EMPATHY, AWARENESS OF INTERPERSONAL RESPONSIBILITY AND CONSIDERATION FOR OTHERS IN YOUNG CHILDREN

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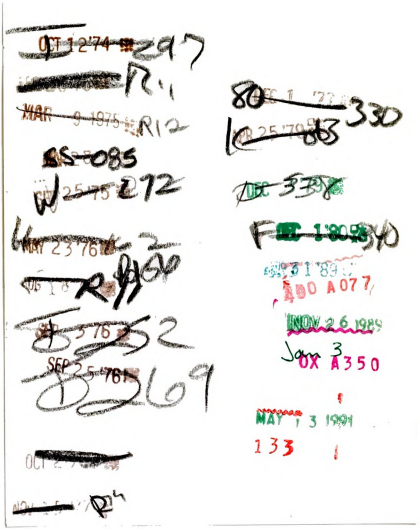
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ABSTRACT

EMPATHY, AWARENESS OF INTERPERSONAL
RESPONSIBILITY AND CONSIDERATION
FOR OTHERS IN YOUNG CHILDREN

By

Esther C. Cohen

This study examined the relationships among empathy, awareness of responsibility for interpersonal consequences and consideration for others. The effects of age, sex, birth-order and family size on these variables were also studied. The subjects were 36 pre-school and 36 second-grade boys and girls.

Empathy measures were obtained from the subjects' verbal reports of their feelings during the presentation of four illustrated short stories, depicting different affective situations, and from judges' ratings of non-verbal affective cues during exposure to the stories. The verbal and non-verbal measures were found to be unrelated and the verbal measure proved to be more reliable.

The Stephens-Delys Reinforcement Contingency Interview (SDRCI) was used to measure awareness of responsibility for interpersonal consequences. Consideration for others was measured by means of teacher-ratings, peer-ratings and a situational test of candy donation for charity. Teacher

and peer ratings were positively related but only teacher ratings related significantly to the number of donated candies.

The hypothesized positive relationship between empathy and consideration for others received some confirmation. Children who donated candies for charity were found to be more empathic (on the verbal measure) than those who did not donate any candy. Boys who were rated by teachers as more considerate were also more empathic. Teacher-ratings, however, correlated negatively with empathy for girls. These results were explained in terms of the differential similarity of situations reflected in the various measures, and the different meaning of empathy in boys and girls.

The hypothesis that consideration for others and awareness of responsibility for interpersonal consequences are positively related received only limited support from the marginally significant correlations between teacher and peer ratings on consideration and "internal" scores of the SDRCI. An emphasis on a prescriptive as compared to a proscriptive value orientation in the "internal" statements did not relate to consideration for others. Possible meanings of awareness of "internal" control of interpersonal consequences in young children were discussed in an attempt to explain the data.

The results supported the hypothesis that empathy increases with age, and suggested that the processes involved in this increase have to do with the development of role-taking abilities and the reduction in defensive anxiety with age. As expected, females were found to be more empathic than males. Also, awareness of responsibility for interpersonal consequences increased with age, as hypothesized. While birth-order did not relate to the other variables, family size correlated, as expected, with empathy (verbal measure), awareness of interpersonal responsibility, candy donation and teacher-ratings of consideration for others.

Implications of the results were discussed and further research ideas were suggested.

EMPATHY, AWARENESS OF INTERPERSONAL RESPONSIBILITY AND CONSIDERATION FOR OTHERS IN YOUNG CHILDREN

By

Esther C. Cohen

A DISSERTATION

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INTRODUCTION

This study is an attempt to examine the relationships among empathy, awareness of control of interpersonal consequences and consideration for others in two groups of children: preschoolers and second graders.

The emphasis in theory and research on moral development has traditionally been on the internalization of moral prohibitions, and the study of the development of altruism and consideration for others has been generally neglected until recently (Hoffman, 1970). A great part of the recent research on the development of altruistic behaviors has tried to demonstrate the process of acquisition of altruistic acts through observational learning and imitation (Rosenhan and White, 1967; Hartup and Coates, 1967; Bryan and London, 1970). However, Krebs (1970) pointed out that these studies have not demonstrated long-term effects of modeling or generalizations to other situations.

Studies examining other motivational and developmental factors associated with the performance of considerate behaviors in children are rather scarce. This study is therefore designed to pursue some of the theorizing and available data suggesting that the emotional experience of empathy and one's awareness of his control of, and responsibility for, the

interpersonal consequences of his behavior would be related to the motivation to behave in a considerate manner toward others (Aronfreed and Paskal, 1966; Hoffman, 1963, 1970; Feshbach and Feshbach, 1969).

More specifically, this study attempts to measure separately and then relate individual differences in children in (a) the tendency to share the feelings of others, (b) the extent of awareness that one's behavior effects interpersonal reinforcement, and (c) behavior reflecting consideration for others. Developmental changes in those variables and their interrelations, and sex and family structure variables are also examined.

The significance of the study lies in its contribution to the understanding of the development of pro-social interpersonal behaviors through emotional and cognitive processes relating to awareness of others. The hypothesized relationship among empathy, awareness of interpersonal consequences and consideration for others also has important implications for parental socialization techniques, especially for the importance of parental practices which capitalize on the child's capacity for empathy and on his awareness of responsibility for interpersonal consequences.

Following is a discussion of the variables that are of major interest in this study, i.e., empathy, awareness of control of interpersonal consequences and consideration for others, and the interrelations among them.

Empathy

The significance of children's capacity for empathy as an important factor in the process of socialization has long been neglected in the child development research literature (Ferguson, 1970; Hoffman, 1970; Reif and Stollak, 1972). While research in empathy has steadily increased since about 1950, most of the studies have concentrated on the importance of empathy as a characteristic of the therapist in helping-relationships with adult clients (Truax and Charkhuff, 1967; Fiedler, 1953; Cartwright and Lerner, 1963). Some attempts have also been made to investigate empathy in adult-child and family interaction (Guerney, Stover and Demeritt, 1968; Stover, Guerney and O'Connell, 1971). Relatively little research on the development of empathy in children has been reported. There is, however, some theorizing and evidence to propose that the child or even the infant is sensitive to the feelings of others and is capable of empathy at a fairly young age (Murphy, 1937; Sullivan, 1953; Simner, 1971; Borke, 1971). Furthermore, individual differences in empathy seem to exist between young children and also differences within the same individual depending on the characteristics of the person being observed, the perceived affect and the similarity of the situation to the child's past experiences (Murphy, 1937; Feshbach and Roe, 1968; Feshbach and Feshbach, 1969; Stotland, Sherman and Shaver, 1971).

Since the conceptualization of empathy is rather difficult and elusive (Guerney, Stover and Demeritt, 1968), the term has been used by researchers in many different ways. Dymond (1948, 1949, 1950) has discussed in detail the different meanings and operational definitions attached to the concept and its relationship to other concepts such as insight, identification and projection.

The growing body of findings related to the measurement of empathy in adults has led many researchers to argue that empathic prediction ability assessed by means of a predictive test in which a rater has to answer personality items in the way in which he would expect the ratee to answer them (Dymond, 1950) is very different from empathic interaction, assessed through structured or unstructured observation of interpersonal interaction (Guerney, Stover and Demeritt, 1968; Linden and Stollak, 1969). Similarly, attempts to measure empathy in children by means of verbal reports of reactions to slide-sequence stories indicate that social comprehension and empathy are not identical concepts (Feshbach and Roe, 1968; Feshbach and Feshbach, 1969). It therefore seems necessary to distinguish between the common usage of the concept as an ability, on the cognitive level, to understand another person's feelings and predict his behavior (Dymond, 1949, 1950; Milgram, 1960) and the second usage, which conceives of empathy as a vicarious emotional response of a perceiver to the emotional

experience of another person (Feshbach and Feshbach, 1969; Stotland, 1969). This second usage of empathy as the sharing of another's emotional experience is the one of major interest in this study.

It should be noted that the latter usage of the term "empathy" does not require the verbal communication of empathy to the individual whose feelings are shared by the observer. Reif and Stollak (1972) point to the importance of this communication, by an adult observer to a child, for the increased awareness in the child of his own feelings, greater self-confidence and greater interpersonal skills. In the present study, childrens' emotional empathic reactions are studied. The extent to which these reactions are associated with behaviors reflecting consideration for others (including communication of the empathic feelings) is one of the issues to which the study addresses itself.

The notion that people share other people's feelings is intuitively reasonable and can be evidenced in everyday life: friends share each other's elation and distress, mother and child share each other's surprise and disappointment and people "feel with" fictional characters in books and movies. The processes which are involved in empathy, however, are not clear (Ferguson, 1970; Stotland, Sherman and Shaver, 1971).

Feshbach and Roe (1968) suggest on the basis of their findings that while social comprehension of another person's

feelings may be a prerequisite for an empathic emotional response it does not always result in such a response. Murphy's (1937) observations of nursery school children further demonstrate that some children respond to accurately perceived feelings of another child with such unsympathetic responses as ridicule and criticism. Similarly, adults will at times respond to perceived feelings of others with sadistic enjoyment, jealousy or indifference. On the other hand, Murphy (1937) observes that seemingly empathic reactions of the very young child to the feelings of another child often reflect the projection of the observer's own fears and anxieties, rather than a true empathic response based on understanding of the other child's feelings. This kind of emotional experience can be observed in many children below the age of three, who cannot yet successfully differentiate between self and other, and also in older, highly fearful and imaginative children.

According to Feshbach and her collaborators, then, an empathic emotional reaction to another person's feelings reflects comprehension of the emotional experience of the observed person and motivation to identify with that individual and to experience the perceived emotion.

In contrast to Feshbach and Feshbach (1969), Stotland, Sherman and Shaver (1971) maintain that the extent of accuracy of the perception of the other's emotions is a secondary matter in empathy, and what is important is that the observer

will react to the other's experience as he perceives it. The implication of this position is that both developmentally or even in a given situation the cognitive aspect does not necessarily precede the emotional aspect in the empathic experience. In fact, it is reasonable to argue that social comprehension and empathy interact. Sharing the perceived emotional experience of another can be a motivating factor to seek the cause of the emotion, or to draw on one's own past experiences in order to better understand the other person's situation. The elevated level of comprehension achieved this way may in turn influence the strength of the perceived and experienced emotion (Stotland, Sherman and Shaver, 1971).

It may further be argued that developmentally the "spontaneous" sensitivity of the infant and the young child to the emotional expressions of others (Murphy, 1937; Sullivan, 1953) is a motivational factor in the development of social comprehension and role-taking ability. The process of "role-taking," by which an individual puts himself imaginatively or symbolically in another's place, or the ability to "decenter," i.e. to shift from one aspect of a situation to another, have been considered to be important mechanisms in the development of social comprehension and moral judgment (Mead, 1934; Stotland, Sherman and Shaver, 1971; Piaget, 1926, 1954; Flavell, 1970).

Piaget (1926, 1954) has emphasized the basic egocentrism of the pre-operational child, his inability to decenter

and his insensitivity to the cognitive and motivational experiences of others. Piaget maintains that only as the child grows older, and with cognitive development, does he become both more sensitive to the existence of covert, perceptual, cognitive and motivational processes in other people, and more accurate in his identification and interpretation of these processes (Flavell, 1970). Data from a number of studies (Flavell, 1968; Peffer and Gourevitch, 1960) further demonstrate the increase in the child's accuracy in interpreting other's covert processes during middle childhood and adolescence.

Murphy (1937), however, has disagreed with this view of the pre-school child, and on the basis of her careful observations of social interactions of nursery school children argued that ". . . it is not true that the child under four is an overwhelmingly self-centered person. . . ."

This controversy on the extent of egocentricity of the young child has been revived lately in the literature, following reports presenting evidence that children as young as three years of age can differentiate between happy and unhappy feelings in other people (Borke, 1971, 1973). Chandler and Greenspan (1972) have reacted to Borke's findings by presenting data which emphasize the persistence of errors in the process of social decentration well into middle childhood, despite the children's (ages 6 to 12 years old) apparent skills in accurately predicting the affective responses of others.

It seems that one may conclude, at this stage of our knowledge, that the young child appears to be both egocentric and capable of empathic awareness, depending on the cognitive and conceptual complexity involved in his reaction to a situation. Thus, although he might well not be capable of "perspectivistic" thinking, as measured by tasks developed in the Cognitive-Developmental tradition, until adolescence, the process of development of empathic awareness may be a continuous one, beginning with the sensitivity of the young child to perceived feelings of others.

In this study it is expected that preschool children will demonstrate accurate empathic responses to the emotional experience of others. The development of empathy from age four to age seven (the age at which transition into the operational stage of cognitive development occurs, according to Piaget) will be examined. An increase in empathy from age four to seven is expected due to the decrease in the child's egocentrism and the increase in his social comprehension and communication skills.

Previous studies have reported females to be more empathic than males (Feshbach and Roe, 1968), and later borns to be more empathic than first borns (Stotland and Dunn, 1963). These differences may also be expected in view of the different socialization expectations and experiences of males and females and first and later borns.

Since females are socialized to be aware of and display more feelings than males, and since they are found

to derive more satisfaction from interpersonal interactions in comparison to males (Garai and Scheinfeld, 1968), females may also be expected to share more often emotional experiences of others.

Later borns are exposed from birth to the affective situations of their siblings. These situations often affect them as well. They therefore may be expected to develop a greater sensitivity to the emotional experiences of others than first borns.

Children from larger families may similarly be expected to be more empathic than children from smaller families, because of the greater availability of opportunities to observe affective situations of similar others.

Empathy and Consideration for Others

The variables influencing individual differences in empathy in children are, however, only of secondary importance in this study. The behavioral correlates of empathy in children are considered of major interest.

Perceiving and sharing the emotional experience of another individual may be a motivating factor for acting in ways considerate of the perceived situation of that individual, i.e. sharing another's feelings of distress will tend to elicit some action to help relieve the distress.

Berger (1962) points out that empathy does not necessarily lead to active intervention in an observed situation (and may, in fact, lead to avoidance of the other

individual if the empathy leads one to experience negative feelings). Nevertheless, there is evidence that demonstrates that empathy can provide the basis of altruistic behavior, or at least behavior that reflects consideration for others through impulse-control of destructive behaviors.

Feshbach and Feshbach (1969) have hypothesized that observation of the consequences of an aggressive act should tend to elicit distress feelings in an empathic observer and thus help inhibit one's aggressive tendencies. Their hypothesis was partially confirmed in their study. They found that in the group of six- and seven-year-old boys, those who were high in empathy were significantly less aggressive than low empathy boys. The converse relationship held for the four- and five-year-old boys. This contrasting relationship between empathy and aggression at the two age levels was considered to reflect a developmental change in the role of social aggression. Lack of any similar significant relationship between empathy and aggression in girls was considered to be consistent with the data reflecting differential correlates, as well as the different meaning of aggression and empathy in boys and girls.

In addition to its role in inhibiting anti-social acts, empathy may be seen as an important variable in motivating pro-social prescriptive behaviors. In a laboratory study, Aronfreed and Paskal (1966) tried to demonstrate

the role of empathy in producing "sympathetic" helping responses to another person's distress. They argued that the child himself must experience direct distress in close association with another person's distress in order for the child's empathic distress to be conditioned to cues from distressed others. Then the child must acquire specific overt acts which can relieve the distress of the other person as well as his own distress. Their major findings, using seven- to eight-year-old girls, tend to support their theorizing, although some criticisms of their highly artificial design and problems of interpretation of their results have been raised (Hoffman, 1970).

