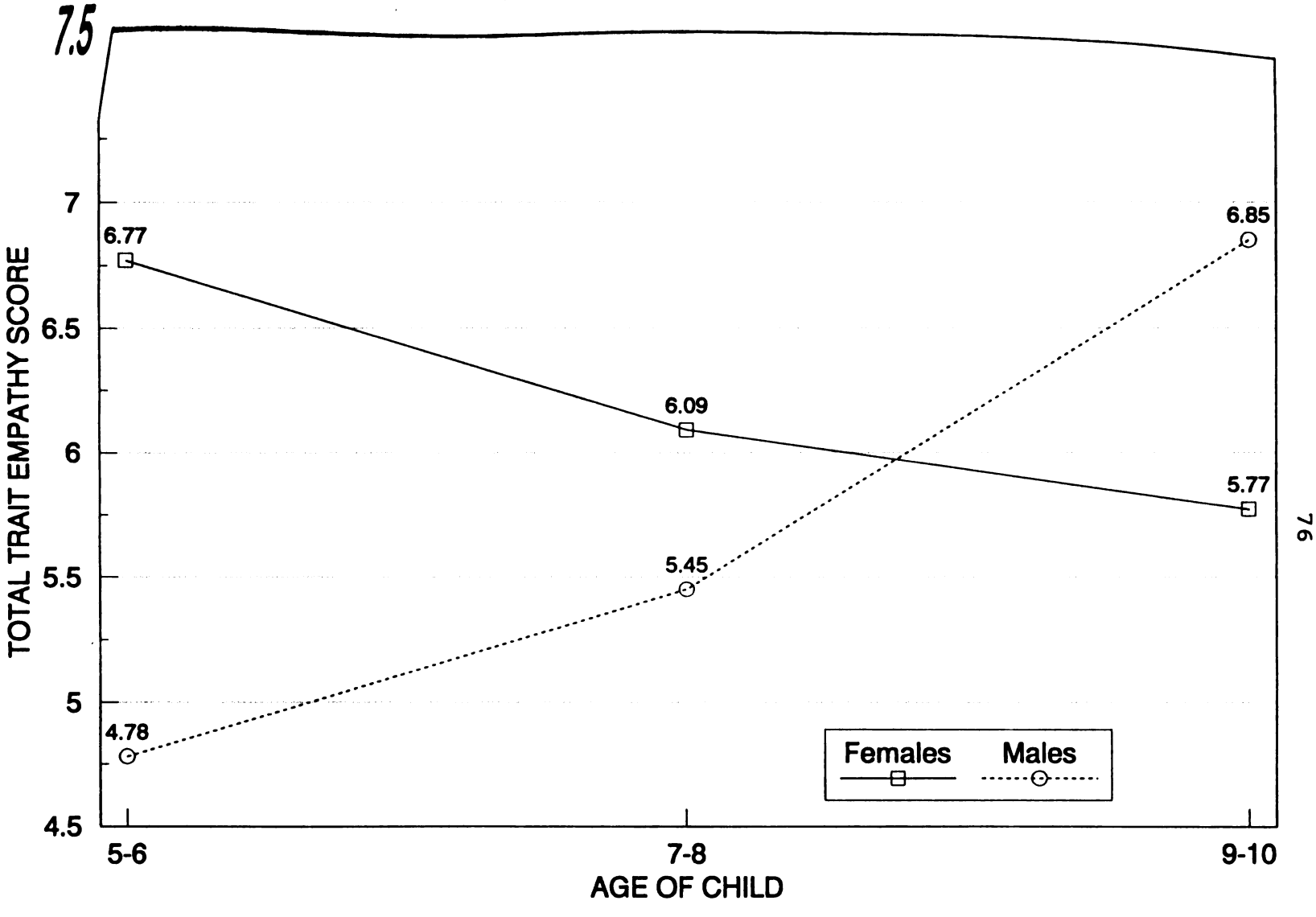


FIGURE 1 Total Trait Empathy by Age and Sex

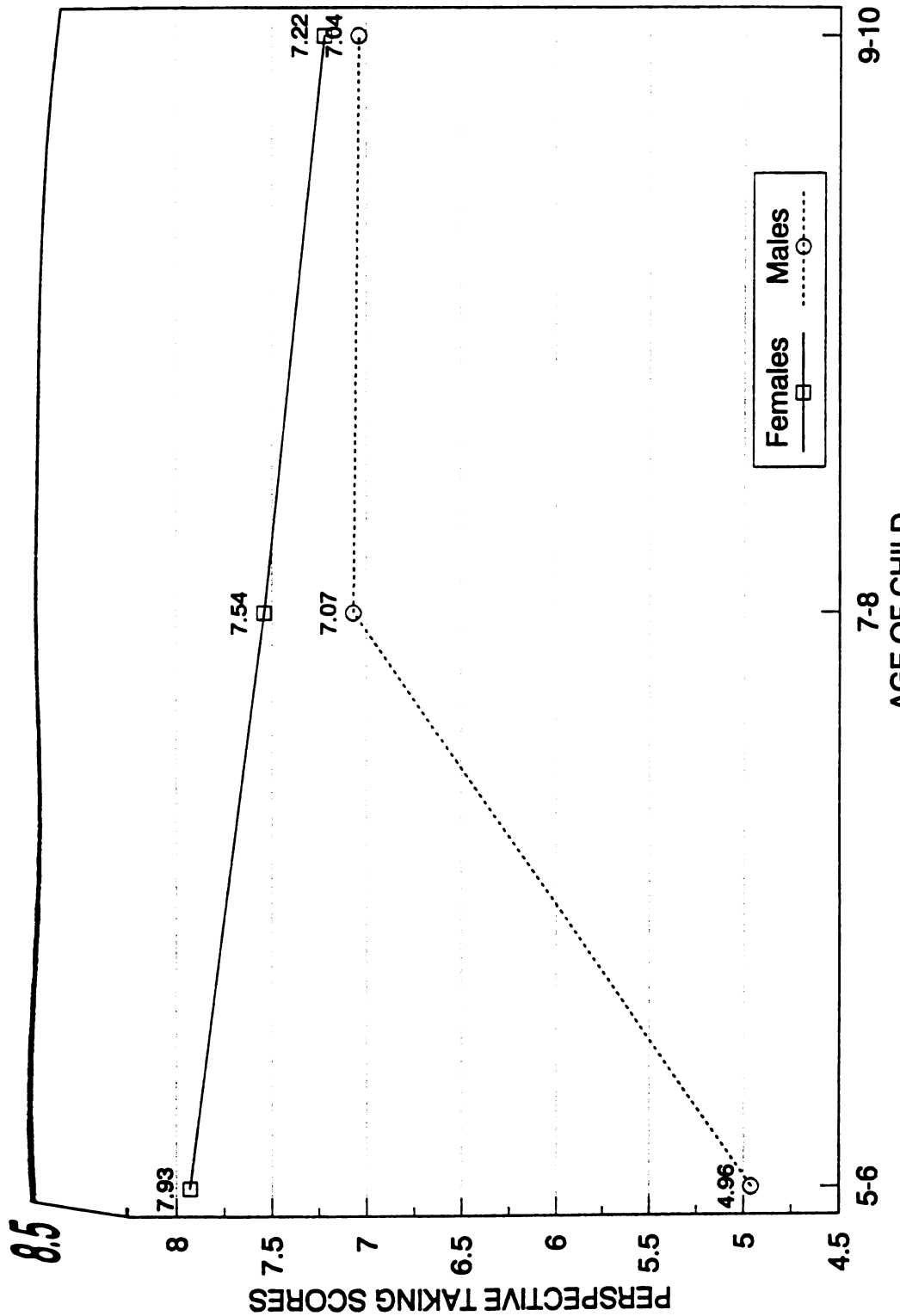


FIGURE 2 Perspective Taking by Age and Sex

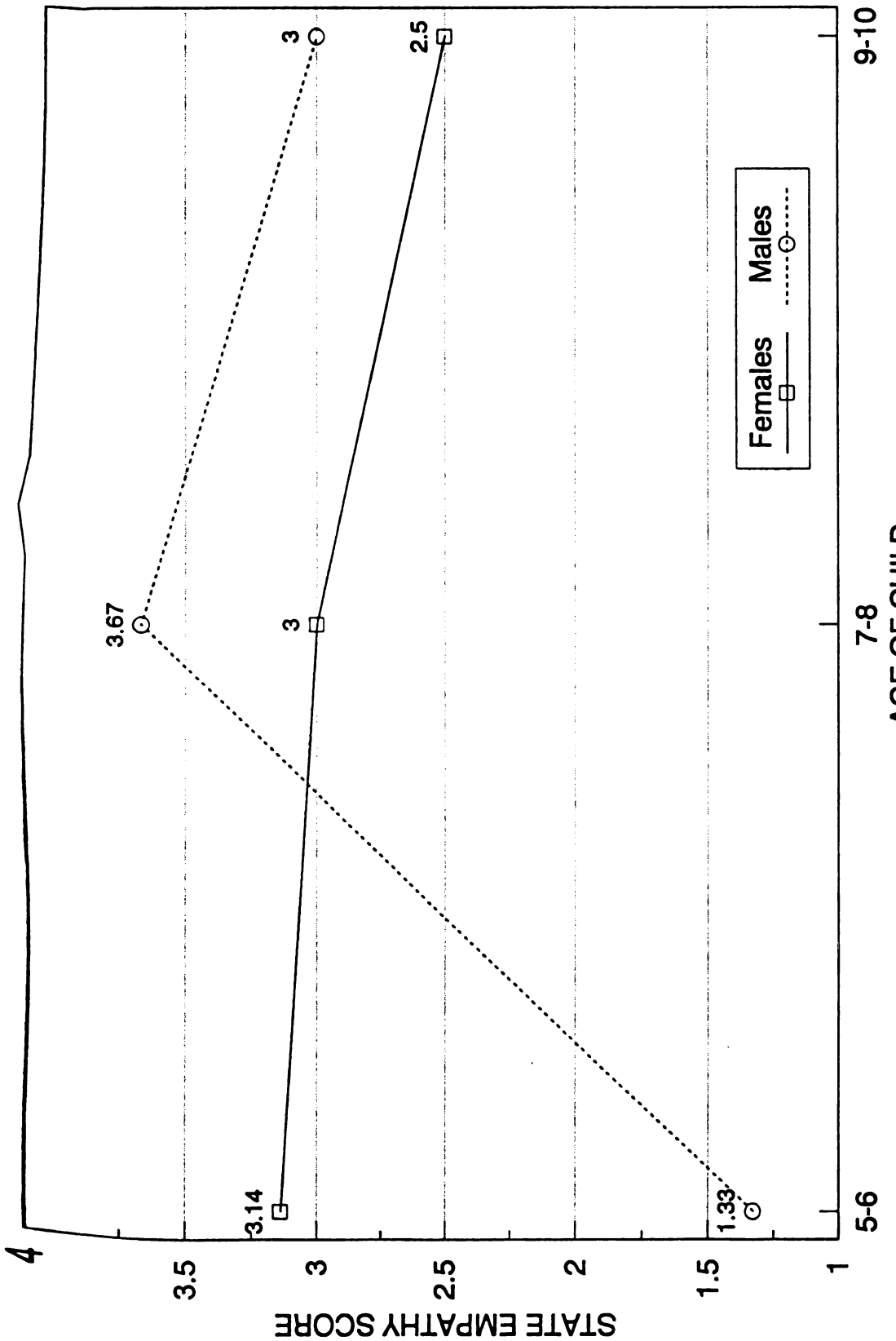


FIGURE 3 State Empathy by Age and Sex

Summary of Findings

1) Hypothesis 1 was not supported. Self-image disparity was negatively related to both trait and state empathy.

2) Hypothesis 2 was supported. Self-image disparity was positively related to prosocial behavior.

3) Hypothesis 3 was not supported. The oldest children did not score significantly higher in disparity than the other two groups; there were no significant age differences in disparity scores.

4) Hypothesis 4 was not supported. Older children did not score significantly higher on empathy than younger children; there were no significant age differences in empathy scores.

5) Hypothesis 5 was not supported. Older children did not exhibit more prosocial behavior than the younger children; there were no significant age differences in prosocial behavior.

6) Hypothesis 6 was not supported. Older children did not have the highest ideal self-image (the seven- and eight-year olds did) nor did they have the lowest real self-image (the five- and six-year olds did).

7) Hypothesis 7 was partially supported. Females scored higher on perspective taking than males, but there were no sex differences in self-image, state empathy, or prosocial behavior.

Additional Analyses

Because many of the hypotheses were not supported, additional analyses were conducted to further investigate any other potential relationships between real and ideal self-image, empathy, and prosocial behavior. The results from these analyses are presented in Appendix I.

DISCUSSION

It should be noted that this section, in addition to discussion on self-image disparity, includes discussion on real and ideal self-image based on the findings presented in Appendix I.

Trait Empathy and Self-Image Disparity, Real Self-Image, and Ideal Self-Image

The hypothesis that self-image disparity would be positively related to both trait and state empathy was not supported. Rather, it was discovered that where self-image disparity was related to self-reported empathy, the relationship was negative. Children who displayed greater self-image disparity on the peer acceptance subscale of self-image disparity had lower scores on total self-report trait empathy and on all of its subscales. It would appear that children who perceive a discrepancy between the way their peer relationships currently stand and the way they would like them to be are less likely to report feelings of empathy toward others than children who report little or no real-ideal peer acceptance disparity. Apparently, then, one's sense of self-image disparity in the domain of peer acceptance provides information about one's tendency to respond empathically toward others--the greater the

disparity or dissatisfaction with one's peer relationships, the lower the empathy.

This is consistent with the data on empathy and real self-image, which revealed that children with high peer acceptance scores are more likely to express empathic concern and personal distress than those with low peer acceptance scores. In explaining this relationship, it is reasonable to suggest that those children who report having satisfying peer relationships are more willing to respond empathically toward peers than children who express a desire for their peer relationships to be different than they currently are. Alternatively, it may be that those children who are better capable of responding to their peers in an empathic manner are more apt to get along with their peers and are thus more likely to be satisfied with their current peer relationships. Data generated in the present study would support both of these interpretations, since regression analyses revealed that the peer acceptance subscale of real self-image predicted trait empathy and trait empathy predicted peer acceptance on real self-image. Further, these interpretations are consistent with a number of previous studies (Carlson, Lahey, and Napeer, 1984; Dodge, 1983; Ladd and Price, 1987; Reaves and Roberts, 1983) investigating correlates of peer acceptance, which consistently show that peer acceptance is associated with cooperation, prosocial behavior, friendliness, social

sensitivity and helpfulness--in short, empathic responding. Future studies should focus on the role of specific kinds of peer relationships in facilitating (or impeding) empathic responding and how peer relations affect self-image.

Analyses also revealed that one's overall sense of real self (i.e, one's self-image) is related to fantasy empathy, perspective taking and overall level of empathy. Therefore, children with a more positive self-image (i.e., those with higher scores on real self-image) are more likely to respond empathically toward others than children with lower scores on real self-image. These findings are consistent with Lickona's (1976) observation that moral, altruistic, and empathic behavior is inextricably linked to one's sense of self. He suggests that individuals with a sense of self that is strong and integrated are more likely to identify with their own actions. That is, they are able to see that their actions and behaviors are not only a direct reflection of the self but actually define the self as well. Moreover, he suggests that those with a sense of self that is weak and less integrated take less responsibility for their actions and therefore, are less likely to engage in empathic responding or prosocial behavior; they fail to view their actions as a direct reflection of the self. Applied to the present study, perhaps those with a lower real self-image and greater levels of self-image disparity have a weaker, less integrated sense of self and are less motivated to

respond empathically than those with a stronger, integrated sense of self (i.e., those with a higher real self-image and lower levels of self-image disparity). Future studies should investigate the potential causal relationship between self-image and empathy--does empathic responding lead to a higher real self-image or does a higher real self-image lead one to respond more empathically?

One's sense of ideal self-image provided no information on the tendency to respond empathically. Therefore, one's current perception of the self (i.e., real self-image) and his/her satisfaction with that perception (i.e., high or low level of disparity) appear to be better predictors of the tendency to respond empathically than is some ideal notion of the self. Therefore, while ideal self-image in and of itself does not provide any information about one's tendency to respond empathically, it is important in terms of how it compares with one's real self-image, for it is this comparison between real and ideal that leads to the level of disparity, and disparity does provide information about one's tendency to respond empathically.

State Empathy and Self-Image Disparity, Real Self-Image, and Ideal Self-Image

Self-image disparity was the only self-image measure which provided any information on state empathy; the real and ideal measures provided no statistically significant

findings. Contrary to the predicted relationship, the cognitive competence subscale of self-image disparity was negatively related to state empathy. This suggests that children who experience a greater discrepancy between their perception of current cognitive abilities (i.e., their real cognitive competence) and the level of cognitive abilities they aspire to have (i.e., their ideal cognitive competence) are less likely to report feelings of sadness in response to an empathy-provoking stimulus (in response to pictures of sick children in the hospital) than are children who experience little or no discrepancy between their real and ideal cognitive competence.

It is possible that children reporting such a discrepancy are indeed operating at a lower level of cognitive functioning than are children who report little or no discrepancy between real and ideal cognitive competence. While the cognitive competence subscale in the present study assesses competence mainly in academic skills, such as reading, writing, and spelling, it may also reflect competence in other cognitive abilities, including those which may be crucial to the ability to empathize. For example, children operating at lower cognitive levels may look at the picture of the children in the hospital but, because they are unable to effectively identify the emotional state of the person, put themselves in the place of the sick child, or imagine how that child must feel, they

are incapable of experiencing any sadness or distress, or are at least unable to articulate it. There are several studies documenting the role of cognition in prosocial behavior and empathy, particularly the ability to take another's perspective (Chandler, 1973; Feshbach and Feshbach, 1982; Lee and Prentice, 1988; Perry and Bussey, 1977). While this explanation may be plausible, it is unclear why no relationship between perspective taking and the cognitive competence subscale of self-image disparity was found in the present study. It may be that the use of an interview with a closed-ended format was not the most effective manner to assess this particular facet of empathy in young children. It may be that if an interview with a more open-ended format were used, children would have described more instances of perspective taking that were clear to the interviewer, even if the child was not aware that he/she was speaking of such a skill.