It could be speculated that the emotional experience of empathizing with someone in distress should tend both to inhibit acts that produce distress for others and to motivate helping behavior. Further, the emotional experience of empathizing with someone who is experiencing a positive affect, like joy, pride and excitement, should be a powerful emotional resource in motivating such pro-social altruistic behaviors as sharing, cooperating and giving to charity.

Aronfreed and Paskal (1965) have formulated a similar idea within a learning-theory framework. They maintain, on the basis of their data, that altruistic, "self-sacrificing" behavior (operationalized in the study as the choice to forego the candy-producing alternative in order

to press a light-producing lever that seems to please the experimenter) can be enhanced by contiguous association of positive affect in the child with expressions of joy in the receiver. The receiver's expressions of joy seem to acquire the power to reinforce altruistic acts (in six- to eight-year-old girls) by becoming stimuli for the arousal of positive affect in the child.

Although the extent to which the mechanisms proposed by Aronfreed and Paskal (1965, 1968) generalize beyond a specific situation or become internalized is unknown, their experiment demonstrates the importance of vicarious emotional responses to another person's feelings in motivating behavior.

Aderman and Berkowitz (1969) hypothesized that empathic experiences involving either positive or negative affect in others may mediate altruism. In an experiment with college students they demonstrated that sharing the distress feelings of someone in need of help or sharing the pleasurable experience of a helping model (measured by the subjects' self-ratings on a Mood Questionnaire after listening to taped conversations) tended to increase the motivation to act altruistically (which involved scoring data pages as a favor to the experimenter).

Hoffman (1963) concluded on the basis of his study of preschool children and their parents that the kind of parental discipline which capitalizes on the child's capacity for empathy ("other oriented induction in a

non-power assertive context") leads to active consideration for others on the part of the child. Parental discipline which capitalizes on the child's need for approval ("love withdrawal"), on the other hand, leads to his greater impulse control.

Empathy thus appears to be, if not the only, at least a major resource for motivating pro-social behaviors.

Awareness of Control of Interpersonal Consequences

It seems that at least one necessary prerequisite for empathy to be translated into actual considerate behavior is that the child be aware of himself as an agent whose behavior can affect others, both in positive and negative ways. This awareness involves the ability to perceive the interpersonal consequences of one's actual behavior (e.g. "he is crying because I pushed and hurt him," "she is happy because I gave her some candy") as well as the potential effects of possible behavior ("if I go over and hug him he is going to feel better"). Awareness of responsibility for interpersonal consequences is tied in further with awareness of responsibility for personal consequences ("I feel good because I made mother be pleased with me").

Hoffman (1970) proposes that if the young child is not made aware of his responsibility for someone's distress, the child might react empathically to the other person's feelings but dissociate himself from the causal

act. This is not because the young child is incapable of awareness of his responsibility for another person's distress, but rather because his cognitive processes are highly susceptible to the disruptive effects of the frustration and emotional involvement that led to his deviant act.

Hoffman (1963, 1970) considers the major aspect of parental discipline which employs other-directed inductions, in a non-power assertive context, to be the communication of the child's responsibility for the interpersonal consequences of his behavior, while enlisting his capability for empathy. This combination of an empathic experience with an awareness of the interpersonal consequences of one's behavior explains, according to Hoffman, the significant relationship, obtained in his study, between consideration for others in preschool children and parental use of other-oriented inductions.

While the emphasis in Hoffman's discussion is on the child's awareness of his responsibility for the consequences of acts that he has performed, the idea of awareness of responsibility for interpersonal consequences can be extended to include the awareness of consequences of possible acts that one could perform to affect the situation of others. Without this awareness the child may cry in response to someone's distress or stare anxiously, without realizing that he may be able to do something to change the situation.

Some support for the notion that awareness of being responsible for what happens to others enhances altruistic behaviors is found in studies where responsibility is explicitly assigned to the child by an authority figure. Staub (1970) found a significant increase in helping behavior (in a laboratory situation) when the child was explicitly assigned responsibility for another younger child by the experimenter. Whiting and Whiting (1969) found in a cross-cultural study that children in cultures in which mothers tend to assign responsibilities to their children are more altruistic.

Assignment of responsibility to the self for the acts that affect others seems to be related to the individual's tendency to assign responsibility to himself for what happens to him. This dimension, usually termed "expectancy for internal control of reinforcement" or "internal locus of control" (Rotter, 1966), has stimulated much recent research and has proven to be a very important and useful personality dimension in predicting many different cognitive and social behaviors (Joe, 1971; Rotter, 1966; Lefcourt, 1966, 1971). The association between the expectancy for internal control of reinforcements and awareness of responsibility for interpersonal consequences is perhaps especially strong in young children because of their dependence on reinforcements from significant others in the form of attention and approval (Stephens and Delys, 1973). Thus,

the locus of control measure for preschool children, developed by Stephens and Delys (1973), employs as items reflecting personal reinforcements to the child affects shown by significant others like parents and friends.

While data on correlates of I-E control in preschool children are rather scarce, findings from studies with adults (mostly college students) suggest the relevance of internal locus of control to consideration for others. Adult individuals who believe in internal locus of control, compared to those who believe in external locus of control, have been found to report greater readiness to take action to confront their difficulties and control their environment (Joe, 1971). They have been found to be more effective and independent (Hersch and Scheibe, 1967; Lefcourt, 1971), less anxious (Watson, 1967; Feather, 1967) and better able to control their impulses (James, Woodruff and Werner, 1965). Adult members of minority groups who score as more internal also appear to become more involved in pro-social action programs (Gore and Rotter, 1963; Strickland, 1965) and internal white college students have been found to be more likely to donate blood than externals (Cohen, 1972).

Thus, we would expect that belief in internal control of reinforcement be associated with a tendency to actively influence reinforcements. There is evidence to suggest that this tendency applies both to personal and interpersonal consequences. Lenrow (1965) found in a study with nursery

school children that action to overcome a barrier in the path of another person (measured in helping a puppet in a puppet show) is significantly related to a disposition to persist actively in trying to overcome barriers in one's own path (as assessed by observations in a nursery school setting).

We would therefore expect children who are more aware of their own control of interpersonal consequences to show consideration toward peers more often than those who are less aware of their control of interpersonal consequences. An increase with age in this awareness, due to the increase in the child's social experiences and social skills, is expected. Children from larger families are expected to be more aware of interpersonal consequences than only children because of their greater interpersonal experiences with siblings.

The concept of awareness of the interpersonal consequences of one's actions may be further examined along the dimension of proscriptive versus prescriptive value orientation (McKinney, 1971). We may expect some children to be more aware of their responsibility for acts that should not be done and others to be more aware of things they should do. Olejnik and McKinney (1973) found that a prescriptive emphasis in parental discipline (emphasizing what the child should do) was positively and significantly related to generosity (donating candies to a "needy" child) in preschool children.

It is therefore hypothesized that children who are more aware of prescriptions tend to be more "actively" altruistic and show more helpful, generous behaviors toward their peers. Children who are more aware of proscription show more inhibition of aggressive or destructive behaviors in the group setting.

Consideration for Others

The concept "consideration for others" (Hoffman, 1963, 1970; Hoffman and Saltzstein, 1967) is used in this study in its broadest sense. It refers to interpersonal social interactions reflecting self-denial which is clearly in the service of another's welfare. Two aspects of the concept are examined:

(A) "active consideration"--behaviors which involve voluntarily going out of one's way to help others or make them happy. These behaviors have been referred to in the literature under the general concept of "altruism" (Krebs, 1970; Mussen, Rutherford, Harris and Keasy, 1970; Bryan and London, 1970), "pro-social behavior" (Rosenhan and White, 1967), or "sympathy" (Murphy, 1937). Some researchers have used more specific concepts such as "charity" (Mildarsky and Bryan, 1967), "sharing" (Handlon and Gross, 1959; Fischer, 1963; Staub and Sherk, 1970) and "generosity" (Rutherford and Mussen, 1968; Olejnik and McKinney, 1973).

Most of these concepts have been operationally defined as the number of candies that a child is willing to forego or donate to another "needy" child.

Some researchers have used field observations of children in groups (Murphy, 1937; Hoffman, 1963) or peer-nomination (Hoffman and Saltzstein, 1967; Mussen, et al., 1970).

(B) "passive consideration"--behaviors which reflect the inhibition of aggressive or destructive social behaviors. This measure is in fact a measure of aggressive behavior; the less aggressive the child, the more passively considerate.

The reason for conceptualizing aggressive behaviors as constituting an aspect of consideration for others is to allow us to combine the measure of "active" and "passive" consideration for others.

Murphy (1937) found a correlation of 0.40 between sympathetic and aggressive behaviors in nursery school children. This implies that a child may be high in "active consideration for others" and low in "passive consideration." In this study we will consider this child to be, in general, less considerate than the child who is high on <u>both</u> measures of consideration for others, i.e. goes out of his way to help others and avoids harming others.

Aggressive behavior in children has been assessed in many ways including direct observation and behavior

sampling (Feshbach, 1967), interviews with school teachers (Kagan, 1956), peer nominations and related sociometric devices (Lesser, 1959; Wiggins and Winder, 1961), projective tests (Feshbach, 1955; Koppitz, 1966) and situational tests of aggression (Bandura, Ross and Ross, 1961).

The extent to which moral development is a unitary process is still an open empirical question at this point of our knowledge. Studies have shown both specificity and generality in moral behavior (Hartshome and May, 1928-1930; Sears, Rau and Alpert, 1965). It seems therefore worthwhile to use more than one measure of "consideration for others" in this study. Hoffman (1970) proposes that behavior generality and dynamic consistency increase with age, especially after age four or five, when cognitive mediation helps the child make generalizations on the basis of conceptual similarities. The older child also has better social skills to act upon his perceptions and feelings. Higher correlations between the different variables investigated in this study are, therefore, expected for second-graders as compared to preschool children.

To summarize, the main purposes of this study are: (a) to examine the relationships among empathy, awareness of control of interpersonal consequences and consideration for others; (b) to examine the development of empathy, awareness of control of interpersonal consequences and consideration for others and their interrelations from ages

four and five to ages seven and eight; and (c) to examine sex, family size and ordinal position differences in empathy, awareness of interpersonal consequences and consideration for others.

The specific hypotheses to be tested are:

1. Children who are more empathic show more consideration for others than those who are less empathic.

2. Children who are more aware of their own control of interpersonal consequences show more consideration for others than children who are less aware of their own control of interpersonal consequences.

3. Children who are more aware of their responsibility for proscriptive behaviors tend to show more passive consideration for others, while children who are more aware of prescription tend to be more actively considerate.

4. Second-graders are more empathic than preschool children.

5. Second-graders are more aware of their own control of interpersonal consequences than preschool children.

6. Higher correlations between empathy, awareness of interpersonal consequences and consideration for others are expected for second-graders as compared to preschoolers.

7. Females are more empathic than males, later borns more empathic than only children or first borns, and children from larger families are more empathic than children from small families.

8. Children from large families are more aware of their own control of interpersonal consequences than children from small families.

METHOD

Subjects

The subjects in the study were 36 preschool children and 36 second-grade children. The subjects in each age group were equally divided as to sex. The average age of the preschoolers was 56 months, ranging from 48 to 67 months. The average age of the second-graders was 92.5 months, ranging from 84 to 101 months.

The sample of the younger age group was drawn from the three preschool units of the Day Care Center program sponsored by the Association of Married Students at Michigan State University. The sample of the older age group was drawn from the three second-grade classrooms at the Spartan Village Elementary School in East Lansing, Michigan. Both institutions are located in the same school district in a college community. At least one of the parents in each of the subjects' families was a student at Michigan State University. Nearly all the families lived in the married students housing provided by the University. Fifteen per cent of the children in the total sample were of minority families.

Approval for the entire study was obtained from the proper authorities of each of the institutions concerned. In addition, letters were sent to the parents of each prospective subject seeking permission to use their child

as a subject in the study. The text of the letter appears in Appendix A.

At the Day Care Center, only children above 48 months of age and whose native tongue was English were chosen as prospective subjects. Children of this age were considered old enough to respond to the instruments used in the study. Only two parents of these younger children refused to allow their children to participate in the study. In order to obtain the required number of boys and girls in this group, two boys and three girls were randomly omitted from the pool of subjects. The same general procedure was followed for the older age group subjects, in which case there were no refusals from parents. Thus, it was necessary to randomly omit four boys and two girls in order to obtain the required number of older boys and girls.

Instruments

In this study an attempt was made to measure the following major variables in preschool and second-grade children: empathy, awareness of responsibility for interpersonal consequences and consideration for others. Following is a description and discussion of the instruments used.

Empathy

Empathy was defined as a vicarious emotional and cognitive experience, and therefore was a difficult variable to measure. The child's verbal report about how he

feels when presented with stories portraying affective situations of another child was used successfully as a measure of empathy by Feshbach and Roe (1968) and Feshbach and Feshbach (1969). However, careful analysis of their data reveals that the child's verbal report may be influenced by a social desirability factor. Thus, boys, as compared to girls, were found to be less specific when reporting possible fearful feelings, probably because they were reluctant to describe themselves as being afraid. Therefore, in this study, it was decided to use ratings of the subject's non-verbal cues in addition to his verbal reports. Although non-verbal cues have not yet been used systematically in measuring empathy in children, they have been successfully used in studies of communication of various affects in adults (Ekman, Friesen and Ellsworth, 1972). The ratings of the non-verbal affective cues were expected to provide information which would not necessarily be congruent with the child's verbal report.

The materials and procedure developed for eliciting and measuring empathy were similar to the ones used by Feshbach and Roe (1968) and Feshbach and Feshbach (1969). They were four recorded short stories. Each story was accompanied by four illustrations which were projected on a screen using a film-strip projector. The presentation time of each of the four stories was between 54 seconds and 63 seconds.

Each story described an incident involving a young child. Rather than portraying four different affective situations as in Feshbach and Feshbach (1969), only two more general affective situations were depicted. This was done to facilitate the subjects' verbal reports and the scoring of the non-verbal cues. In two of the stories the incidents described were sad and unpleasant and were intended to elicit negative affects. The other two stories were happy and pleasant and were designed to elicit positive affects. One female and one male were the stimulus figures in the two stories depicting each of the affective situations. The male stimulus figure stories were narrated by a male, and the female stimulus stories were narrated by a female.

Each subject was thus presented with four stories which will be referred to as S/G (sad, with girl stimulus figure); S/B (sad, with boy stimulus figure); H/G (happy, with girl stimulus figure); and H/B (happy, with boy stimulus figure).

An attempt was made to write the stories in a way that would be comprehensible to children as young as four years of age, and interesting for children eight years old. The text of the stories and their accompanying illustrations are presented in Appendix B.

The stories were recorded on audio-tape twice and the illustrations appeared on the film-strip twice. This was done to aid the changing of the presentation sequences

of the stories for each subject. Four different story sequences were used:

1. S/G, S/B, H/G, H/B
2. S/B, H/G, H/B, S/G
3. H/G, H/B, S/G, S/B
4. H/B, S/G, S/B, H/G

Each sequence was repeated nine times in each of the age groups. The subjects were brought into the experiment room in a random order so that the assigning of each subject to a particular sequence was not predetermined.

The stories were recorded on one track of the tape, while a white noise was simultaneously recorded on the other track. High frequency tones were inserted in the white noise at three predetermined points in the stories. These tones were introduced at points where emotional climax was expected. These points are indicated in Appendix B. The tones were used by the raters of the non-verbal affects as cues when to make their recordings.

Each subject was brought into the experiment room and was seated on a chair facing the door. A white screen was placed on the bottom half of the door. The top half of the door was a one-way mirror. The experimenter sat behind the subject to his right, so as to be able to operate the tape-recorder and film-strip projector, which were placed on a small table behind the subject. The subject was unable to see the experimenter while facing the screen.

The subject was told that he would hear several stories and see pictures on the screen. The experimenter then started the tape-recorder and turned on the film-strip projector, thereby exposing the first illustration on the screen. The film-strip was advanced to the other illustrations at their respective points in the stories. When the story was terminated the tape-recorder and film-strip projector were shut off.

The subject was then asked the following question: "How did the girl/boy in the story feel?" The subject's response was recorded verbatim; then he was asked: "Why?" "How did the story make you feel?" and "Why?" In a few cases some probing was necessary to elicit or clarify a response, especially for the third question. The probing statement used was: "Sometimes we feel happy, sometimes we feel sad, and sometimes we don't feel anything. How did you feel?" A response of "I don't know" was accepted only to the fourth question. The first three questions required specific responses, which were obtained without difficulty.

After the subject entered the room, two raters took their positions outside the room behind the one-way mirror. The raters could see the subject, and the subject was unaware of the raters' presence. Each rater put on a pair of headphones which were connected to the tape-recorder. They could only hear the white noise and tones, however, whereas the subject could only hear the stories. When a tone was heard, the raters marked their rating sheets concerning the affects displayed by the subject at that moment.

The rating scales used by the raters were developed after pretesting and are presented in Appendix C. The raters were trained in judging non-verbal affects by conducting pretests with 15 children and comparing and discussing the results. Since rating specific degrees of emotion displayed by children in the pretest was found to be highly difficult and unreliable, it was decided that the raters would only indicate whether the child displayed a positive or negative affect. The raters were instructed to use the category "indifferent-undetermined" only when it was impossible to characterize the expression as reflecting either a positive or a negative affect. In addition, the raters indicated whether the child seemed interested or disinterested in the story. This was done to check on the extent of interest aroused by the stories. The raters were unfamiliar with the subjects' scores on the other variables measured.

The verbal responses to the third question, "How did the story make you feel?" were scored for empathy in the following manner. The subject received a score of "1" for each match of the feelings reflected in a response and the affective situation observed. An indication of positive or negative feelings was considered an adequate match for the happy and sad stories, respectively. The specific words used by the subjects in describing their feelings were considered to be of secondary importance. For example, a response of "I feel bad" was considered an empathic response

to a sad story. Thus, the total empathy score based on the subject's verbal report could range from zero to four, by summing across the four stories.

The first two questions ("How did the boy/girl in the story feel?" and "Why?") were asked to insure that all the subjects understood the stories and the feeling of the central figure in each one. In order to gain additional information about the subject's emotional reaction to the story, he was asked to explain why he felt the way he did. Based on the responses to this last question, several response categories were differentiated.

The second measure of empathy was scored on the basis of the ratings of the non-verbal affective cues exhibited by the subjects during the presentation of the stories. The ratings were scored for empathy in a similar way to the verbal responses. A match of the affect indicated by the subject's non-verbal cues and the affective situation of the story was scored as "empathy." If the subject was perceived in the ratings as indifferent or as exhibiting different affect from that expected to be elicited by the story, his reaction was judged to be non-empathic. An empathic response was scored as "1" and a non-empathic response as zero. Since reaction to each story was rated at three points during its presentation, the range of "non-verbal empathy" scores across the four stories could range from 0 to 12. The scores of both

raters were then combined to give a more stable measure, thus yielding a range of scores from 0 to 24.

Awareness of Responsibility for Interpersonal Consequences

The Stephens-Delys Reinforcement Contingency Interview--SDRCI--(Stephens and Delys, 1973) was used in the study as a measure of awareness of responsibility for interpersonal consequences. This instrument is a projective technique designed to assess locus of control expectancies of preschool age and older children. More specifically, it appears to measure the extent to which the child is aware of himself and of his actions as having consequences for significant others and for himself, or the extent to which he tends to attribute responsibility for personal and interpersonal consequences to someone else's behavior or to some other event. An examination of the intercorrelation of items with the total score, reported by the authors, indicates that a score on the SDRCI reflects mainly an awareness of responsibility of interpersonal consequences (rather than personal consequences).

The instrument consists of four subsets of ten questions each. The subsets deal with four variations of positive and negative consequences. Each set of ten stories includes items concerning five different reinforcement agents: self, peers, mother, father and teacher. For each agent, one item reflects positive reinforcement and one

reflects negative reinforcement. The instrument is presented in Appendix D.

Four interviewers conducted the interviews after being trained in creating rapport with young children and administering the SDRCI. The instructions for the administration and scoring of the interview followed closely those suggested by Stephens and Delys (1973). The administration instructions and scoring procedures are presented in Appendix E.

The subjects' responses were scored by two raters independently on the internal locus of control dimension. Each subject's score could range from 0 to 40.

The items scored as "internal" were then scored as being either prescriptive or proscriptive (emphasizing behaviors that should be done versus behaviors that must not be done). Responses which did not lend themselves to either category were scored as being "irrelevant." Since the percentage of prescriptive responses depended on the number of "internal" responses given by each subject, a correction was made for each subject's score by computing the percentage of his prescriptive responses out of the total number of "relevant" internal responses given. The obtained ratio could range from zero to unity.

Consideration for Others

Three different procedures were used to measure the subjects' degree of consideration for others:

teacher ratings, peer ratings and a situational test of candy donation for charity.

Teacher ratings.--The cooperation of the six head teachers in the six classrooms from which the subjects were drawn was obtained. A special forced-distribution technique, similar to the one used by Sears and Sherman (1964), was used. This was done for two reasons. First, the fact that the number of subjects drawn from each classroom was different, and second, because of the danger that each teacher might use different subjective evaluation criteria.

Each teacher was instructed to divide the subjects in her class into four groups, placing about 20 per cent of the subjects in the low consideration for others group, 20 per cent in the high group, and 30 per cent each in the medium-low and in the medium-high groups. These percentages were used in order to approximate a normal distribution. The teachers were also instructed to rate boys and girls separately, because of the different frequency at which the rated social behaviors are exhibited by both sexes, as indicated by Feshbach and Feshbach (1969). In order to allow for a better approximation of a normal distribution, the names of three girls of one class were randomly chosen from the rest of that class and added to the list of female subjects from this class. Also, in another class, the names of one male and one female were added in a similar manner to the list of subjects from that class.

Each teacher received the rating instructions, a list and a deck of cards with the names of all the subjects to be rated, one name per card. Each teacher did the rating twice: first, on the dimension of "active consideration for others"; and second, on the dimension of "passive consideration for others." The latter dimension was labeled on the rating sheets as "anti-social behaviors" to make it more clear. The behaviors given as criteria for the ratings were constructed on the basis of Murphy's (1937) Social Behavior Scale, field observations and consultation with teachers. A copy of the rating instructions and instrument are presented in Appendix F.

Each subject's ratings could range from one to four on "active consideration for others" (four being most considerate), and one to four on "passive consideration for others" (four being most considerate and least aggressive). The total consideration for others score for each subject could range from two to eight.

Peer Ratings.--Each subject rated all the other subjects in his class. The same basic rating procedure used with the teachers was used to obtain the peer ratings. The ratings of each subject were obtained and recorded in an individual interview. Photographs of all the subjects (and the five additional children who were added to the list of ratees), which were taken before the start of the study, were used as an aid in the rating procedure.

Each subject was presented, separately, with pictures of all the male subjects from his class and all the female subjects from his class. The subject was asked to identify the names of the photographed children. When necessary, the subject was reminded of the name of the child. He was then asked to name his best male friend and his best female friend from the photographed children.

In order to obtain the ratings on "active consideration for others," a similar but shorter and simplified description of behaviors fitting each of the four categories given to the teachers was also given to the subjects. Also, the subject was told the required number of children in each category.

The photographs of the group to be rated were put on the table in a random order. Boys and girls were rated as separate groups. Boys rated boys first and girls rated girls first. The subject was then asked to point out the required number of children who "always help others, like to do nice things for others, share their things and care if someone is hurt." After the subject pointed at the required number of ratees, the chosen photographs were removed from the table. The chosen subjects were assigned a score of four. The subject was then asked to show the required number of children who "almost never help others, share their things, like to do things for others or care when someone is hurt." The ratees chosen by the subjects were assigned

a score of one. The same procedure was repeated asking the subject to choose the children who "usually don't but sometimes do" exhibit the mentioned behaviors, and the children who "many times do but not always" exhibit the behaviors. The descriptions of the behaviors were repeated with each rating and some changes in the wording were allowed.

The exact procedure described for obtaining the ratings of "active consideration for others" was then repeated with each subject in order to obtain ratings of "passive consideration for others." The subjects were asked to point out the children who "never," "always," "only sometimes" and "many times" exhibit the behaviors of pushing, kicking, and hitting other children; taking away their things and making fun of other children.

The order of presentation of the categories was changed for each subject to control for the effects of order. Some subjects hesitated to categorize anyone as "inconsiderate," and were encouraged to think about the rating only as relative to the other children.

Since the number of raters in each classroom was different, the scores computed for each subject were the average of the ratings he received from his peers. The resulting scores ranged from one to four on "active consideration for others," one to four on "passive consideration for others" and two to eight on total consideration for others. The procedure also allowed obtaining the average

score given by female raters and by male raters to each subject, as well as the average score given to him by those who consider him as their best friend.

Candy donation.--The number of M & M candies a subject was prepared to give for charity was used as a situational measure of the subject's consideration for others. These candies were used since it was previously found that children's preferences for such M & M candies were not affected by age and sex (from kindergarten to fourth grade) and were unrelated to donation behavior (Witryol, 1971; Mildarsky and Bryan, 1967).

Each subject was brought to the experimental room individually. Eighteen candies were poured on the table from a plastic bag and the experimenter said: "I am going to give you all these M & M candies. I hope you like them." She then placed a "charity box" in front of the subject. It was an empty metal box covered with white paper with a picture of a miserable looking boy and girl pasted on it. Pointing at the box, the experimenter said: "Oh, this is a box where I am trying to collect some candy for poor children, whose parents don't have any money to buy them candy. If you like, you can give away some of your candy for those children who never get any candy. You don't have to give any candy if you don't want to. These are your candies. If you want to give, you can give away as many candies as you want. It's your decision. I am going out

for a minute. Please put the candies you want to give in the box and put back the ones you want to keep for yourself in the plastic bag."

The experimenter left the room and returned after about two minutes. The number of candies which the subject put in the box was recorded. The subject was allowed to eat the remaining candies, while doing the next task (the SDRCI interview), or was promised to get the candies from the teacher at the end of the day (this had been previously arranged with the teacher). Most of the subjects preferred to eat the candies during the session. Children who gave away all or most of their candies were offered some more candies during the following interview.

Procedure

The study was conducted at the Day Care Center and at the school during the months of April and May, 1973. Three sessions were held, individually, with each subject, at intervals of about two weeks from session to session. All the sessions in each institution were held in the same room.

During the first session, the subjects performed the candy donation task and then the SDRCI was conducted. The average length of this session was 25 minutes. In the second session, the subjects rated their peers on consideration for others. The average amount of time required was 15 minutes. The empathy measures were obtained during the third session.

The average length of time spent in this session was 15 minutes.

All the scoring and coding of the data was done by the present author and an undergraduate psychology major who was not involved in the data collecting stage of the study.

RESULTS

Reliability and Validity of Measures

The findings relating to the reliability of all the measures used in the study are presented in Appendix G. Only a brief summary of these findings is given here, while the data relating to the validity of the measures are presented.

Measures of Empathy

Adequate internal consistency across the four stories was obtained with the verbal measure of empathy. This measure yielded higher empathy scores for the "happy" stories as compared to the "sad" stories. The verbal responses of all the subjects also reflected adequate comprehension of the stories.

The reliability of the non-verbal measure of empathy seems to be less adequate. Inter-rater reliability was fair. Internal consistency was, however, low. This measure, in contrast with the verbal measure, yielded higher empathy scores for the "sad" stories as compared to the "happy" stories.

To obtain information on the validity of the measures of empathy, intercorrelations between the verbal and the non-verbal scores for each story and for total scores

were computed. None of the correlations was statistically significant.

It must be concluded, therefore, that the verbal and non-verbal empathy measures tapped two unrelated phenomena, or at least two very different aspects of the same phenomenon.

Since the internal consistency of the non-verbal measure was less than adequate, this measure may be considered to have rather low reliability and, as a result, cannot obtain high validity.

Stephens-Delys Reinforcement Contingency Interview (SDRCI).--Both inter-rater reliability and internal consistency obtained for the SDRCI seem adequate (see Appendix G). The pattern of intercorrelations between the subtests of the instrument and the total score suggests that awareness of control of personal consequences is different from awareness of control of interpersonal consequences, and that the instrument is more heavily loaded with the latter items.

The split-half reliability of "prescriptive" scores obtained for the "internal" items of the SDRCI was rather low. This poses a problem in regard to the validity of the value orientation measure.

Consideration for Others

Teacher ratings and peer ratings on consideration for others.--Teachers' ratings of the subjects on the

dimension of "active" consideration for others and on the dimension of "passive" consideration for others correlated significantly ($r=.56$; $p<.001$). This finding is different from Murphy's (1937) finding that aggressiveness and sympathy are positively correlated.

Some degree of validity for the obtained ratings can be inferred from the correlation of .47 ($p<.001$) obtained between teacher ratings and the independent peer ratings of the subjects' consideration for others.

Peer ratings by all the female subjects and by all the male subjects on consideration for others correlated significantly ($r=.58$; $p<.001$). Ratings given by each subject to their best friends were significantly correlated with the mean scores given by all the raters; thus the ratings do not seem to reflect merely the extent to which the raters like the ratee.

Candy donation.--The mean number of candies donated for charity was 7.01 (the maximum number of candies that could be donated was 18). The standard deviation was 5.7. While no significant difference in the number of donated candies was found between the preschoolers and second-graders, females were found to donate significantly more candies than males ($t=2.44$; $df=70$; $p<.05$). The mean number of candies donated by females was 8.7 and by males 5.4. Also, family size was found to be positively related to the number of candies donated ($r=.27$; $p<.01$). The teacher

ratings on consideration for others was significantly correlated with the number of candies donated ($r=.32$; $p<.01$). However, none of the peer ratings correlated with the number of candies donated for charity ($r=.06$).

This pattern of relationships among the measures of consideration for others provides some limited support to the validity of the measured construct of consideration for others.

Intercorrelations among all the measures of consideration for others (number of candies donated, teacher ratings and peer ratings on both active and passive consideration for others) were computed separately for second-graders and preschool children, and are presented in Table 1.

Table 1.--Zero-order intercorrelation matrix of measures of consideration for others for preschoolers (upper half of matrix) and second-graders (lower half of matrix).