Prosocial Behavior and Self-Image Disparity, Real Self-Image, and Ideal Self-Image

The hypothesis that self-image disparity would be positively related to prosocial behavior was supported. The maternal acceptance subscale of self-image disparity predicted prosocial behavior. Children who reported a greater disparity between their current maternal relationship and their ideal maternal relationship were more

likely to make cards for sick children in the hospital than children with low disparity on maternal acceptance.

It may be that children who report a greater real-ideal maternal acceptance disparity are less satisfied with their maternal relationship, have lower self-esteem, and are thus more likely to engage in socially desirable behaviors in expectation of some maternal reward than children who report little or no real-ideal maternal acceptance disparity. Children who reported real-ideal disparity on this subscale expressed a wish for more maternal interaction and attention. Therefore, it is possible that these children hoped that making cards would lead to a positive response from the mother (presuming that the mother would be made aware that the child had made cards). In effect, then, it may be that children who wish for more positive maternal interaction and attention are more likely to take advantage of situations that may facilitate the opportunity for positive interaction than children who are satisfied with their maternal relationship. Alternatively, it is possible that children who report real-ideal disparity experience a certain degree of negative affect in response to this disparity. To overcome or at least reduce this negative affect, the child may engage in prosocial behavior which is likely to lead to positive affect both on the part of the child and the recipient of the prosocial behavior. As other studies have noted, children who help, comfort, share and

cooperate with others see that they have an impact upon their world. The resulting perception of being capable and valuable contributes to a healthy self-image (Coopersmith, 1967; White 1960).

Age and Self-Image Disparity

In contrast to the third hypothesis, older children did not display greater self-image disparity than younger children. Younger children were more likely to report greater self-image disparity in the domain of cognitive competence than were older children. The other subscales revealed no significant findings. This is inconsistent with earlier studies (Katz and Zigler, 1967; Leahy and Huard, 1976) which show that older children typically have lower real self-images than younger children and higher ideal self-images than younger children and this results in greater self-image disparity. Therefore, one must consider why the youngest children had a significantly greater self-image disparity on the cognitive competence subscale than both the seven- to eight-year olds and the nine- to ten-year olds.

In addressing this issue, it may be that the items on the cognitive competence subscale were too elementary for older children. Supporting this, it is important to note that for the cognitive competence subscale, the child is asked to rate him- or herself on such items as reading,

writing, spelling, and other basic academic abilities. Perhaps the older children had already mastered the areas of cognitive competence covered in the measure. As a result, their real self-images were as high as their ideal self-images and they experienced little or no disparity. More disparity may have been displayed among the older children if the cognitive competence subscale would have tapped higher and more complex abilities. Further, it would not be unreasonable to suggest that the younger children would perceive themselves as being less skillful in these areas than older children who have been in school much longer and have, for the most part, mastered these abilities, and know that they have mastered them. As a result, younger children would be expected to experience a much larger discrepancy between their current abilities and how well they would like to do in these areas as compared to older children. This may explain why the youngest children revealed the greatest disparity scores for this subscale--they were able to recognize that their reading, writing and basic math skills were in need of practice and improvement.

Age and Trait Empathy and State Empathy

In contrast to the fourth hypothesis, no significant age effects were found for either state or trait empathy. Other studies using self-report measures of empathy (e.g., Lennon and Eisenberg, 1987) generally show empathy to be

positively related to age. It should be noted, however, that studies using a variety of measures to assess empathy, such as physiological indices, self-report measures, teacher and peer report measures, or affect matching measures, have generated mixed findings (Bryant, 1982; Cohen, 1974; Epstein, 1973; Fay, 1971; Powell, 1951). This would suggest that the relationship between empathy and age is at least partially a function of the type of measure used to assess empathy. This is indicative of the abstract and problematic nature of dealing with a construct such as empathy, particularly with children. It may be that differences based solely on age were not found because there are factors in addition to age which are involved in the ability to respond empathically. Therefore, it may be that a simple linear relationship between age and empathy is an inaccurate, or at least insufficient, interpretation. Individual differences, such as early social experiences or temperamental/emotional factors may also come into play. Since many of these factors typically increase with age (such as social experiences), it may be that one is mistakenly led to the conclusion that it is age which is the variable crucial to understanding empathic responding. Therefore, it is possible that it is not age per se which is the relevant factor but rather, it is other factors that happen to increase and/or become more identifiable and stable with age.

It is just as feasible, however, to suggest that some variables which may affect one's tendency to respond empathically are relatively unaffected by age. For example, studies have identified certain cultural factors believed to play an important role in the development of empathic and prosocial behavior (e.g., Mussen and Eisenberg, 1977). Mussen and Eisenberg (1977) have concluded that children are likely to develop high levels of empathic responding and prosocial behavior if they are raised in cultures characterized by 1) stress on consideration of others; 2) simple social organization or a traditional rural setting; 3) assignment of important economic functions to women; 4) members of extended families living together; and 5) early assignment of tasks and responsibilities to young children. While Mussen and Eisenberg (1977) speak of cultural influences, it is not unreasonable to suggest that these same issues may be operating at the family level as well. It may be that not only cultures differ in these characteristics but that families do as well. Therefore, it may be that those families marked by the above characteristics have children who are more empathic and prosocial than families who are not marked by those characteristics. Therefore, it may be that no age differences in empathy were found in the present study because other factors which are relatively unaffected by age alone, such as family environment, were responsible for

differences in empathy found among the children. Studies investigating the role of family environment, including the role of the factors outlined by Mussen and Eisenberg (1977), and how they relate to the tendency to respond empathically and prosocially would be a worthwhile undertaking.

Age and Prosocial Behavior

The fifth hypothesis was not supported. Age was not related either to the number of cards made nor the amount of time spent making them. This is inconsistent with earlier studies confirming that age is positively related to prosocial behavior (Rushton and Wiener, 1975; Wright, 1942). In explaining this outcome, it is necessary to question the measures used to assess prosocial behavior. First, using the number of cards a child makes for children in the hospital may be a problematic measure. It may be that younger children prefer coloring and card making activities to a greater extent than older children but are not necessarily more prosocial than older children. As a result, it may be that older children are making a comparable number of cards but are doing so for very different reasons.

Moreover, because the card making activity was suggested to the children by an adult, younger children may have been more compelled to act in response to an authority figure than older children. In other words, while the

younger children may have made cards in order to obtain adult approval or to avoid adult disapproval for not doing so, older children may have made the cards out of a sincere desire to make the children in the hospital feel better.

The second measure of prosocial behavior was the amount of time spent making cards for sick children in the hospital. Again, this measure may also be problematic in assessing prosocial behavior. The amount of time spent making cards may be as much a function of artistic ability and activity preference as it may be a function of prosocial behavior. Most children who chose to make cards spent most of their time doing so rather than playing with the other toys. Therefore, the children seemed to view making cards in "all or nothing" terms--if they chose to make cards, it was as if they felt they were committing themselves to doing this the entire time they were in the playroom. As a result, this perception may have discouraged children from engaging in the activity at all. Given these confounding factors, it is not surprising that significant results were not uncovered. Perhaps a more accurate measure would have been one which gave the child the opportunity to donate something they had won during their visit to the playroom. This would have avoided potentially confounding factors such as activity preference or artistic abilities and would have allowed the children the opportunity to engage in prosocial behavior while still giving them time to engage in other

playtime activities during their visit.

Pattern of Self-Image Disparity

The sixth hypothesis was not supported. The predicted pattern of self-image disparity for older children, one characterized by either a higher ideal self-image and a lower real self-image, or by a higher ideal self-image and a similar real self-image as compared to younger children, was not revealed. This is inconsistent with earlier studies revealing either one or the other pattern of self-image disparity for older children (Katz and Zigler, 1967; Leahy and Huard, 1976).

In terms of age and real self-image, a curvilinear relationship was revealed for both total real self-image and its subscale of cognitive competence. Real self-image was low among the five- to six-year olds, increased substantially among the seven- to eight-year olds and then slightly declined among the nine- to ten-year olds. The results from the seven- and eight-year olds and the nine-to ten year olds follows a rather predictable pattern--that is, a self-image that is more difficult to attain (and perhaps unrealistically high) at seven- and eight-years of age but becomes less extreme and easier to attain (and perhaps more realistic) with age (i.e. at nine- and ten-years old). However, the fact that the youngest children had the least positive self-perceptions (i.e., the lowest real self-image)

is inconsistent with numerous other studies showing that younger children's self judgements tend to be very high and show a poor match with the opinions of others and with objective performance (Eshel and Klein, 1981; Marsh, Barnes, Cairns, and Tidman, 1984; Nicholls, 1979, Ruble, Boggiano, Feldman, and Loebl, 1980; Stipek, 1981). It is not clear why the youngest children had the lowest real self-image scores, particularly with regard to overall total real self-image. Regarding the cognitive competence subscale, it may be, as noted earlier, that young children are indeed aware of their inadequacies in this domain and as a result, have lower real self-images.