	Candy	T.R.A.C.	T.R.P.C.	P.R.A.C.	P.R.P.C.
Candy		.45**	.28*	-.12	-.33*
T.R.A.C.	.18		.54**	.27*	.15
T.R.P.C.	.16	.55**		.18	.27*
P.R.A.C.	.03	.50**	.57**		.17
P.R.P.C.	.14	.30*	.59**	.77**	

*P<.05
**p<.005

Note: T.R.A.C. = teacher ratings on "active" consideration for others
T.R.P.C. = teacher ratings on "passive" consideration for others
P.R.A.C. = peer ratings on "active" consideration for others
P.R.P.C. = peer ratings on "passive" consideration for others

This was done to allow the analysis of the effectiveness of measures of consideration for others in the two age groups. In the preschool group the number of candies donated for charity correlated significantly with both of the teacher-ratings of consideration. In the older age group, however, the number of donated candies did not correlate with any of the teacher or the peer-ratings. Peer-ratings in the younger age group correlated with teacher-ratings on the same dimensions. The correlations between teacher and peer-ratings were also significant for the older age group. An unexpected negative correlation was obtained between peer-ratings on "passive" consideration and number of donated candies, in the younger age group.

It is interesting to note that while the younger subjects' ratings of their peers on the two dimensions of consideration for others were not correlated significantly, in the older age group the correlation between peer-ratings of "active" and "passive" consideration was highly significant ($r=.77$; $p<.01$).

It may, therefore, be concluded that peer and teacher-ratings were consistent to a large extent, in both age groups. Candy donation seemed to be associated only with teacher-ratings and this only in the young age group.

Since the candy donation measure yielded significantly different scores for males as compared to females, the inter-correlations between all measures of consideration for others

were also examined separately for both sexes. The inter-correlations are presented in Table 2. The pattern of correlations for boys and for girls was similar. Most of the correlations were, however, somewhat higher for girls.

Table 2.--Zero-order intercorrelation matrix of measures of consideration for others for males (upper half of matrix) and females (lower half of matrix).

	Candy	T.R.A.C.	T.R.P.C.	P.R.A.C.	P.R.P.C.
Candy		.30*	.18	-.19	-.04
T.R.A.C.	.44**		.50***	.39**	.20
T.R.P.C.	.32*	.59***		.30*	.46**
P.R.A.C.	.12	.38**	.46**		.48**
P.R.P.C.	.10	.26	.46**	.63*	

*p<.05
**p<.01
***p<.001

Tests of Hypotheses

Empathy, Age, Sex, Birth Order and Family Size

The first hypothesis tested was that empathy increases with age. The difference in the mean empathy scores, based on verbal reports, between the young and the older age groups was tested using a t test. The older subjects received higher total empathy scores than the younger subjects ($t=2.82$; $df=70$; $p<.01$). This finding supports the hypothesis that second-graders are more empathic than preschoolers. An

analysis of the differences between the mean empathy scores of the two groups, for each story separately, indicated that while the difference in empathy scores obtained for both "sad" stories for the two age groups was significant ($t=3.78$; $df=70$; $p<.001$), the difference was not significant for the two "happy" stories ($t=0.62$). Thus, the difference in the total empathy scores was mainly a reflection of the difference obtained for the two "sad" stories.

The hypothesis that girls are more empathic than boys was tested using a t test for the difference between the mean empathy scores, based on verbal reports, of boys as compared to girls. Girls received higher total empathy scores than boys ($t=3.05$; $df=70$; $p<.01$). Their empathy scores were also significantly higher for each of the four story combinations considered separately ("sad," "happy," boy and girl). Thus, the hypothesis that girls are more empathic than boys was strongly supported by the data.

The hypothesis that ordinal position relates to empathy in a positive manner was not supported by the data since the obtained correlation between ordinal position and empathy scores was not significant. Family size, however, correlated, as hypothesized, with the verbal measure of empathy ($r=.22$; $p<.05$).

Empathy scores based on the subjects' non-verbal affective cues did not reveal any significant differences for sex, age, ordinal position or family size.

Empathy and Consideration for Others

In order to test the hypothesis that children who are more empathic show more consideration for others than those who are less empathic, correlations between verbal and non-verbal measures of empathy and the different measures of consideration for others were computed. The correlations are presented in Table 3.

Table 3.--Zero-order correlations between verbal and non-verbal measures of empathy and measures of consideration for others.

CONSIDERATION FOR OTHERS	EMPATHY					
	Verbal Measure			Non-Verbal Measure		
	Sad	Happy	Total	Sad	Happy	Total
Candy	.18*	.05	.15*	-.11	-.23**	-.21*
T.R.A.C.	.03	.12	-.08	-.08	-.08	-.11
T.R.P.C.	-.08	-.05	-.08	.06	.17*	-.14
P.R.A.C.	-.09	.00	-.06	-.03	-.05	-.05
P.R.P.C.	-.15*	-.14	-.17*	-.22*	.25**	-.06

*p<.10
**p<.05

None of the correlations between the total empathy score based on verbal reports and the measures of consideration for others was significant. However, the correlation of the total empathy score with number of candies donated for

charity approached significance ($r=.15$; $p<.10$). This correlation mainly reflects the significant positive correlation between empathy scores for the S/B story and the number of candies donated ($r=.23$; $p<.05$). Empathy scores obtained for the H/G story correlated significantly with teacher-ratings on "active" consideration for others.

Some negative correlations were also obtained between empathy scores and peer-ratings on "passive" consideration for others. Empathy scores for the S/G story correlated -.20 with peer-ratings on "passive" consideration for others ($p<.05$), and the correlation between total empathy and peer-ratings on "passive" consideration for others was -.17 ($p<.10$).

Using empathy scores based on ratings of non-verbal affective cues, the only measure of consideration for others which correlated significantly with the total empathy score was the number of candies donated for charity ($r=-.21$; $p<.05$). Non-verbal empathy scores obtained for the two sad stories correlated negatively with peer-ratings on "passive" consideration for others ($r=-.22$; $p<.05$). Empathy scores obtained for the two happy stories correlated positively with peer-rating on "passive" consideration for others ($r=.25$; $p<.05$).

Since the candy donation measure seemed to be more sensitive than the other measures of consideration for others, the relationship between empathy and candy-donation

was further explored by dividing the sample into "donors" and "non-donors." This was done since it may be argued that the number of candies per se is not a very meaningful measure, especially with very young children whose concept of number is rather immature. What is more meaningful is the willingness to share and perform a charitable act which involves some self-denial.

The subjects who donated any number of candies for charity were considered "donors" and the subjects who did not donate any candies were considered "non-donors." The sample was thus divided into 55 "donors" and 17 "non-donors." Differences between the "donors" and "non-donors" on the mean empathy scores (using both the verbal and non-verbal measure) were compared using t tests. The means and standard deviations of the empathy scores for both groups are presented in Table 4.

Table 4.--Means, standard deviations and t values for comparisons of verbal and non-verbal empathy scores between "donors" and "non-donors."

		Verbal			Non-Verbal		
		Sad	Happy	Total	Sad	Happy	Total
Non-Donors (N=17)	Mean	0.70	1.71	2.41	3.76	2.12	5.88
	S.D.	0.69	0.47	0.87	2.93	1.90	3.14
Donors (N=55)	Mean	1.30	1.71	3.00	2.33	1.56	3.89
	S.D.	0.85	0.60	1.29	2.43	1.50	2.95
t value		2.58*	.02	1.76*	-2.03*	-1.25	-2.40*

*p<.05 (for a one-tailed t test)

Significant differences were obtained between "donors" and "non-donors" for both verbal and non-verbal empathy scores. When comparing total empathy scores based on verbal reports, "donors" were found to be more empathic than "non-donors" ($t=1.76$; $p<.05$), especially in their reactions to the sad stories ($t=2.58$; $p<.01$). The happy stories did not yield a significant difference ($t=0.02$).

The opposite relationship was obtained when the non-verbal measure of empathy was used. "Non-donors" were found to have higher total empathy scores as compared with "donors" ($t=-2.40$; $p<.05$), and more so when reacting to the sad stories ($t=-2.03$; $p<.05$) as compared to the happy stories ($t=-1.25$; n.s.).

Thus, the hypothesis tested in this study regarding the positive relationship between empathy and consideration for others is supported when candy donation is used as a measure of consideration for others and when the verbal measure of empathy is used.

The difference in mean empathy score obtained for "donors" versus "non-donors" was also analyzed separately for preschoolers, second-graders, males and females. The verbal measure of empathy yielded <u>higher</u> scores (for the sad stories) for "<u>donors</u>" only among second-graders ($t=2.03$; $df=34$; $p<.05$), and among males ($t=2.30$; $df=34$; $p<.05$). The non-verbal measure of empathy yielded <u>higher</u> total empathy scores in "<u>non-donors</u>" only for preschoolers ($t=3.06$; $df=34$; $p<.01$) and males ($t=2.22$; $df=34$; $p<.05$).

Thus, while the hypothesized positive relationship between candy donation and empathy was supported using the verbal measure of empathy for the total sample, the groups contributing most to this result are second-graders and males.

In order to gain more information on the relationship between the measures of empathy and the other measures of consideration for others (teacher-ratings and peer-ratings), correlations were computed separately for males and females. These correlations are presented in Tables 5 (for females) and 6 (for males).

Table 5.--Zero-order correlations between verbal and non-verbal measures of empathy and ratings of consideration for others in females (N=36).

CONSIDERATION FOR OTHERS	EMPATHY					
	Verbal Measure			Non-Verbal Measure		
	Sad	Happy	Total	Sad	Happy	Total
T.R.A.C.	-.32**	-.09	-.28**	-.10	-.09	-.12
T.R.P.C.	-.36***	-.08	-.31**	-.11	-.08	-.13
P.R.A.C.	-.16	-.04	-.14	-.16	-.13	-.20
P.R.P.C.	-.20	-.02	-.16	-.31**	.06	-.25*

*p<.10
**p<.05
***p<.01

Table 6.--Zero-order correlations between verbal and non-verbal measures of empathy and ratings of consideration for others in males (N=36).

CONSIDERATION FOR OTHERS	EMPATHY					
	Verbal Measure			Non-Verbal Measure		
	Sad	Happy	Total	Sad	Happy	Total
T.R.A.C.	.36***	.27**	.37***	-.04	-.10	-.09
T.R.P.C.	.12	.04	.06	.24*	.33**	.38***
P.R.A.C.	.01	.06	.04	.12	-.03	.08
P.R.P.C.	-.03	-.15	-.10	-.10	.35**	.13

*p<.10
**p<.05
***p<.01

The verbal measure of empathy appears to be correlated differently for boys and girls, with measures of consideration for others. For the boys, the empathy scores correlated positively and significantly with teacher-ratings on "active" consideration for others. For the girls, the empathy scores correlated negatively with teacher-ratings on both "active" and "passive" consideration for others. Similarly, the non-verbal measure of empathy was found to correlate positively with teacher-rating on "passive" consideration for others for boys ($r=.38$; $p<.01$) but not for girls ($r=.13$; n.s.).

Peer-ratings on "passive" consideration for others also correlated positively with non-verbal empathy scores

to the happy stories for the boys (r=.35; p<.05) but not for the girls (r=.06; n.s.). Peer-ratings correlated negatively for the girls with non-verbal empathy scores on the sad stories (r=-.31; p<.05) but did not for the boys (r=-.10).

It thus appears that the predicted positive relationship between empathy and teacher and peer-ratings of consideration for others is partially supported boy boys but not for girls.

Tables 7 and 8 present the correlations of teacher-ratings and of peer-ratings with verbal and non-verbal measures of empathy, separately for the two age groups.

Table 7.--Zero-order correlations between verbal and non-verbal measures of empathy and ratings of consideration for others for preschool children (N=36).

CONSIDERATION FOR OTHERS	EMPATHY					
	Verbal Measure			Non-Verbal Measure		
	Sad	Happy	Total	Sad	Happy	Total
T.R.A.C.	-.10	.14	-.00	-.11	-.21	-.21
T.R.P.C.	-.23*	.09	-.12	.11	-.03	.07
P.R.A.C.	-.11	.17	.00	.20	-.32**	-.01
P.R.P.C.	-.35**	-.12	-.31**	-.07	.26*	.08

*p<.10

**p<.05

Table 8.--Zero-order correlations between verbal and non-verbal measures of empathy and ratings of consideration for others for second-grade children (N=36).

CONSIDERATION FOR OTHERS	EMPATHY					
	Verbal Measure			Non-Verbal Measure		
	Sad	Happy	Total	Sad	Happy	Total
T.R.A.C.	.19	.10	.17	-.04	.07	-.00
T.R.P.C.	.01	-.19	-.08	.02	.40***	.20
P.R.A.C.	.00	-.12	-.06	-.24*	.25*	-.08
P.R.P.C.	-.14	-.16	-.17	-.30**	.28**	-.12

*p<.10
**p<.05
***p<.01

For second-graders, none of the correlations based on the verbal report was significant. For the preschoolers, however, the total verbal empathy score was negatively correlated with peer-ratings on "passive" consideration for others ($r=-.31$; $p<.05$). The total empathy score based on the non-verbal cues did not correlate with any of the ratings of consideration for others in either age group. However, in the older age group, non-verbal empathy scores for the happy stories correlated with teacher-ratings on "passive" consideration ($r=.40$; $p<.01$), peer-ratings on "passive" consideration ($r=.28$; $p<.05$), and teacher-ratings on "active" consideration ($r=.25$; $p<.10$). The correlation of

these empathy scores with peer-ratings on "passive" consideration was .26 in the younger age group ($p<.10$).

Thus, when the two age groups are analyzed separately, the hypothesis that empathy and consideration for others are related is supported only by some of the data, namely, for the non-verbal measures of empathy in the older age group.

Awareness of Responsibility for Interpersonal Consequences, Age and Family Size

To test the hypothesis that awareness of responsibility for interpersonal consequences increases with age, the mean "internal" scores on the SDRCI of the two age groups were compared. The mean "internal" score of the preschool subjects was 16.78 and the mean "internal" score of the second-graders was 22.69. A t test showed that the difference between the means was significant ($t=3.84$; $df=70$; $p<.001$). Thus, support was obtained for the hypothesis that second-graders would receive significantly higher "internal" scores than the preschool subjects.

The hypothesized positive relationship between family size and awareness of responsibility for interpersonal consequences was examined by correlating the "internal" scores on the SDRCI with the family size variable. The obtained correlation of .18 is significant at the .07 level.

Awareness of Responsibility for Interpersonal Consequences, Prescriptive Orientation and Consideration for Others

The hypothesis that children who are more aware of their responsibility for interpersonal consequences show more consideration for others was tested by computing the correlations between the "internal" scores on the SDRCI and the different measures of consideration for others. The correlations are presented in Table 9.

Table 9.--Zero-order correlations between "internal" scores and measures of consideration for others for total sample, boys, girls, preschoolers and second-graders.

Consideration for Others	Total r	Boys r	Girls r	Preschool r	Second-Grade r
Candy	.03	.16	-.09	-.05	-.03
T.R.A.C.	.09	.26*	-.07	-.00	.27*
T.R.P.C.	.10	.31**	-.12	.06	.13
P.R.A.C.	.18*	.18	.18	.24*	.26*
P.R.P.C.	.15	.04	.25*	.12	.17

*p<.10
**p<.05

Only the correlation between "internal" scores and peer-ratings on active consideration for others (r=.18) is significant (at the .06 level).

The correlations between "internal" scores and measures of consideration for others were also examined separately for boys, girls, preschoolers and second-graders. These correlations are also presented in Table 9.

Teacher-ratings on "passive" consideration for others correlated significantly with "internal" scores for boys only. Teacher ratings on "active" consideration was significant for boys ($r=.26$) and for second-graders ($r=.27$) at the .06 level. None of the correlations between peer-ratings and "internal" scores reached significance, but a number of correlations approached that level. Peer-ratings on "active" consideration correlated with "internal" scores for pre-schoolers ($r=.24$) and for second-graders ($r=.26$), both at the $p<.10$ level. Peer-ratings on "passive" consideration correlated with "internal" scores for girls ($r=.25$; $p<.10$).

The number of candies donated for charity did not correlate significantly with "internal" scores in any of the groups. No significant differences between the mean "internal" scores for "donors" and "non-donors" were obtained ($t=1.43$; $df=70$).

Given the low, mostly insignificant, correlations between "internal" scores and measures of consideration for others, it seemed appropriate to examine the existence of possible non-linear relationships between the variables. Stephens and Delys (1973) report that the SDRCI tends to yield scores that relate to other personality and behavioral

variables in a curvilinear fashion. Therefore, the entire sample was divided into three equal-sized groups of 24 subjects each, according to the "internal" scores: Low (1-16), Medium (17-22) and High (23-40). A one-way analysis of variance was performed to compare the differences among the three groups on the different measures of consideration for others. The only significant analysis of variance was obtained on peer-ratings on "active" consideration for others ($F=5.447$; $df=2,69$; $p<.01$). The deviation from linearity was also significant ($F=8.171$; $df=1,69$; $p<.01$). A Scheffé test was conducted for the differences between the means of each of the groups. The only significant difference was between the Medium and High groups. The mean of the Low group was 2.00, the mean of the Medium group was 1.75 and the mean of the High group was 2.25.

In order to test the hypothesized relationship between "prescriptive" orientation and consideration for others, correlations between "prescriptive" scores and all measures of consideration for others were computed for the total sample and also for boys, girls, preschoolers and second-graders. These correlations are presented in Table 10.

None of the correlations between "prescriptive" scores and measures of consideration for others was significant, except for the negative correlation between the "prescriptive" scores and the number of candies donated for

charity for females (r=-.27; p<.10). This negative correlation reaches significance for older females. A multiple correlation of sex, age-group, and "prescriptive" scores with the number of candies donated for charity yielded a coefficient of r=.35 which is significant at the .05 level.

Table 10.--Zero-order correlations between "prescriptive" scores and measures of consideration for others for boys, girls, preschoolers and second-graders.

Consideration for Others	Total r	Boys r	Girls r	Preschool r	Second-Grade r
Candy	-.09	-.00	-.27*	-.12	-.12
T.R.A.C.	-.06	.05	-.14	.01	-.21
T.R.P.C.	-.11	-.10	-.12	-.11	-.15
P.R.A.C.	-.12	-.07	-.15	-.18	.01
P.R.P.C.	-.05	.20	-.05	.07	-.00

*p<.10

Multiple correlations of class, sex, empathy verbal measure, "internal" scores and "prescriptive" scores with each of the measures of consideration for others were also computed, but none of these multiple correlations reached significance.

Strength of Predicted Relationships in Preschoolers as Compared to Second-Graders

In order to test the hypothesis that the relationships between measures of consideration for others, measures of empathy and "internal" and "prescriptive" scores will be stronger for older children, previously presented data and conclusions on these relationships were re-examined.

It was previously concluded from the data presented in Tables 7 and 8 that the hypothesis that empathy scores and ratings of consideration for others are significantly related is supported (although only by some of the data) only in the older age group. Similarly, it was previously demonstrated that the mean verbal empathy scores of "donors" were significantly higher than those of "non-donors," only in the older age group.

In order to determine whether the correlations between "internal" scores and measures of consideration for others were higher in the older age group, the mean correlation was computed for each age group, using the Fisher Z-transformation. In the preschool group the mean correlation between "internal" scores and all the measures of consideration for others was .08, and in the second-grade group was .16. The difference between these correlations is not significant, although it is in the expected direction.

Since the hypothesis regarding the relationship between "prescriptive" orientation and consideration for

others was not supported, no comparison between age groups was done on correlations between these measures.

On the whole, it may be concluded that the hypothesis was supported in regard to the relationship between empathy and consideration for others. It was not supported in regard to the other relationships examined ("internal" scores and measures of consideration for others and "prescriptive" scores and measures of consideration for others). This was probably due to the generally low magnitude of correlations obtained among these variables.

Summary of Findings

The following is a brief summary of the findings as they relate to the hypotheses tested in this study.

Hypothesis 1: The hypothesized positive relationship between empathy and consideration for others received some confirmation. Children who donated candies for charity were found to be more empathic (on the verbal measure) than those who did not donate any candy. Boys who were rated by teachers as more considerate were also more empathic (on the verbal measure). Contrary to expectations, however, teacher-ratings correlated negatively with verbal empathy for girls and no significant relationship between empathy and peer-ratings was found. The only significant correlations in the predicted direction obtained with the non-verbal measures of empathy were between empathy scores to the "happy" stories and both teacher and peer-ratings of consideration for others, in males

and in second-grade children. This measure of empathy related negatively to candy donation.

Hypothesis 2: The hypothesized positive relationship between awareness of control of interpersonal consequences and consideration for others received only limited support from the marginally significant correlations between teacher and peer-ratings on consideration for others and "internal" scores on the SDRCI.

Hypothesis 3: The predicted positive relationship between a prescriptive value orientation and "active" consideration for others was not supported by the data.

Hypothesis 4: The hypothesis that second-graders are more empathic than preschool children was confirmed by the higher empathy scores received by the older subjects on the verbal measure. The hypothesis was not supported on the non-verbal measure of empathy.

Hypothesis 5: As hypothesized, second-graders were found to be more aware of responsibility for interpersonal consequences than preschoolers.

Hypothesis 6: As expected, higher correlations between empathy and consideration for others were obtained for second-graders as compared to preschoolers. The relationship between awareness of interpersonal consequences and consideration for others was not found to increase significantly with age, although a trend in this direction was noted.

Hypothesis 7: The hypothesis that females are more empathic than males and that children from larger families are more empathic than children from smaller families was confirmed by the data only on the verbal measure of empathy. The expected relationship between ordinal position and empathy was not obtained.

Hypothesis 8: The hypothesized positive relationship between family size and awareness of responsibility for interpersonal consequences was somewhat supported by the marginally significant correlations between family size and "internal" scores.

DISCUSSION

The following discussion will first evaluate the different measurement operations used in the study and consider the theoretical and methodological implications of individual differences on each measure. The data relating to the hypotheses tested in the study will then be reviewed and discussed, and finally, conclusions, implications, as well as suggestions for future research will be offered.

Measures of Consideration for Others

A major purpose of this study was to examine the relationship between consideration for others and such variables as empathy and awareness of responsibility for interpersonal consequences. Consideration for others was measured by peer-ratings, teacher-ratings, and a situational test of candy donation. Prior to suggesting conclusions about the relationship between consideration for others and other variables, it seems appropriate to discuss the extent of consistency among the different measures of consideration for others used in the study. Peer-ratings and teacher-ratings were significantly related. Number of candies donated for charity, however, related only to teacher-ratings.

Thus, the validity of the construct of "consideration for others" gained some support from the obtained consistency between the different independent measures. Furthermore, the notion of the existence of consistent individual differences in consideration for others, even at a very young age, was supported. Since this construct reflects many different behaviors across many different situations, each of the measurement operations used in the study seems to explain a different portion of the variance, in addition to some degree of overlap between the operations.

The pattern of relationships between the different measurement operations can be explained on the basis of the similarity between the situations in which the behaviors were measured. Both teachers and peers have many opportunities to observe the children in many situations during their social interaction in the classroom, and the consistency in their ratings may reflect these common observations.

The candy donation measure, however, involves a situation in which a plea is directed by an adult to the child. Teachers usually have similar experiences with their pupils. The child's behavior in the presence of his teacher may be different than when he is with his peers, and may reflect to a larger extent the need for approval and conformity. This would explain the relationship between the candy donation measure and the teacher-ratings and the lack of significant relationship between peer-ratings and candy donation.

The finding that girls scored higher than boys on the candy donation measure may similarly reflect the higher conformity to adults in girls. This is similar to the Hovland and Janis (1959) findings concerning the higher persuasibility of females as compared to males.

The lack of relationship between the candy donation measure and peer-ratings on consideration for others has important implications for research in the field of altruism, where the candy donation measure is widely used (Krebs, 1970). This finding points to the limitation of this measure, especially if "altruism" is considered to be a consistent personality attribute, which influences interpersonal social behaviors with one's peers.

The significant correlations between teacher and peer-ratings in both age groups are an important finding in themselves. It demonstrates that children as young as four and five years of age are aware of this aspect of their peers' social behavior and can make relatively accurate judgments about it. The methodological implication is that the limited use of peer-ratings with very young children on the grounds of their inability to make accurate judgments is unjustified.

It should be noted that the distinction made in this study between "active" and "passive" consideration for others was indeed useful. Although the two dimensions were significantly correlated, both on teacher-ratings and peer-ratings,

the two measures correlated somewhat differently with the other variables examined in the study. The correlations between the two suggested dimensions of consideration for others are similar to those reported by Rutherford and Mussen (1968). In their study, "generous" nursery school boys were also rated by teachers as less quarrelsome and aggressive. These findings are in contrast to those obtained by Murphy (1937), where a correlation of .40 was found between aggression and sympathy (measured by teacher-ratings) in nursery school children.

It is impossible to determine whether the correlations obtained in the present study and in that by Rutherford and Mussen reflect consistency in different aspects of considerate behaviors exhibited by the subjects, or the tendency of raters to generalize in their perceptions of individual children. To clarify this point, a possible study might examine the consistency of children's behavior across situational tests involving both "active" and "passive" consideration for others.

Measures of Empathy

Empathy was investigated in this study in relation to consideration for others as well as to the demographic variables of age, sex, birth order and family size. Empathy was measured in two different ways. The verbal and the nonverbal measures of empathy were not significantly correlated. The inconsistencies between the measures of empathy and

their different sensitivity to "sad" and "happy" affect may imply that each measure tapped a different aspect of the emotional subjective experience of empathy and that each has different strengths and weaknesses.

The subjects' verbal reports of their emotional experiences appear to be a reliable measure. They reflect, however, a complex of variables, such as the subject's emotions, his awareness of his feelings and his willingness to report them accurately. The reason for the higher empathy scores obtained using this measure for the "happy" as compared to the "sad" stories may be explained as an effect of social desirability associated with the verbal report. A similar result was obtained by Feshbach and Roe (1968) using a verbal report measure to a different set of slide presentations and narrations. It thus appears that the higher scores obtained for the "happy" stories may be an artifact of the method of verbal reports of feelings, rather than of the particular instrument used to elicit empathy in the present study.

The measure employing ratings of the subjects' non-verbal affective cues seems to measure a much more immediate or primary reaction to the stories. Obtaining reliable ratings was a difficult task. One possible reason is the use of the Judge method (Ekman, Liebert, Friesen, Harrison, Zlatchin, Malmstrom and Baron, 1972), in which relatively untrained judges rate facial expressions of the child, rather

than the more expensive Facial Affect Scoring Technique (FAST), in which highly trained coders score all muscle movements of the face with the aid of a highly complex video-computer installation (Ekman, Friesen and Tomkins, 1971).

Attempts to rate non-verbal facial affects in children, using the Judge method, are in their exploratory stage (Ekman, et al., 1972), and typically involve the use of 20 to 25 judges to obtain reliable ratings. This study employed only two judges. One difficulty associated with rating non-verbal cues is the individual differences in typical affective moods of the subjects (the raters in this study often remarked about the difficulty of rating a child with a "sad face" or a "grinning face"). From the lower empathy means obtained for the "happy" stories as compared to the "sad" stories, when using the non-verbal measure, it appears that cues of happiness are either more subtle or harder to elicit than cues of sadness. It is also possible that the "happy" non-verbal cues were more often classified as "neutral," in comparison to the "sad" non-verbal cues. These problems affected the reliability of the non-verbal measure of empathy. The use of more raters, and providing more systematic training for the raters, especially in detecting cues of "happiness," may improve this measure in the future. The provision of specific definitions and conceptualizations may further improve the ratings.

Since the affect rating categories were very global, it may be assumed that the rating of "negative" affect reflected not only the sharing of feelings of sadness of the portrayed figure but also anxious defensive reactions to the unpleasant stories. That the stories did indeed elicit such reactions in some of the children is evident from the children's explanations of their feelings at the end of the interview following the presentation of each story. For example, a number of children who reported feeling "happy" as a response to the sad stories explained their feeling by "making up" positive outcomes to the stories (e.g., in the story describing the child who lost a baseball glove, a few children contended that the story made them feel happy "because he found the glove later on"). A possible interpretation of ratings of negative affect will be referred to later when the main results of the study are discussed. In spite of the apparent shortcomings of the non-verbal empathy measure, an attempt is made to interpret these data while examining the empathy scores for the "happy" and "sad" stories separately. This may offer some useful insights into the other results of the study as well.

The inconsistency in the results obtained by using the verbal and the non-verbal measures of empathy is similar to the inconsistencies reported by Stotland and Dunn (1963) between findings based on their verbal report measure of empathy as compared to a physiological measure.

Empathy and Consideration for Others

A major hypothesis tested in this study was that children who are more empathic (tend to share the emotion of others) would also tend to behave in ways which reflect consideration for others. Since the verbal report is considered to be the more reliable measure of empathy, the conclusions regarding the hypothesis are first examined in relation to this measure.

For the total sample the tested hypothesis was supported for the candy donation measure of consideration for others. Children who donated candy to charity were found to report more often sharing the feelings of a fictional "other" than those who did not donate any candy. The hypothesis was also supported using teacher-ratings of consideration for others, but only for the male subjects.

A possible explanation for the stronger relationship between the candy donation measure and empathy in comparison to the other measures of consideration for others is that the two situations in which the verbal empathy measure and the candy donation measure were obtained have many common features. The candy donation situation involves the presentation of a story about the situation of a fictional poor child. This is very similar to the situation in which empathy was elicited and measured. The higher correlations between empathy scores to the "sad" stories and candy donation may reflect the greater similarity between the story presented

in the candy donation situation and the sad stories in the empathy measurement procedure. Both situations involve an adult (the experimenter) whose presence may influence the child's verbal response or donation behavior. The situations and behaviors reflected in the teacher and the peer ratings are more varied and different from the "candy" situation.

The importance of the finding regarding the positive relationship between verbal reporting of an empathic emotional reaction and sharing behavior, however, should not be underestimated. It implies that when alternatives of "active" behavior are presented to a child, the child who is more likely to get involved emotionally or at least report such an involvement, is also more likely to actually act in a manner reflecting consideration for others.

Teacher-ratings of consideration for others and empathy were found to be positively correlated for males but negatively correlated for females. This finding is somewhat similar to the Feshbach and Feshbach (1969) findings regarding the relationship between aggression and empathy in six and seven year old children. The hypothesized negative correlations between empathy and aggression were supported for boys but not for girls.