In terms of age and ideal self-image, seven- to eight-year olds had the highest ideal self-image on the cognitive competence and maternal acceptance subscales. This is in contrast to earlier studies showing that older children typically have the highest ideal self-image (Katz and Zigler, 1967; Leahy and Huard, 1976). Katz and Zigler (1967) found that the fifth grade children in their sample had significantly higher ideal self-images than the second grade children. Similarly, Leahy and Huard (1976) found that the sixth grade children had higher ideal self-images, followed by the fourth graders and the second graders. In accord with these studies, however, was the present finding that the youngest group of children had the lowest ideal self-image.

In explaining why the middle group scored highest on ideal self-image, it may be that seven- to eight-year olds tend to think in a black or white fashion to a greater extent than do older children. For example, it was noted earlier that younger children are less able to engage in cognitive differentiation (Achenbach and Zigler, 1963; Harter, 1988). As a result, they tend to see issues in an either/or fashion which is characterized by opting for the most extreme alternatives. It is possible that the seven- to eight-year olds had higher ideal self-images than nine- to ten-year olds because of this tendency--they were often choosing the most extreme response alternatives to the statements. For example, the seven- to eight-year olds more often chose response alternative number 4, which read either "I wish it were <u>always</u> like me or I wish I were <u>really</u> good at..." than the nine- to ten-year olds. The older children, on the other hand, were able to adopt a less extreme position on many of the questions and were also able to give reasons why they would not <u>always</u> want to do or have something--a realization which the seven- to eight-year olds did not seem to consider. For example, one statement read, "this boy's/girl's mom lets her stay overnight at friends' houses but this boy's/girl's mom does not". "Which girl/boy do you <u>wish</u> you were?" At this point, both the seven- to eight-year olds and the nine- to ten-year olds usually chose the boy/girl who was allowed to spend the night at friends'

houses. When the child was then probed further by being asked, "Do you wish your mom always let you stay overnight or usually let you stay overnight, the vast majority of seven- to eight-year olds chose always, while the nine- to ten-year olds chose usually. Moreover, after choosing their response alternative, most of the older children justified why they did not choose the most extreme answer by citing disadvantages to doing so. For example, many of the older children noted that they would not always want to spend the night over at their friend's house because they "would miss their mom and dad", or because they "would miss sleeping in their own bed". These types of considerations were rarely mentioned by the seven- to eight-year olds, who usually opted for the most extreme alternative. While this explanation seems plausible, it is unclear why the youngest group, the five- to six year olds did not have the highest ideal self-image, because, presumably, they would be even less capable of engaging in cognitive differentiation than the seven- to eight-year olds. It is possible that the youngest children's ideal self-images were not that different from their real self-images because they found it difficult to effectively distinguish the two from each other. As Achenbach and Zigler (1963) have suggested, the ideal self-image, if conceptualized as distinct from the real self, requires some capacity for abstract hypothetical thinking. Therefore, it may be that the youngest children

were unable to do this adequately, and in effect, were confusing their ideal cognitive self-image with their real cognitive self-image, which was lower than the real cognitive self-image found among the older children.

As with the cognitive competence subscale, the seven- to eight-year olds also had the highest ideal self-image scores on the maternal acceptance subscale. However, next were the five- to six-year olds followed by the nine-to ten-year olds. While the same argument as that presented above may also apply in this instance, two other factors must also be considered. First, it is necessary to consider why the youngest children did not have the lowest ideal self-image score on this subscale and second, why the nine- to ten-year olds did have the lowest ideal self-image score. In attempting to explain the reason for these findings, it is important to consider the nature of the maternal acceptance subscale. Questions on this scale concern the child's current and ideal perceptions of their maternal relationships. The measure taps maternal acceptance by addressing such issues as how often the mother and child spend time together, how often the mother cooks the foods the child likes, or how often the mother takes the child to places he/she likes to go. While the sixth hypothesis proposed that the oldest children would score highest on ideal self-image, it may be that the maternal acceptance subscale would not be applicable because the items appear to

tap the extent of dependence upon the mother--an issue that would most likely be more salient to younger children than to older children. It is reasonable to suggest that older children scored lower on ideal self-image for this subscale because it is no longer as important to them to have mother's attention and to spend time with her as it is to the younger children. Rather, the nine- to ten-year olds have probably established a close network of friends and other peers who are becoming increasingly important. As a result, the maternal relationship is no longer such a crucial or salient source of social interaction and emotional attachment.

Other considerations may also explain why different results were revealed in the present study as compared to the studies cited above. First, it must be noted that in the present study there were more children in the seven- and eight-year old group than in the other two groups. Therefore, the finding that this group scored highest on ideal self-image may be partially due to the unequal groups being compared to one another. Second, the measure of self-image disparity used in the present study was slightly different than those measures used by the researchers who found the oldest children to have the highest ideal self-image. For example, Katz and Zigler (1967) were able to collect three separate measures on self-image disparity--an adjective checklist to which one responded "yes" or "no"; a

six-alternative questionnaire, and a picture instrument similar to the Harter measure used in the present study. It may be that similar findings would have been revealed had the present study utilized a number of disparity measures. Given the age of the youngest children, however, three measures would have demanded too much time and attention on the part of such young children.

Finally, and most importantly, the youngest children who participated in the Katz and Zigler (1967) and the Leahy and Huard studies (1976) were eight- to nine-years old. Therefore, the age differences in self-image disparity that were found in these studies applied only to children eight-years of age and older. If these studies had included children of younger ages, they may have found a curvilinear relationship between self-image disparity and age. It is possible that, as the present study revealed, very young children display a relatively high level of self-image disparity which decreases gradually to approximately age seven- or eight-, and thereafter increases with age again, but not to the level that it was at age five or six. Given the ages of the children in the other studies, this curvilinear model would not have been detected.

Sex of Child, Trait Empathy, and State Empathy

The hypothesis that females would score higher than males on trait empathy was partially supported--girls scored

higher on the perspective taking subscale of trait empathy than males. This is consistent with other studies showing that females score higher on self-report measures of empathy than males (Miller and Eisenberg, 1987). This finding is also consistent with other studies (e.g., Hall, 1978) showing that females perform better at all ages than males when asked to make judgements about others' emotional states using nonverbal cues communicated through facial expression, bodily posture, or tone of voice; abilities that are likely to depend strongly on perspective taking. This finding may be due to different socialization experiences for males and females, indicating that parents encourage girls to be open and expressive and males to be emotionally controlled and distant (e.g., Block, 1983). This difference in socialization may in turn influence the nature of peer relationships among males and females. Past studies have documented a number of differences between male and female peer relationships (Lever, 1976; Maltz and Barker, 1986; Thorne, 1982; Waldrop and Halverson, 1975). These studies have shown that males tend to play in larger groups, engage in rougher play and in interaction centering on some type of activity or game, and to fight more often than females. Females tend to play in small, intimate groups marked by self-disclosure and a sense of emotional closeness. Given this, it is reasonable to suggest that the socialization experiences of females, coupled with the nature of their

peer interactions, are more akin to fostering certain facets of empathy, such as perspective taking, than are the socialization and peer experiences of males.

In addition, sex by age interactions approached statistical significance for the perspective taking scale and for total trait empathy. The pattern of scores for males on both of these scales reveals a relatively low score among the five-to six-year olds, followed by a rather sharp increase in scores among the seven- to eight-year olds and then either little or no increase in scores among the nine- to ten-year olds. Scores among females, on the other hand, remain fairly stable across the three age groups. It may be that females have already attained the ability necessary to respond empathically, and as such, little change is seen in their empathy scores across the three age groups. On the other hand, it may be that boys at first lack the abilities to articulate or express empathy, even though they may be able to experience it. However, with age, particularly beginning around the age of seven, boys show a dramatic increase in this ability. This notion of different rates of developmental maturation in varying abilities between the sexes has been noted in a number of studies on other areas, such as verbal abilities, physical and motor development, and reading acquisition (Dwyer, 1973; Maccoby and Jacklin, 1974; Schachter, Shore, Hodapp, Chalfin, and Bundy, 1978).