A number of explanations for the different correlates of empathy in boys as compared to girls are possible. Reporting one's feelings, especially feelings of sadness, in

reaction to the affective situation of another individual is very socially desirable for girls, but undesirable for boys. This was reflected in the greater frequency of empathic responses in girls as compared to boys. Male subjects who did report an empathic emotional experience may, therefore, be either those who had experienced stronger emotions than others, or those who are more self-reliant and independent, and less susceptible to social-desirability and conformity demands. In other words, the verbal measures of empathy may reflect in males as compared to females either stronger emotions, or a more independent social attitude.

A certain degree of initiative and confidence is necessary for the performance of the social behaviors on which the teacher rated the subjects, especially those considered under the dimension of "active" consideration for others, which involve going out of one's way to do something for others. It should be noted that only the teachers' ratings on "active" consideration for others correlated with empathy in boys, but not the ratings on "passive" consideration for others. This is consistent with the above explanation.

Additional support for the proposed explanation can be derived from the positive relationship between self-esteem and empathy in college students reported by Stotland and Dunn (1963). They maintain that individuals who have high self-esteem have less need to be concerned with themselves and can "lose themselves" more in other people.

The negative correlation for girls between empathy and teacher-ratings on consideration for others is more difficult to explain. Since reporting feelings is socially desirable for all females, it may be argued that the females who reported empathy more frequently than others (especially to the "sad" stories) were either more anxious and imaginative or more conforming and dependent. In either case, they would be less likely to cope successfully with interpersonal relationships and show consideration for others.

High empathy scores for females may, in fact, reflect the syndrome of social immaturity described by Murphy (1937). She observed the seemingly empathic reactions of some highly fearful and imaginative nursery school children (e.g., crying when observing someone else's accident). She suggests that they may be in fact concerned with their own anxieties which are projected to others, and that their anxiety may lead to a seemingly empathic emotional reaction but not to behavior directed to benefit others.

Another possible explanation for the differential correlates of empathy in boys and girls relates to their different styles of coping with the environment. Garai and Scheinfeld (1968) conclude on the basis of literature on sex differences, reviewed in their article, that males have an "activity orientation" to the environment, and tend to take initiative, act upon and manipulate the external environment. Females, in comparison, have a "reactive" or "response orientation" and tend more often to react to

stimulation received. Given these differences, it may be argued that males are much more likely than females to act upon their feelings. Thus, feelings of empathy are much more likely to get transmitted into actions intended to benefit others in males, than in females.

None of the peer-ratings on consideration for others correlated with the verbal measure of empathy. It may be speculated that since peers have the opportunity to observe other children both in the presence of an adult and also with other children, they are better able to discriminate between behaviors that are motivated by self-serving considerations (wanting to please an adult), conformity or social desirability and behaviors that are motivated by a genuine concern for others. The possibility that the verbal measure of empathy reflects in part the effects of social desirability demands may at least partially explain the failure to obtain significant results using the verbal measure of empathy. This argument is supported by the data obtained using the non-verbal measure of empathy, which should not be as susceptible to the effects of social desirability as the verbal report measure.

Empathy scores obtained for the "happy" stories using the non-verbal measure did correlate with peer-ratings and also with teacher-ratings of "passive" consideration for others. This finding may suggest that children who are typically cheerful and enjoy their own as well as others'

experiences are less likely to act in destructive or anti-social ways, although they are not necessarily likely to go out of their way to benefit others. Since the empathy scores obtained for the "happy" and for the "sad" stories using the non-verbal measure were unrelated, it is not surprising to find that the scores obtained for the "sad" stories correlate negatively with teacher-ratings of "active" consideration for others and the candy donation measures. It was suggested earlier that the ratings of reactions to the "sad" stories may at least in part reflect a defensive anxious reaction of the subjects. Children who tend to be more anxious would be less likely to exhibit behaviors involving the taking of initiative to benefit others.

It should be noted that although a causal relationship was implied at some points in the discussion of the findings on the relationship between empathy and consideration for others (empathy being the antecedent of considerate behavior), the data are correlational and do not support any directionality of the obtained relationships. In effect, the argument that feelings motivate behavior can be reversed. It is as reasonable to argue that children who behave in considerate ways and are reinforced, either socially or vicariously, will develop a greater sensitivity to the affective states of others, and tend to share these feelings more often.

Awareness of Responsibility for Interpersonal Consequences and Consideration for Others

The hypothesis that children who are more aware of their responsibility for interpersonal consequences show more consideration for others was only partially supported. A number of correlations between teacher and peer-ratings of consideration for others and "internal" scores approached significance, and point at least to a trend in the expected direction. There are, however, also some limited data pointing to a non-linear relationship between consideration for others and "internal" scores. Stephens and Delys (1973) mention that their instrument has been found previously to yield non-linear relationships between "internal" scores and behavioral measures. They suggest that this may reflect an artifact of the instrument.

Several other explanations for the non-significant correlations between "internal" locus of control scores and consideration for others are possible. Given the scarcity of data relating to the validity of the instrument, and the young age of the subjects, it may be possible that the instrument measures some personality aspects that are on the surface similar to "internal locus of control" or "awareness of responsibility for interpersonal consequences," but in effect have a different meaning in children. One such aspect is "egocentrism." Scores reflecting frequent reference to "I" as the cause of all happenings may reflect,

at least to a certain extent, an immature sense of immanence observed in young children (Piaget, 1954). In this case, one would not expect a high correlation with consideration for others.

A different possibility is that children who are more aware of their control of interpersonal consequences are those who try to control others and take advantage of them. In other words, awareness of one's power in young children may be related primarily to exercising those powers to benefit one's self and only to a secondary degree (when the interests of self and other are not in conflict) to benefit others. Further research with the SDRCI would help clarify these issues.

Prescriptive Versus Proscriptive Value Orientation and Consideration for Others

It was hypothesized that children who are more "prescriptive" in their orientation (are more aware of what they ought to do) show more "active" consideration for others, while children who tend toward a more "proscriptive" orientation (are more aware of what they should not do) show more "passive" consideration for others. The hypothesis was not supported in this study. This finding is inconsistent with the data reported by Olejnick and McKinney (1973). In their study a prescriptive orientation in parents and children correlated with a candy donation measure in preschool children.

Given the low reliability of the measure used in this study, discussion of the meaning of the obtained results seems highly speculative and should be delayed until a more reliable measure of the prescriptive/proscriptive dimension in young children is developed.

Empathy and Sex

The hypothesis that females are more empathic than males was confirmed in the study using the verbal measure of empathy. This finding may reflect girls' greater concern with interpersonal relations as compared to boys. The data on sex differences show that females as compared to males are more dependent on feedback from others as a source of satisfaction (Garai and Scheinfeld, 1968). As was pointed out earlier, the higher empathy scores in girls could, however, also reflect the greater social desirability of reporting of feelings for girls as compared to boys, and their stronger need for approval in the "empathy" situation.

Empathy and Age

It was hypothesized that empathy will increase with age. This hypothesis was supported in the study, using the verbal measure of empathy. In order to gain more information about the processes associated with the age-related increase in empathy, the subjects' explanations of their reported feelings to the stories (obtained during the "empathy" interview) were categorized and then analyzed separately for the two age groups.

The explanations given by the subjects were assigned to one of the four categories that emerged from studying the responses:

(a) "Factual explanations"--This basically entails reporting the facts on the story or the perceived affective situations. For example, "I felt happy because the boy got to go the circus," "I was sad because the little girl was alone and felt sad."

(b) "Role taking" explanations--This involves drawing on one's own past experiences and feelings or imagining one's self in the situation portrayed in the story. For example, "Something like that happened to me once and I was surprised and very happy," "If this happened to me I would be sad."

(c) "Defensive" explanations--These responses involved either the introduction of marked change or addition to the story that changed its consequences or the ignoring of the content of the story and focusing on some minor details. For example, "I felt happy because he did not really lose the glove. It got lost but then he found it . . .," "I felt happy because the boy had a funny hat" or "I felt happy because it was a short story."

(d) "I don't know" responses.

The distributions of responses obtained for the two age groups are presented in Table 11. Comparing the distribution of responses of the two age groups yielded a chi square value of 9.16, which is significant at the .05 level (df=3).

Table 11.--Distribution of explanations of affect to the sad stories for both age groups.

Type of Explanation	Preschoolers	Second-Graders
"Factual	27	31
"Role-Taking"	11	21
"Defensive"	24	10
"Don't Know"	10	10

Since the difference between the two groups in the frequency of "I don't know" responses and "factual explanations" was not significant, the difference between the two age groups is accounted for by the lower frequency of "role-taking" explanations in the younger group ($Z=2.01$; $p<.05$) and the greater incidence of "defensive" explanations in this group ($Z=2.97$; $p<.01$).

The results suggest that the increase in empathy with age is not the result of better understanding of the stories by older children or their being more verbal. Rather, it seems that the major factors accounting for the increase of empathy with age are two-fold: first, the reduction in defensive anxiety which is associated with a better ability to differentiate between self and other (Murphy, 1937); and second, an increase in role-taking ability, which is also reported by Flavel (1968) and by Olejnick (1973). Stotland, Sherman and Shaver (1971) report that empathy increases

significantly when one is instructed to imagine himself in the position of the observed person rather than just observing or imagining the situation of the other individual. The "imagine self" set requires one to be able both to overcome the anxiety associated with imagining one's self in an unpleasant or emotionally arousing situation and the cognitive ability to see things from the perspective of others.

The lack of support for the hypothesis using the non-verbal measure of empathy may again be the result of the lack of discrimination in this measure between anxiety and empathic feelings of sadness. Anxiety, as was just pointed out, would tend to reduce empathy.

Awareness of Responsibility for Interpersonal Consequences and Age

The hypothesis that second-graders are more aware of their responsibility for interpersonal consequences than preschool children was supported. Most of the research conducted on the locus of control dimension focuses on adults and older children, and largely ignores developmental changes on this dimension. The present finding is consistent with the recent data reported by Lifshitz (1973). Using a different locus of control measure (the Intellectual Achievement Responsibility Questionnaire), she found an increase in "internal" control from age 9 to 14. These findings point to the role of social experience in the development of one's realization of his social impact.

Empathy, Birth Order and Family Size

The hypothesis that later born children are more empathic than first born and only children was not supported in the study. This finding is inconsistent with the findings reported by Stotland and Dunn (1963), but is consistent with the data reported by Stotland and Walsh (1963) and more recent data reported by Stotland, Sherman and Shaver (1971). Stotland and his collaborators argue on the basis of their more recent data that birth order *per se* is not related to the degree of empathy. They propose that because of the different socialization experiences of later borns, they tend more often to empathize with people who are similar to themselves, while first born and only children tend to empathize with people who are different from themselves.

The hypothesis that children from larger families are more empathic was supported in the study, using the verbal measure of empathy. It is interesting to note that while the studies by Stotland and his collaborators have invested much effort in clarifying the relationship between birth order and empathy, they curiously do not present any data relating to family size.

The results of the present study suggest that family size and the experiences related to "being in the same boat" with siblings, e.g., being punished together or delighted when a happy event affects all the children in the family, may be more important in the development of empathy than

ordinal position. This suggestion is consistent with the theorizing of Aronfreed and Paskal (1965, 1966), who propose that empathy develops through the temporal association of one's own experience of an affective situation with that of another person, through which the latter acquires reinforcing qualities.

Awareness of Responsibility for Interpersonal Consequences and Family Size

The hypothesis that children from larger families are more aware of their responsibilities for interpersonal consequences received some support in the study. The obtained correlations, however, reached significance only for males ($r=.28$); $p<.05$) and only approached significance for the total sample. Replication with a sample that includes a greater proportion of children from large families is necessary.

Lifshitz (1973) suggests on the basis of her results that locus of control is associated with reinforcement for autonomous behavior by socialization agents. Parents in larger families are perhaps more likely to expect and to reinforce their children's independence, because of the greater care-taking demands put on them.

Consideration for Others and Family Size

Although the relationship between family size and consideration for others was not among the hypotheses of the present study, the available data seem worthwhile reporting,

especially in view of the reported positive relationships obtained between family size and both empathy and awareness of responsibility for interpersonal consequences.

Positive correlations were obtained between family size and both number of candies donated for charity ($r=.27$; $p<.01$), and teacher-ratings on "active" consideration for others ($r=-.24$; $p<.05$). The positive relationship between altruism and family size is consistent with most of the reported research (see Krebs, 1970).

Peer-ratings on "active" consideration correlated negatively with family size ($r=-.26$); $p<.05$). This finding may reflect the relatively smaller motivation on the part of children with siblings to try and acquire playmates from outside the family. The positive correlation between peer-ratings on "active" consideration and the number of "best friend" choices that each subject received (during the peer-rating procedure) supports this last suggestion ($r=.28$; $p<.01$).

Strengths of Predicted Relationships in Preschool and Second-Grade Children

It was hypothesized that the relationship between consideration for others and both empathy and awareness of responsibility for interpersonal consequences would be stronger in the older age groups than the younger age group. Most of the data are consistent with this hypothesis. This finding implies the greater stability of the relevant

personality variables at age seven as compared to age four, and the greater behavior consistency achieved with age. More information on age-related changes in the relationship among feelings, cognitions and behavior is needed.

In conclusion, the findings of the present study suggest the importance of studying emotional as well as cognitive factors in trying to understand the development of pro-social behaviors. The obtained relationships between consideration for others and both empathy and awareness of responsibility for interpersonal consequences point out the need for new theoretical formulations emphasizing positive growth and mastery forces beginning early in life.

The magnitude of the obtained relationships is not very high. The measurement of the variables studied, however, is at an exploratory stage. Some suggestions relating to the improvement of the non-verbal measure of empathy were pointed out earlier. The replacement of the stories with semi-structured but more "real" situations might contribute to the improvement of the procedure of eliciting and measuring empathy. The present study has some clear limitations. The sample is highly selective and homogenous, consisting of children of college students in a Midwestern university. Data from different groups of children may supplement the information obtained in the present study. Given the different relationships obtained among the studied variables for boys as compared to girls and for

second-graders as compared to preschool children, a larger number of subjects from each age and sex group is needed to clarify these relationships. The extension of the study to older age groups of children is also necessary. The data offer some important leads into family interaction influences on the development of consideration for others. Pursuing these suggestions will help to provide knowledge with practical applications to promotion of consideration for others in children and adults.

APPENDICES

APPENDIX A

PARENTS' LETTER

Michigan State University
Department of Psychology

April 5, 1973

Dear Parent:

We are conducting a research project on the development of consideration for others in children. The importance of this subject is self-evident, and we would like to ask your approval for your child's participation in the project.

We are specifically interested in children's reactions to the feelings of others. Each child in the project will listen to some stories and then will be asked questions on their impressions of the stories. Information obtained from the children will be treated as confidential material and will be presented only as group data, without mentioning any names of children. The project will be conducted at the day-care facility, during the child's stay at the center, and each child will be involved for about 30 minutes.

The project has been reviewed and approved by the Research Committee of the Children's Board (the Parents' Board) of the Married Students Activities Unit, as of April 2, 1973. It has also been approved by the Department of Psychology at Michigan State University.

If you wish any further information, please call Mrs. Esther Cohen at 355-6009. We will assume that you have no objections for your child to participate in our study, unless we hear from you to the contrary by April 10, 1973 (either through a note to your child's teacher or a phone call to us).

Thank you very much for your cooperation.

Sincerely,

John-Paul McKinney
Professor of Psychology

Esther Cohen
Ph.D. Candidate in Psychology

APPENDIX B

EMPATHY STORIES

STORY #1 (sad)

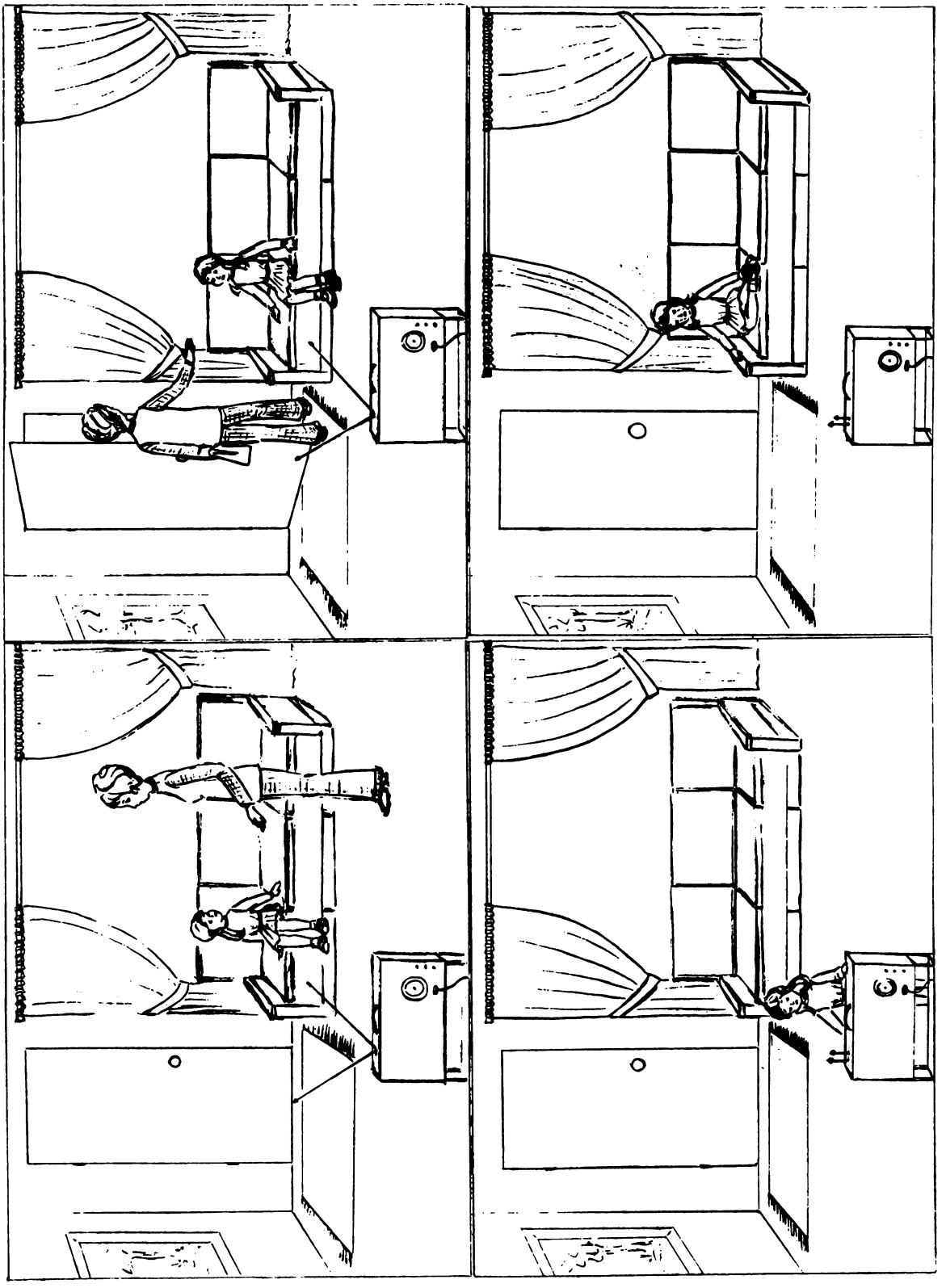
This little girl's name is Mary. One afternoon she was sitting and watching TV when her mother said to her: "Mary, I have to go pick up daddy from work. The baby-sitter can't come, and I won't be gone long anyhow." Mary didn't like the idea of staying alone, all by herself, in the house.*
Her mother left the house and suddenly the house was very quiet. Mary watched TV for a while and decided to turn it off because the program had all kinds of scary animal in it.*
It was getting dark outside and Mary's parents were not home yet. Mary thought to herself, "Mom said she would be right back, and now it's late already, and I am hungry, and tired and alone, and she has not come back. I don't know what happened. I don't know what to do." And then Mary started crying.*

*20 seconds

**32 seconds

***54 seconds

ILLUSTRATIONS FOR STORY #1



Story #2 (sad)

This boy is Scott. On his birthday he got a baseball glove that he wanted very much. His mother said, "Don't lose the glove because it's a very expensive one."

Scott went outside with his new glove to show it to his friends and to play with them. After playing for a while he decided to go into the house to get a drink. When he came outside again he couldn't find his baseball glove.* "Did you see my glove?" he asked his friends. "I left it right here on the ground." Nobody knew where the glove was. Scott and his friends looked for it everywhere but they couldn't find it.*

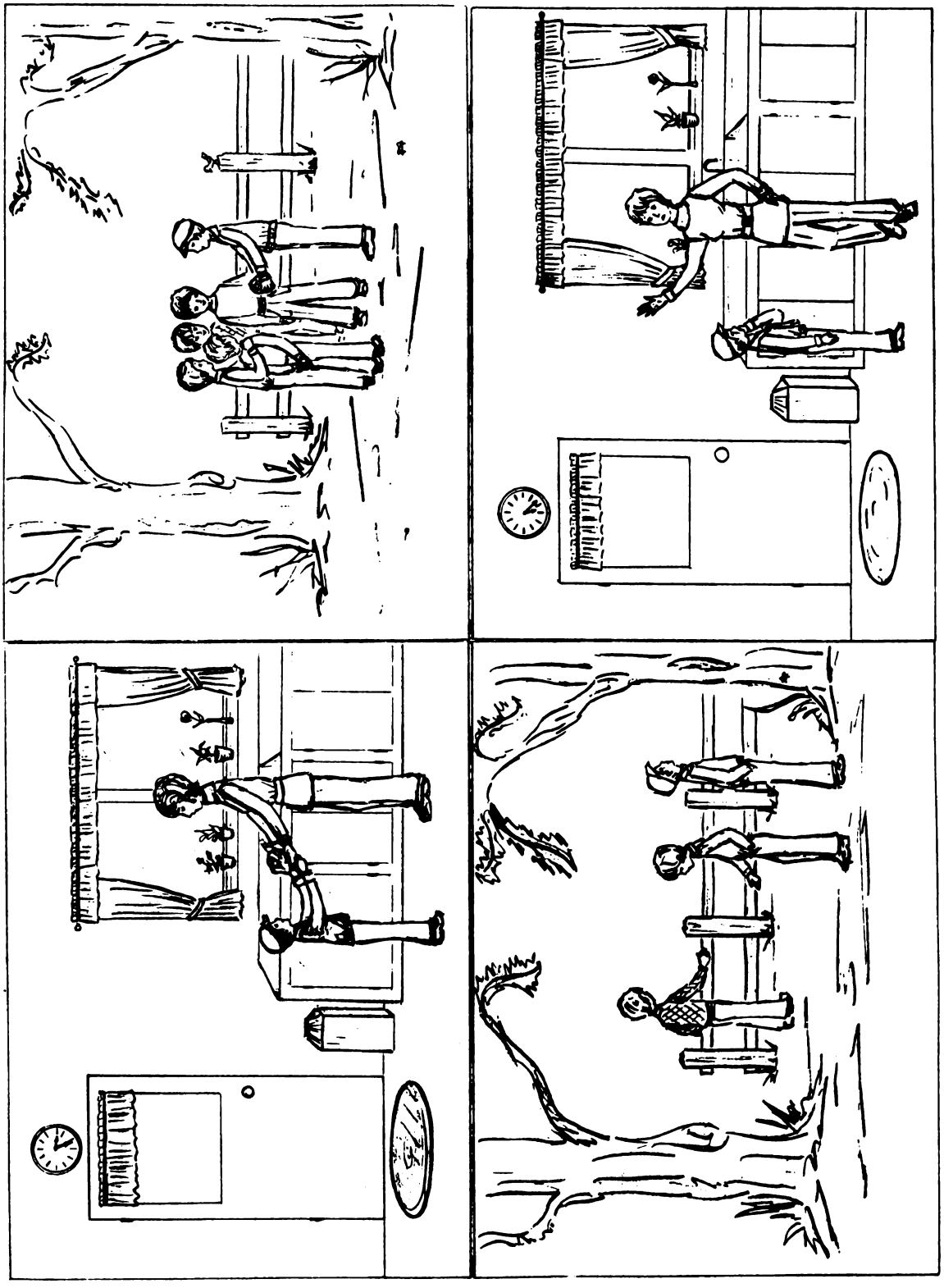
Scott went back to the house and told his mother, "I lost my new glove. I don't know where it is." His mother answered, "I'm very angry at you because you lost the glove. I'm not going to get you a new one."*

*28 seconds

**45 seconds

***63 seconds

ILLUSTRATIONS FOR STORY #2



Story #3 (happy)

This little girl, Julie, was playing at her friend's house and saw her friend's new record player. They listened to all her friend's nice records and really liked them. When Julie came home she told her mother, "My friend has such a nice record player. I love to listen to records. I wish I had one too." Her mother answered, "It sounds like a good idea. I'll talk to daddy about it and we'll see what we can do."*

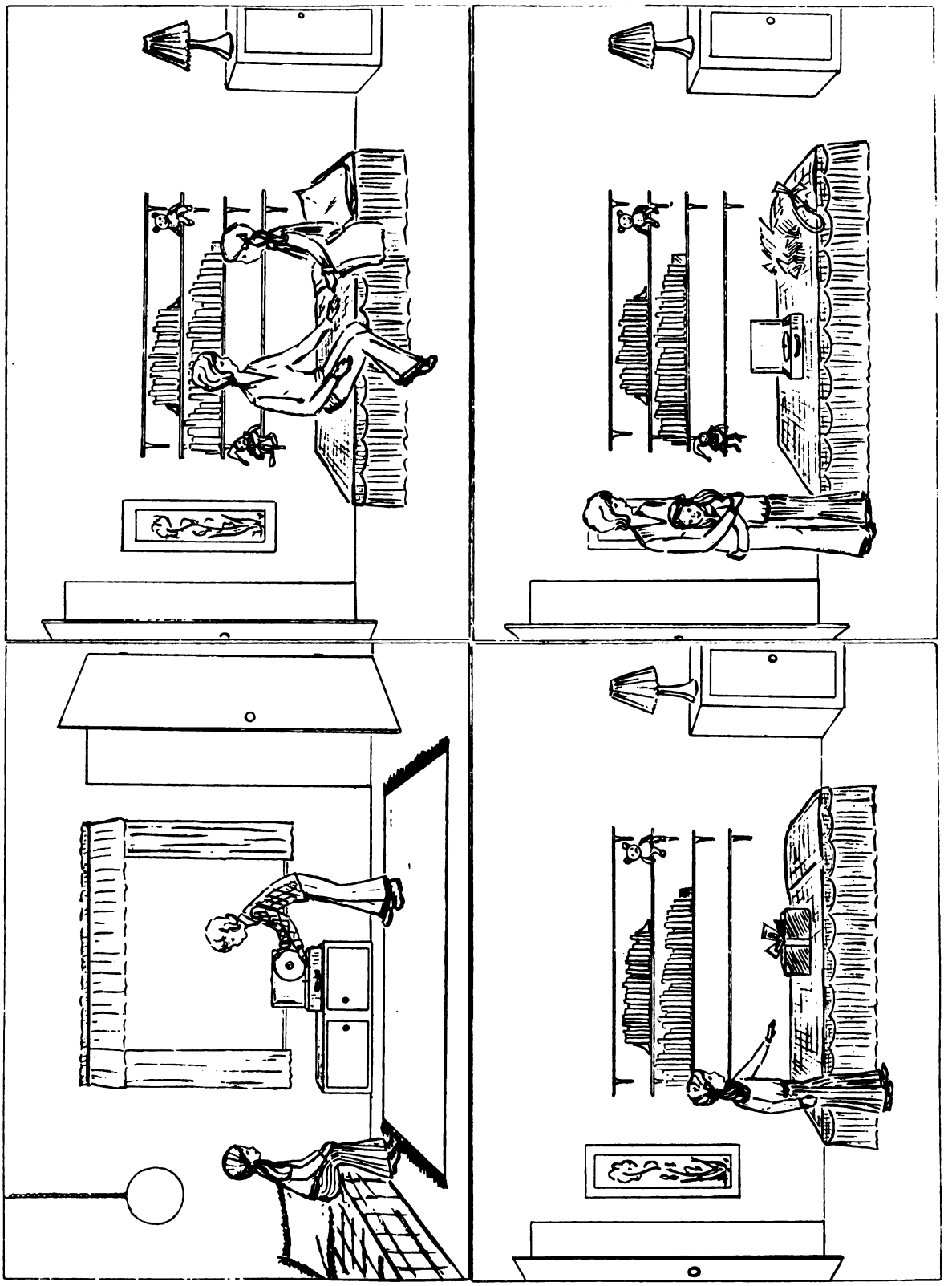
The next day when Julie came home from school she went into her room to get something, and saw a big wrapped package on her bed. "Maybe it's the record player?" she thought to herself.* She opened the package and inside she found a record player just like the one she wanted, and ten records. Julie ran downstairs and gave her mother a big hug and kiss.*

*26 seconds

**37 seconds

***50 seconds

ILLUSTRATIONS FOR STORY #3



Story #4 (happy)

This boy's name is Johnny. One day his teacher in school told all the children that there is a circus in town with funny clowns and a dancing monkey and also an acrobat who can fly in the air. "I hope you all can go to see it," she said. Johnny wanted to go to the circus very much. When he came home he told his mommy about the circus. "Can we go and see it?" he asked. His mommy said, "I think so. That will probably be fun.*