Given that a large number of studies have noted sex

differences in other facets of empathy, such as personal distress or empathic concern (e.g., Blanck, Rosenthal, Snodgrass, DePaulo, and Zuckerman, 1981; Miller and Eisenberg, 1987), it is important to consider why sex differences were not revealed for the other subscales of empathy in the present study. Other studies noting sex differences have often cited social desirability as the factor responsible for these differences. It has been suggested that males are less likely to report empathic feelings because they have been socialized to associate empathy and the expression of emotions with femininity. In the present study, however, this does not appear to be the case. No sex differences were revealed for those subscales (i.e., the personal distress and empathic concern subscales) where one would expect to find the greatest social desirability effects. For example, the personal distress subscale taps one's tendency to become emotionally upset and flustered in situations where another person is hurt and in need of help; many of these questions address the issue of being both nervous and frightened. If social desirability effects were operating in this instance, it is likely that males would have scored significantly lower on this subscale than females, especially considering the fact that the interviewer was always a female. This, however, was not the case. Therefore, it is possible to suggest that males and females, at least at these ages, do not significantly differ

in their empathic capabilities (with the exception of perspective taking, where females appear to score higher). Further, it is possible that by early adolescence males score just as high as females on perspective taking as well, so that by this age males and females do not significantly differ on any facet of empathic responding. It may be that differences which are detected later are not due to true sex differences in empathic capabilities, but are due to social desirability effects to which younger male children are less susceptible.

The present study found no sex effects for the state empathy measure. Other studies using ratings of mood in response to empathy-provoking stimuli have generated mixed results, with some reporting no difference (Frodi and Lamb, 1978), others reporting higher scores for females (Wispe, Kiecolt, and Long, 1977) and still others reporting higher scores for males (Frodi, Lamb, Leavitt, and Donovan, 1978). It would appear that such state-dependent measures are not as consistent or reliable as measures tapping a more stable empathic orientation.

Sex by age interaction effects were found for state empathy. The pattern was similar to that found for total trait empathy and the perspective taking subscale. Males showed a sharp increase in scores from the five- to six-year old group to the seven- to eight-year old group, and little change from the seven- to eight-year olds to the

nine- to ten-year olds, whereas females revealed a stable pattern of scores across all three ages. As noted earlier, this may be due to sex differences in rates of development for different abilities. However, due to the unequal numbers of children in each age group, and the small number of children in the nine- to ten-year old group, these findings must be interpreted with caution.

Sex of Child and Prosocial Behavior

Part of the seventh hypothesis, predicting that females would display greater prosocial behavior than males, was not supported. While some studies have found that females demonstrate more prosocial behavior than males, others have found no relation and still others have found males to be more prosocial than females (Lennon and Eisenberg, 1987; Miller and Eisenberg, 1987; Rice and Grusec, 1975; Yarrow and Waxler, 1976). The measure used to assess prosocial behavior is of vital importance in explaining these conflicting findings. As noted earlier such factors as artistic ability and activity preference may have confounded using this instrument as an accurate measure of prosocial behavior. As suggested previously, future studies must take this into account and adopt a measure that does not involve potentially confounding factors. A more accurate assessment of prosocial behavior may have been to give the child an opportunity to donate prizes or candy to children in the

hospital.

Sex of Child and Self-Image Disparity, Real Self-Image and Ideal Self-Image

Multivariate analyses of variance on self-image and sex were performed but produced no significant findings. This is inconsistent with two other studies, showing that males have greater self-image disparities (Glick and Zigler, 1985; Stoodt and Balla, 1974). These studies revealed that while males and females had similar real self-images, males had a higher ideal self-image which resulted in a greater level of disparity. In the present study, males and females had similar real self-images and similar ideal self-images. This finding is partially consistent with the above study (similar real self-images) and is also consistent with other studies revealing no sex differences in self-image (Maccoby and Jacklin, 1974). In the present study, therefore, males and females have equally positive self-images, have similar notions of an ideal self, and have similar disparities between their real and ideal selves. What appears to be more salient in considering differences in real, ideal and self-image disparity is age rather than sex.

Summary and Conclusions

The results of the present study suggest that self-image is related to both self-reported trait and state

empathy. Both self-image disparity and real self-image provide predictive value for self-reported trait empathy. Additionally, self-image disparity provides predictive value for self-reported state empathy and prosocial behavior as well.

With respect to self-image disparity, peer acceptance in particular, the relationship is negative: the greater the disparity, the lower the trait empathy score. In characterizing the relationship between empathy and peer acceptance, it is not only possible but probable that the relationship is bi-directional in nature. Therefore, future research should investigate the role of peer relationships and one's perception of peer acceptance in facilitating or impeding the ability to respond empathically and it should consider how the ability to respond empathically may facilitate the formation of satisfying peer relationships. For example, it may be worthwhile to investigate the personality correlates, including the tendency to respond empathically toward others, of children who are rated by teachers and peers as being popular versus those who are rated as unpopular. Further, it would be interesting in such an analysis to investigate home environment variables, such as those suggested by Mussen and Eisenberg (1977), of popular and unpopular children to better understand how this may impact upon both their tendency to respond empathically toward others and on their level of satisfaction with peer

relations. Finally, it would be advantageous to investigate the impact of empathy training on peer relationships. Such an investigation may provide insight about children who are rejected or neglected by their peers and whether or not empathy training would facilitate the formation of more satisfying peer relationships among these children. A number of studies have shown that children who are rated as popular by their peers more often engage in interactions characterized by the expression of empathy, cooperation, help, and acceptance than are children who are rated as unpopular (e.g., Stocking, Arezzo, and Leavitt, 1980). Therefore, it would be worthwhile to investigate the impact of teaching children skills that are essential to these characteristics. For example, one may facilitate empathy in neglected or rejected children by teaching them how to effectively identify the emotional states of others, or by allowing them the opportunity to role play through skits or other dramatic play. This may provide them with the necessary social skills that would lead to more positive, stable peer relationships, which, in turn, may lead to less disparity and a more positive real self-image. Aside from children who are rejected or neglected by peers, such information may be extremely valuable to children who have been labelled as anti-social or delinquent. Studies have shown that children labelled as anti-social or delinquent are often ineffective in empathic skills,

particularly perspective taking (Chandler, 1973; MacQuiddy Maise, and Hamilton, 1987). If an effective means of empathy training could be established perhaps this population of children would not reach the point of being labelled by society as anti-social or delinquent. Additionally, it would be interesting to investigate the self-image of these children to determine how this too may affect their tendency to engage in anti-social or delinquent behaviors. For example, it would be interesting to examine whether or not children who are delinquent display lower self-image disparity than children who are regarded as non-delinquent.

Self-image disparity also provided predictive information on one's tendency to report state empathy. As with trait empathy, the relationship was negative: the greater the disparity, particularly on the cognitive competence subscale, the lower the state empathy score. Future studies should investigate the role of cognitive capabilities in the ability to be <u>emotionally</u> affected by an empathy provoking stimulus. For instance, it may be interesting to consider the relationship between one's level of empathic arousal in response to an empathy provoking stimulus and one's level of responding on Piagetian tasks, such as the three mountain task which requires the child to describe a three-dimensional scene from another person's perspective, or a conservation of quantity task, in which

the child is tested for his/her understanding that a certain amount of liquid will remain the same, regardless of the shape of the container that holds it.

The finding that self-image disparity is negatively related to both trait and state empathy may lend support to Roger's and Dymond's (1954) earlier formulation which proposed that self-image disparity was indicative of maladjustment. While the term "maladjustment" may be too extreme, it may be that self-image disparity is a part of normal and growth and development only to a certain extent. Moreover, it may be that while disparity up to a certain point is normal, it may not necessarily be positive. Therefore, it would be interesting to investigate whether there is a "healthy" level of disparity and whether there is a level of disparity that may be considered maladaptive.

Finally, with regard to self-image disparity and prosocial behavior, a positive relationship was revealed. The maternal acceptance subscale of self-image disparity was negatively related to the number of cards made. It may be that self-image disparity leads to some degree of negative arousal which motivates that child to engage in some behavior that will lead to positive affect and thereby reduce the negative arousal. Prosocial behavior may be one such behavior children engage in to encourage others to respond more positively toward them and make them feel better about themselves. It would be interesting to

investigate the level of disparity in children who engage in spontaneous prosocial behavior versus those who do not to determine whether or not disparity is one of a number of forces motivating children to engage in prosocial behavior.

With respect to real self-image, its relationship to trait empathy is positive: the higher the real self-image, the higher the trait empathy score. This is most salient for overall real self-image and the peer acceptance subscale of real self-image. Future studies should address the direction of this relationship: does a more positive self-image lead to greater empathy or does greater empathy lead to a more positive self-image? One might gain further insight into this relationship by interviewing individuals on their reasons for responding or not responding empathically. A measure similar in format to that used by Secord and Peevers (1974) may be useful in attempting to secure such information. Such an interview would implement a more open-ended method rather than a formal interview. Using such an approach, it would be interesting to note how many people who chose to respond empathically would provide reasons that reflected the way they defined themselves. For example an answer such as "I would feel sad if I saw someone crying because I consider myself a caring, sensitive person," would appear to suggest that people who engage in empathic behavior see their behavior as an extension of who they are and how they define themselves--a reflection of

their real self-image. This would be in accord with the observations of Lickona (1976) as noted earlier, who asserts that when the sense of self is strong and integrated, one identifies with and defines oneself in terms of one's actions. Therefore, it would be worthwhile to investigate people's reasons for engaging in empathic behavior to determine the extent to which those reasons reflect one's sense of self.

Additionally, research studies should address such questions as how does one instill a positive real self-image in children, and how does one teach children to respond in an empathic manner toward others. It has been suggested that adults play a crucial role in children's self perceptions. Such factors as parental guidance, nurturance, and verbal communication have been consistently cited as significant factors in the child's formulation of self (Coopersmith, 1967; Gecas, 1971; Rosenberg, 1965). Therefore, in addition to the final score the child receives on the self-image measure, it is important to consider the process by which the child makes self-evaluative judgements which ultimately lead to that final score. Only after that process is better understood can effective interventions be implemented to foster the development of a positive self-image in children who lack it.

Self-image disparity and real self-image appear to be important factors in understanding childrens' tendency to

respond empathically. However, greater understanding of what self-image disparity actually signifies to the child is needed. Because it is significantly related to empathy and prosocial behavior, further studies aimed at better understanding this construct are needed. For example, the following questions need to be addressed, "Is self-image disparity indicative of low self-esteem?" "Does it necessarily involve negative affect?" "Does self-image disparity serve any constructive purpose?" It may be that for some children disparity provokes low self-esteem, while for others it acts as a healthy and important source of motivation toward personal goals and aspirations. In attempting to answer these questions concerning disparity and self-esteem, a model is proposed. It is suggested that the manner in which the child uses the disparity information, and the importance of the content area in which the disparity is experienced are key components to determining whether or not disparity affects the child's self-esteem. Specifically, it is proposed that the importance of the content area to the child and the child's sense of control in reducing disparity are crucial variables impacting upon the child's self-esteem. The child's sense of control may be explained in terms of locus of control, external or internal. Children who have an internal locus of control have a positive sense of influencing the major events in their lives; they believe that their own

inclinations and actions determine what happens to them, and therefore feel responsible for their own success or failure. These children, upon experiencing disparity in a content area that is important to them, actively seek to change their behavior and/or environment in order to improve their situation and decrease disparity. For these children, disparity does not deliver a blow to self-esteem because they know they possess the power and ability to improve a situation with which they are currently dissatisfied. However, children with an external locus of control feel essentially powerless over the course of events in their lives; they believe that life's important outcomes are in the hands of fate, or at least other people. Upon experiencing disparity, these children are unable to understand that their own actions can improve a currently dissatisfying situation. As a result, they feel powerless to decrease this sense of disparity, and low self-esteem ensues. This model is supported by studies showing that an internal locus of control is associated with high self-esteem, whereas an external locus of control is associated with low self-esteem (e.g., Rosenberg, 1979). Therefore, a study to test this proposed model which suggests a relationship between disparity, locus of control, and self-esteem would appear to be a worthwhile undertaking.

Finally, if self-image disparity is to be compared among children of different ages and developmental levels,

it is important to construct a measure that will be sensitive to the ages of all children in the study; it should be one which addresses issues in each of the content areas that are characteristic of and salient to each age group. At the same time, the items must remain similar enough so that differences found among the groups can be interpreted in terms of developmental differences rather than differences in the instrument used to measure the disparity. This, no doubt, presents a formidable challenge for those interested in self-image research among children.

APPENDIX A

Parent Letter

APPENDIX A

Parent Letter

Dear Parent(s):

Parents, teachers, and other professionals all know how important friendships are for children. The ability to develop positive relationships with other children enhances a child's self-esteem and encourages social growth. Our goal is to learn more about how children work and play with their friends. The purpose of this letter is to describe our project and to invite you and your child to participate in this important research.

We would like for you and your child to choose a friend (with the permission of the friend and the friend's parent) who is your child's same sex and age (within one year). You and the two children will visit our playroom on the MSU campus. The children will have the opportunity to play with a variety of toys and craft materials. We will also talk with you and the children about social relationships. The entire visit lasts a little over an hour and will be scheduled at your convenience (usually in the late afternoon or early evening). The parents and children who have been involved tell us that they have had a good time. Parents seem to find the experience particularly informative, and we are happy to answer questions about the project and about child development in general.

To participate in the study, please sign the attached form. We hope that you will take this opportunity to become involved in our project. Please feel free to contact us if you have any questions about this work (355-2162; 355-9561).

Sincerely,

Marianne McGrath, Ph.D.

Please sign this form and return it to your child's school at your earliest convenience.

Name of Child: _____

Child's Birthdate: _____

Child's Sex: **Male** _____ **Female**_____

Parent or legal Guardian: _____

Telephone Number: _____

_____ Yes, my child and I will participate

_____ No, we will not participate

APPENDIX B

Consent Form

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/observation area (room 120 of the Psychology Research Building) in the psychology department of Michigan State University. I understand that this will imvolve 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 activitives 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 another 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 concent 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 chooose 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 this project. I understand that although my child will probably enjoy particpating in this project, that it is not a specific treatment or 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 for any reason.

I agree to inform my child beforehand that he or she has the opprotunity 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 attached page and keep this page for your records. Thank You!

==========

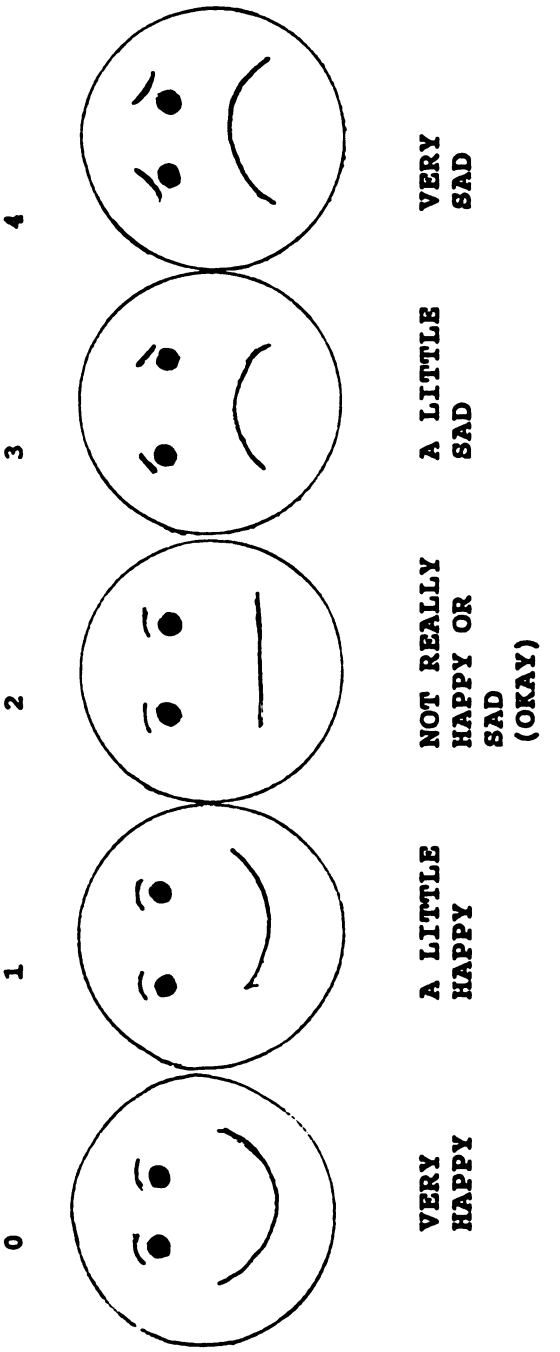
_____	_____
Date	
	_____
	Signature of Parent(s)
_____	_____
Child's Name (please print)	Phone Number
_____	_____
Child's Birthday	Classroom and Teacher's Name

APPENDIX C

State Empathy Measure

APPENDIX C

State Empathy Measure

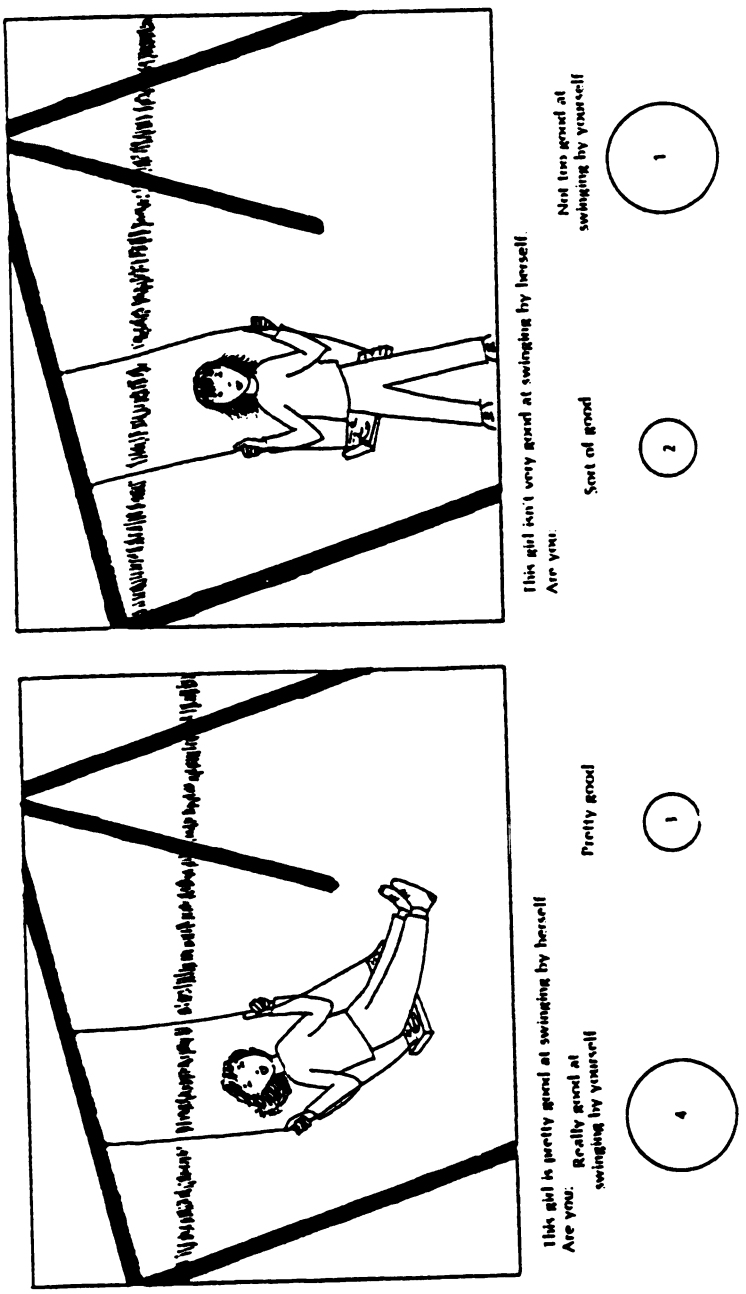


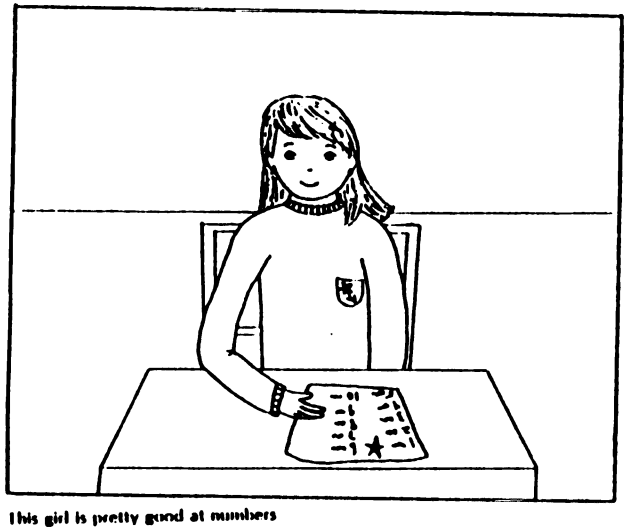
APPENDIX D

Sample of the Harter Scale

APPENDIX D

Sample Harter Scale





This girl is pretty good at numbers

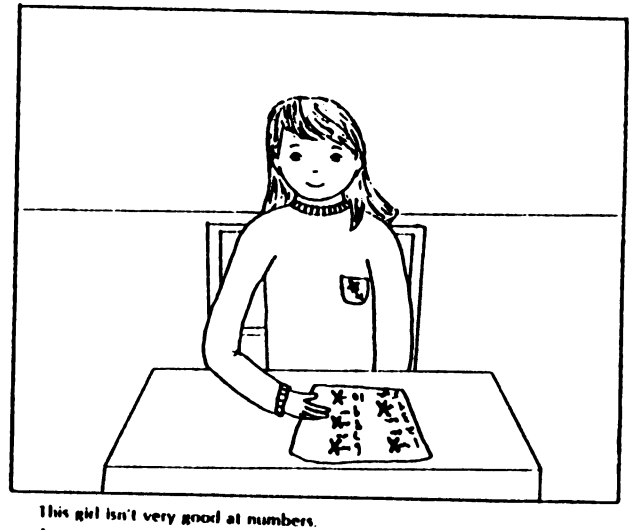
Are you:

Really good at numbers

4

Pretty good

3



This girl isn't very good at numbers.

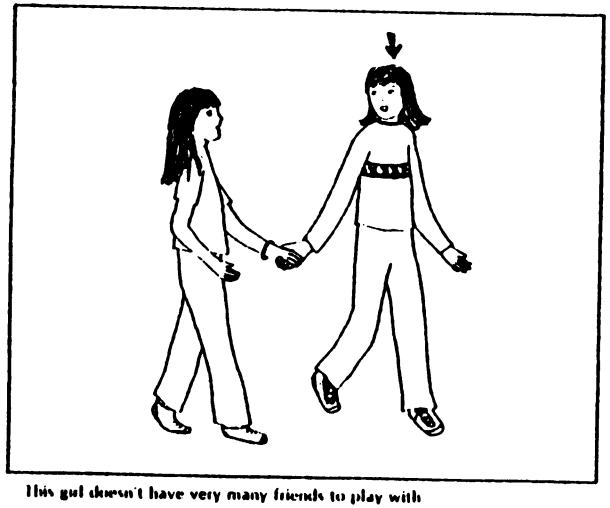
Are you

Sort of good

2

Not too good at numbers

1



This gal doesn't have very many friends to play with

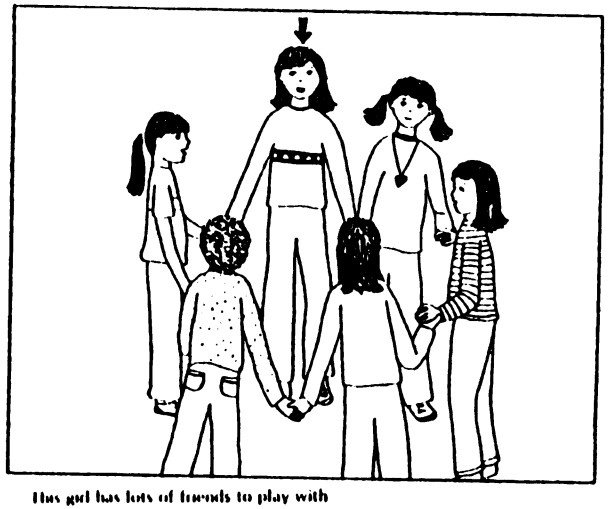
Do you have:

Hardly any friends

1

A few

2



This gal has lots of friends to play with

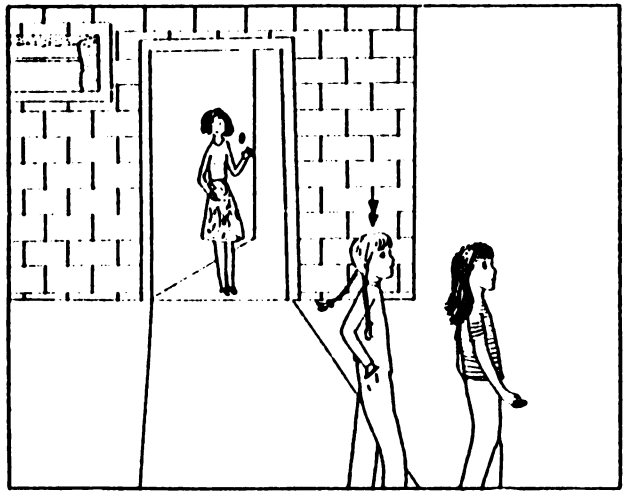
Do you have

Pretty many

1

A whole lot of friends to play with

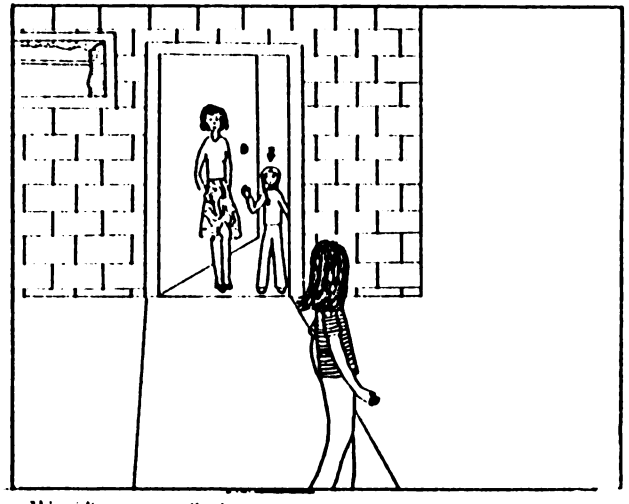
4



This girl's mom usually lets her eat dinner at friend's houses.
Does your mom:

Always let you eat over — 4

Usually — 3



This girl's mom usually doesn't let her eat dinner at friend's houses.
Does your mom:

Sometimes — 2

Hardly every let you eat over — 1

APPENDIX E

Real Self-Image Scoring Sheet

APPENDIX F

Ideal Self-Image Scoring Sheet

Item	Cognitive	Peer	Physical	Maternal
1.Good at numbers	1____			
2.Friends to play with		2____		
3.Good at swinging			3____	
4.Eats at friends				4____
5.Knows alot in school	5____			
6.Others share		6____		
7.Good at climbing			7____	
8.Mom takes you places				8____
9.Can read alone	9____			
10.Friends to play games with		10____		
11.Good at bouncing ball			11____	
12.Mom cooks favorite foods				12____
13.Good at writing words	13____			
14.Has friends on playground		14____		
15.Good at skipping			15____	
16.Mom reads to you				16____
17.Good at spelling	17____			
18.Gets asked to play by others		18____		
19.Good at running			19____	
20.Stays overnight at friends				20____
21.Good at adding	21____			
22.Others sit next to you		22____		
23.Good at jumping rope			23____	
24.Mom talks to you				24____
Column Total:	_____	_____	_____	_____
Column Mean: (Total Divided by 6)	_____	_____	_____	_____

Comments:

APPENDIX G

Child and Parental Trait Empathy Questionnaires

APPENDIX G

Child and Parent Trait Empathy Measures

Parent 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 to examine these age differences. Thank you for your time and thoughtfulness in completing this questionnaire!

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

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

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

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

3. He seems to daydream and fantasize with some regularity about things that might happen.

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

4. In emergency situations, he feels apprehensive and ill at ease.

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

5. Sometimes he doesn't appear to feel sorry for people less fortunate than himself.

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

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

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

7. He tries to look at everybody's side of an argument before he decides who's 'right'.

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

8. He sometimes feels very helpless when he is in the middle of a very emotional situation.

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

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

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

10. He is usually objective when watching a movie or a play, and he doesn't often get completely caught up in it.

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

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

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

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

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

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

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

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

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

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

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

16. Being in a tense emotional situation scares him.

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

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

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

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

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

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

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

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

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

21. He is often quite touched or affected by things happening around him.

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

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

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

23. He tends to lose control during emergencies.

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

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

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

25. I would describe him as a pretty 'softhearted' person.

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

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

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

27. When he sees someone who badly need help in an emergency, he goes to pieces.

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

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

Does not Describe Him Well				Describes Him Very Well
0	1	2	3	4

Child Questionnaire

Subject#_____

Empathy Scale
to be used with graduated wooden scale

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 (what other word could we use?!) and they keep getting bigger until the one on this end has 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?

0 1 2 3 4 5 6 7 8 9 10

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

0 1 2 3 4 5 6 7 8 9 10

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

0 1 2 3 4 5 6 7 8 9 10

Okay, here are some more questions, and answer them just like you've been doing. If a questions 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 this like you?

0 1 2 3 4 5 6 7 8 9 10

2. Some kids feel (very) 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?

0 1 2 3 4 5 6 7 8 9 10

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?

0 1 2 3 4 5 6 7 8 9 10

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?

0 1 2 3 4 5 6 7 8 9 10

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

0 1 2 3 4 5 6 7 8 9 10

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?

0 1 2 3 4 5 6 7 8 9 10

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

0 1 2 3 4 5 6 7 8 9 10

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?

0 1 2 3 4 5 6 7 8 9 10

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

0 1 2 3 4 5 6 7 8 9 10

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?

0 1 2 3 4 5 6 7 8 9 10

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

0 1 2 3 4 5 6 7 8 9 10

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?

0 1 2 3 4 5 6 7 8 9 10

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?

0 1 2 3 4 5 6 7 8 9 10

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?

0 1 2 3 4 5 6 7 8 9 10

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

0 1 2 3 4 5 6 7 8 9 10

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?

0 1 2 3 4 5 6 7 8 9 10

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

0 1 2 3 4 5 6 7 8 9 10

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?

0 1 2 3 4 5 6 7 8 9 10

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?

0 1 2 3 4 5 6 7 8 9 10

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?

0 1 2 3 4 5 6 7 8 9 10

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?

0 1 2 3 4 5 6 7 8 9 10

APPENDIX H

Individual Items for Empathy Subscales and their Reliabilities

APPENDIX H

Individual Items for the Empathy Subscales and their Reliabilities

1. Fantasy Empathy (Items 1, 4, 6, 9, 12, 14, and 18)
   Reliability: .74

   (1) "Some kids like to daydream about what it would be like when they're grownups".

   (4) "Some kids think the people on TV are real and they can understand how those people on TV feel".

   (6) "Some kids treat their dolls or stuffed animals as if they had real feelings".

   (9) "Some kids cry or feel upset during sad movies or books".

   (12) "When parents or teacher tell some kids stories, those kids like to pretend that they are the person or character in that story".

   (14) "When some kids watch a movie, they like to pretend that they're the star of the movie".

   (18) "Some kids would like to switch places with the characters in their favorite movie or book for a day".

2. Empathic Concern (Items 2, 7, 13, 15, and 19)
   Reliability: .70

   (2) "Some kids feel very sorry for their classmates who get in trouble from the teacher".

   (7) "When some kids see someone else get hurt, it makes them sad".

   (13) "When some kids see a person crying, it makes them feel like crying too".

   (15) "Some kids feel sad or worried that other children are sick".

(19) "Some kids try to be nice to other children who get picked on alot at school".

3. Personal Distress (Items 3, 5, 8, 11, 17, and 21)
Reliability: .76

(3) "Some kids get scared when they see another child in trouble who needs help fast".

(5) "Some kids get scared when they see pictures of children in the hospital".

(8) "Some kids would be scared alot if their friend was hurt badly and it was up to them to get help".

(11) "Some kids get afraid if they see someone get hurt".

(17) "When some kids see somebody get hurt, they get all worried and nervous".

(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".

4. Perspective Taking (Items 10, 16, and 20)
Reliability: .72

(10) "When some kids see other people laughing and having fun together, it makes them happy too".

(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 one being teased".

(20) "When some kids have a fight with their friend, they try to understand why their friend is acting the way he/she is".

APPENDIX I

Additional Analyses

APPENDIX I

Additional Analyses

Empathy and Real Self-Image

Forward stepwise regression analyses were conducted, with real self-image and its subscales serving as the independent variables and self-report trait empathy and its subscales serving as the dependent variables. Results revealed that total real self-image accounted for 9% of the variance in total empathy scores ($p<.002$); 10% of the variance in fantasy empathy scores ($p<.002$); and 6% of the variance in perspective taking scores ($p<.02$). In addition, the peer acceptance subscale of real self-image accounted for 4% of the variance in empathic concern scores ($p<.04$) and 4% of the variance in personal distress scores ($p<.05$) (See Table 3 for correlations among these variables).

Regression analyses were also conducted using trait empathy and its subscales as the independent variables and real self-image and its subscales as the dependent variables. Results revealed that total trait empathy accounted for 4% of the variance in the peer acceptance subscale of real self-image ($p<.04$) and 5% of the variance in the physical competence subscale of real self-image ($p<.03$). Additionally, the perspective taking subscale of empathy accounted for 6%

of the variance in both total real self-image ($p<.02$) and in the cognitive competence subscale of real self-image ($p<.02$) (See Table 3 for correlations among these variables).

TABLE 3
Pearson Product-Moment Correlations:
Self-Reported Trait Empathy and Real Self-Image

Trait Empathy	Real Self-Image				
	CC	PA	PC	MA	TOTREAL
EC	.06	.23*	.10	.22*	.22*
FE	.16	.24*	.21*	.28*	.33**
PD	.08	.22*	.19*	.11	.21*
PT	.11	.23*	.20*	.19*	.26**
TOTEMP	.17	.27**	.23*	.23*	.32**

Note: Values are based on a one-tailed test.
*$p<.05$
**$p<.01$

Key

FE-fantasy empathy
EC-empathic concern
ED-empathic distress
PT-perspective taking
TOTEMP-total empathy

CC-cognitive competence
PA-peer acceptance
PC-physical competence
MA-maternal acceptance
TOTREAL-total real s-i

Age and Real Self-Image

Age differences in real self-image alone were investigated. A multivariate analysis of variance was carried out, with real self-image and its subscales serving as the dependent variables and age serving as the independent variable. Significant age effects were revealed for the cognitive competence subscale of real self-image [F

(2,95)=4.8, p<.02]. Age effects for total real self-image approached statistical significance [F (2,95)=2.7, p=.073]. As noted earlier, a post-hoc Tukey test (p<.05) revealed that the seven- and eight-year olds scored significantly higher than the other two age groups. Cell means are shown in Table 2b. The other subscales failed to reach statistical significance.

Age and Ideal Self-Image

Age differences in ideal self-image alone were also investigated. A multivariate analysis of variance was conducted, with ideal self-image and its subscales serving as the dependent variable and age serving as the independent variable. Significant age effects were revealed for the cognitive competence subscale of ideal self-image [F (2,95)=4.0, p<.03] and for the maternal acceptance subscale of ideal self-image [F (2,95)=4.0, p<.03]. As presented earlier, a a post-hoc Tukey test (p<.05) revealed that the seven- to eight-year olds scored significantly higher on these subscales than the other two age groups. Cell means are shown in Table 2a. The other subscales and total ideal self-image failed to reach statistical significance.

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LIST OF REFERENCES

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