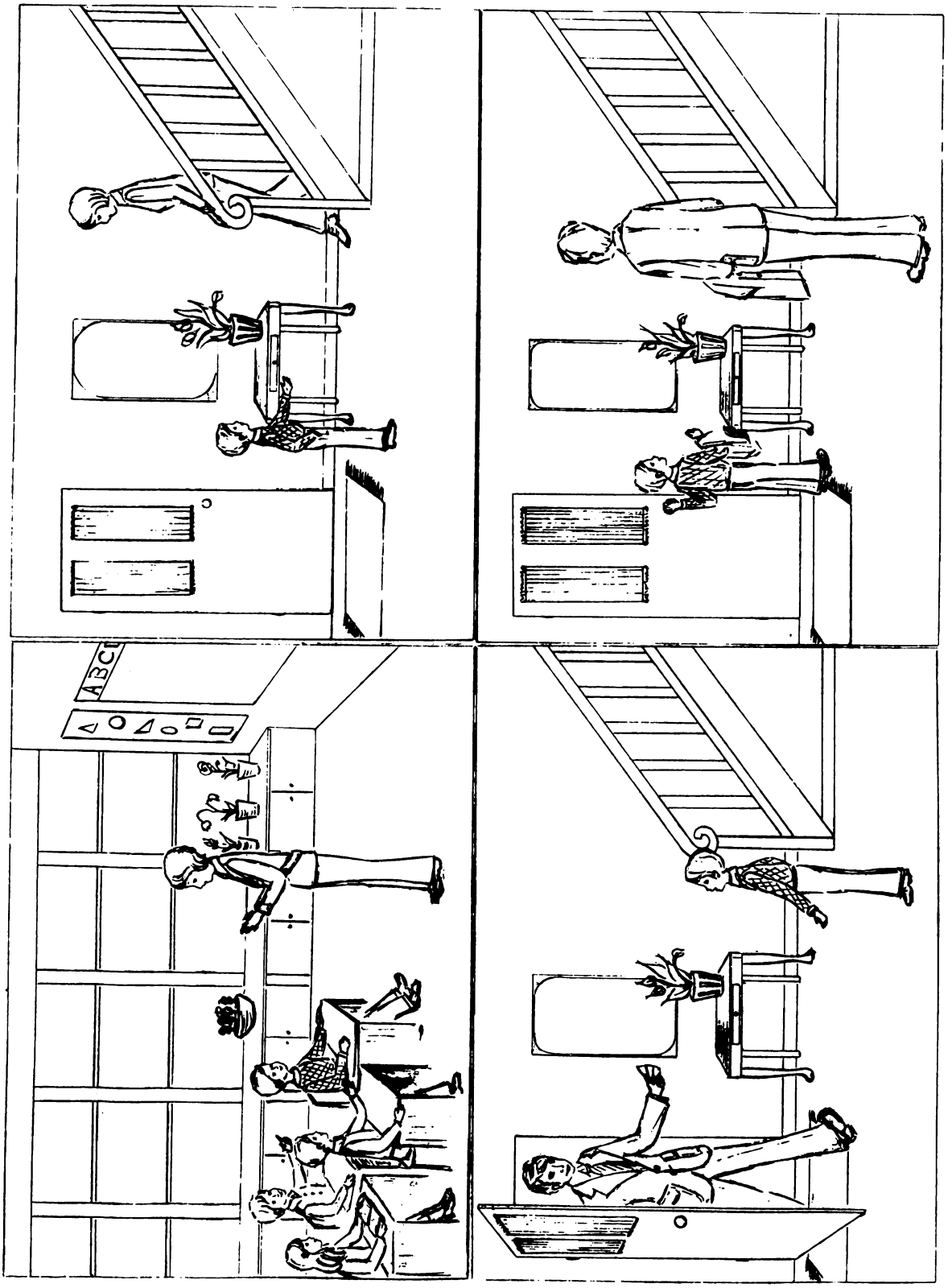
When his daddy came home Johnny ran over to him and said, "Daddy, can we go to the circus?" His daddy put his hand in his pocket and took out three tickets* and said, "I thought I would surprise you, Johnny, so I already bought the tickets for the circus. We can go right now. Run, go get your coat." Johnny smiled and ran to the closet. "Thank you daddy," he called. "I love you."*

*30 seconds

**43 seconds

***60 seconds

ILLUSTRATIONS FOR STORY #4



APPENDIX C

EMPATHY SCALE FOR NON-VERBAL RATING

Subject_____ Date_____

Condition_____

Rater_____

STORY #1

A.	Interested	Uninterested	Positive Affect	Indifferent	Negative Affect
B.	Interested	Uninterested	Positive Affect	Indifferent	Negative Affect
C.	Interested	Uninterested	Positive Affect	Indifferent	Negative Affect

STORY #2

A.	Interested	Uninterested	Positive Affect	Indifferent	Negative Affect
B.	Interested	Uninterested	Positive Affect	Indifferent	Negative Affect
C.	Interested	Uninterested	Positive Affect	Indifferent	Negative Affect

STORY #3

A.	Interested	Uninterested	Positive Affect	Indifferent	Negative Affect
B.	Interested	Uninterested	Positive Affect	Indifferent	Negative Affect
C.	Interested	Uninterested	Positive Affect	Indifferent	Negative Affect

STORY #4

A.	Interested	Uninterested	Positive Affect	Indifferent	Negative Affect
B.	Interested	Uninterested	Positive Affect	Indifferent	Negative Affect
C.	Interested	Uninterested	Positive Affect	Indifferent	Negative Affect

APPENDIX D

SDRCI QUESTIONS

1. What makes you happy?
2. What makes other kids happy?
3. What makes mothers happy?
4. What makes fathers happy?
5. What makes teachers happy?
6. What makes you unhappy?
7. What makes other kids unhappy?
8. What makes mothers unhappy?
9. What makes fathers unhappy?
10. What makes teachers unhappy?
11. What makes you nice?
12. What makes other kids nice?
13. What makes mothers be nice?
14. What makes fathers be nice?
15. What makes teachers be nice?
16. What makes you be not nice?
17. What makes other kids not nice?
18. What makes mothers be not nice?
19. What makes fathers be not nice?
20. What makes teachers be not nice?
21. What makes you smile?
22. What makes other kids smile?
23. What makes mothers smile?
24. What makes fathers smile?
25. What makes teachers smile?
26. What makes you look mean?
27. What makes other kids look mean?
28. What makes mothers look mean?
29. What makes fathers look mean?
30. What makes teachers look mean?
31. What makes you feel good?
32. What makes other kids like you?
33. What makes mothers love you?
34. What makes fathers love you?
35. What makes teachers like you?
36. What makes you angry?
37. What makes other kids angry?
38. What makes mothers angry?
39. What makes fathers angry?
40. What makes teachers angry?

APPENDIX E

ADMINISTRATION INSTRUCTIONS AND SCORING RULES FOR SDRCI

Administration Instructions

After getting acquainted with the child for a couple of minutes, say:

"I am trying to find out what makes children and grown-ups happy and what makes them sad. I would like you to help me. Please listen and answer my questions. Ready?" Start asking the questions in the given order and record each answer verbatim in the provided space. To get a shy or anxious child started, repeat the first question again if necessary, adding: "I am sure you can tell me what makes you happy. Anything you say is going to be fine with me."

Specific questions may be repeated and reworded (e.g. "sad" for "unhappy"), especially with children of minimal language development, and supplemented with facial expression and inflection cues. However, no suggestive answers, or alternative response choices are allowed. Experience shows that "don't know" responses can be essentially totally avoided if probing is sufficiently persistent. Some empathizing with the child's feeling is also helpful in getting him to cooperate ("You feel a little shy and don't know what is the best way to answer my question. That's O.K. Just answer it any way you can").

Some children tend to repeat the same answer to consecutive questions. A repeated response is accepted only once, and then if the child persists make a comment such as "Yes, that's fine; now, let's think of something else that makes teachers happy too."

Occasionally a child will give a "nonsense" response (e.g. "What makes teachers happy?" "Chairs"). Some careful probing without making interpretations for the child or expressing dissatisfaction with the response, may help clarify the child's intentions ("Tell me more about it." "Can you tell me more about the teacher and chairs?").

Some careful probing should also be attempted when the child gives a response in which the actor is an ambiguous "someone" who may and may not be the child himself (e.g. "What makes teachers angry?" "When someone won't keep still").

Interviewers might, unintentionally, selectively reinforce a certain kind of response. Therefore, be careful to systematically reinforce any response by saying "fine," or "O.K.," and encourage the child at predetermined intervals (e.g. after completing a set of 10 items) by saying, "You are doing real well" or "I really like the way you are helping me."

Some children may get bored or tired of answering the questions. Take short breaks when necessary and talk with the child or let him play with the telephone toy or the little car, which will be provided.

General Scoring Rules

1. Score internal for response indicating reinforcement is contingent on the behavior of the subject.

2. Score internal for response for "self," "kids," "boys," or "girls" of same sex as subject.

3. Score internal for responses which indicate knowledge of a general classroom or social rule.

4. Score external for responses indicating generalized affect toward the child without stated cause.

5. Score external for responses which are internal on the part of someone other than the subject.

Scoring Examples
Form A

1. What makes you happy?
   Internal
   Doing good things.
   Riding my bike.
   Myself.
   External
   When people give me candy.
   God.
   Mother.

2. What makes other kids happy?
   Internal
   When I play with them.
   When I let them ride my bike.
   When I give them cookies.
   External
   Doing things their mother tells them to do.
   New toys.
   When they do good things.
   Special cases
   Score internal for responses regarding others which could include the subject.
   Examples: Other kids.
   When their friends play with them.
   When you are nice to them.
   Note: Responses to this item must be internal on the part of the subject, not other children.

3. What makes mothers happy?
   Internal
   If you go to the store for her.
   If you clean your room.
   When kids are quiet.
   External
   When they get new clothes.
   When she buys me a bike.
   Daddy.

4. What makes fathers happy?
   Internal
   When little girls and boys don't fight.
   When kids love him.
   When I be quiet.
   External
   To go to work.
   Mother
   To get new clothes.

Note: Score external for responses showing affect toward child without specific cause.
Examples: He likes children.
He likes to play ball with us.
He is not mad.

5. What makes teachers happy?
Internal
When kids sit in the circle.
When we be good.
When kids are quiet.
External
Clothes.
When she takes us on trips.
God and preachers.

B.1. What makes you unhappy?
Internal
When I fight.
When I get my clothes dirty.
External
When someone hits me.
When I can't go anywhere.
Spiders and frogs.
Special cases
Score internal: When I'm mad at someone.

2. What makes other kids unhappy?
Internal
When someone hits them with a rock.
If I beat them up.
I do.
External
When they can't play in the dirt.
Their mothers and fathers.
When they get whipped.
Special cases
Score internal for behavior type responses which reflect knowledge of general classroom or social rules.
Examples: When they fight.
When they scratch someone.

3. What makes mothers unhappy?
Internal
When you won't be good.
When little kids act up.
Little kids.
External
When daddy won't take her along.
When she has to cook breakfast.
When rats come in the house.

4. What makes fathers unhappy?
Internal
Kids.
If you tell Mother he went out.
Kids screaming.
External
To have to go to work.
When he has to take Mama and the kids with him fishing.
Mother.

5. What makes teachers be nice?
Internal
When I raise my hand.
When you be good.
When kids help her.

D.1. What makes you be not nice?
Internal
When I don't like somebody.
Fighting.
When you don't let someone play with your things.
External
When Daddy whips me.
When Mother tells me to get out of the kitchen.
Kids. (Can't include subject)
Special case
Score internal for aggressive feelings.
Example: When I'm mad at somebody.

2. What makes other kids not nice?
Internal
When other kids don't be nice to them.
If you hurt them.
External
When they have to go to bed.
When they're bad.
If they have to do work.
Note: Responses must be internal on the part of the subject.
Special cases
General classroom or social rules.
Example: If they throw sand on the teacher.

3. What makes mothers be not nice?
Internal
Little kids.
When we don't wash our hands for dinner.
When kids be bad.
External
When they have to go to work.
The baby crying.
Because a gerbil bit me.

4. What makes fathers be not nice?
Internal
Little kids.
When kids disobey.
Kids screaming.
External
He's just mean.
When they're mad at people.
Headaches.

5. What makes teachers unhappy?
Internal
If kids play when they should work.
When kids be bad.
If you mess up the school.
External
To be mad.
When Randall always worries her.
She doesn't like kids.

D.1. What makes you be nice?
Internal
Petting my puppy and cat.
When I share.
When we play at school.
External
Teacher.
When mother takes me to the store.
Food.

2. What makes other kids be nice?
Internal
Friends.
When kids let them play with their toys.
When I give them candy.
External
Riding bikes.
Teacher.
Food.

3. What makes mothers be nice?
Internal
When kids help her.
When the teacher tells her the kids are being good.
When you obey her.
External
When the police caught the bad man.
Father.
When Father is happy.

4. What makes fathers be nice?
Internal
When I'm a good boy.
When I be nice.
When Mother tells him the kids were good.
External
Playing basketball with his friends.
When he comes home.
To go to work.

5. What makes teachers be not nice?
Internal
Little kids.
When we don't love her.
If we don't feed the gerbils.
External
When she is sick.
My mama because she got mad at the teacher.
God.

Form B

A.1. What makes you smile?
Internal
When I'm busy.
When I be good.
External
When someone gives you something.
The sun.
When people tickle me.

2. What makes other kids smile?
Internal
If you buy them something.
If you share with them.
If I play with them.
External
When they obey.
When they get new clothes.
When they eat lunch.

3. What makes mothers smile?
Internal
When she comes home and you have been good.
When you buy them presents.
Kids.
External
When Daddy comes home.
When she's happy.
When Daddy kisses her.

4. What makes fathers smile?
Internal
When kids be good.
When you do something for him.
When I sit on his lap.
External
When he's happy to see his friends.
When he has lots of money.
When he can go to work.

5. What makes teachers smile?
Internal
When kids be quiet.
Good kids.
When you do something right.
External
When things are funny.
The sun.
When my Daddy comes to talk to her.

B.1. What makes you look mean?
Internal
When I mess up when I write,
When I'm going to fight someone.
If I don't share.
External
If kids fight me.
My mother.
When I can't go outdoors.

2. What makes other kids look mean?
Internal
If I hit them.
When you close the door on them.
If someone hits them.
External
If they cry.
The devil.
When they can't go out.

3. What makes mothers look mean?
Internal
Kids.
If you fight.
If you don't shut up.
External
If Father beats her up,
If the baby spills his food.
When she falls in the river.

4. What makes fathers look mean?
Internal
If I hit him.
When someone messes with him.
If kids eat with dirty hands.
If we be bad.
External
If the baby jumps on him.
When Mama yells at him.
When he paints.

5. What makes teachers look mean?
Internal
When kids act bad.
When we don't act right.
When I be noisy.
External
When the dog bites her.
When the man didn't bring the food.
When she's mad.

C.1. What makes you feel good?
Internal
When I'm good.
Because I like boys and girls.
If I share.
External
When we go to the airport.
Mama.
Teacher.

2. What makes other kids like you?
Internal
Because I play with them.
When I'm their friend.
If you share.
External
They don't like me.
Because they are happy.
Because we can take our toys out.

3. What makes mother love you?
Internal
When I go to school.
Me.
When I'm real happy.
External
When she sends you outdoors.
Because she likes us.
Because she's happy.

4. What makes father love you?
Internal
When you be good.
When you're happy and smile.
When you go to bed when he says to.
External
Because he likes me.
Because he's happy.
Because he likes little people.

5. What makes teacher like you?
Internal
Because I'm a good girl.
When we play good.
When I beat the boy up.

D.1. What makes you angry?
Internal
Myself.
When mama yells at me for getting muddy.
When I cry.
External
When I get whipped.
Little kids (Can't include subject).
No food.

2. What makes other kids angry?
Internal
If people hit them.
If you tell on them.
If you fight with them.
External
When they have to go in the other room.
Because they can't play.
When they have to take their clothes off.

3. What makes mothers be angry?
Internal
Kids.
If kids run away.
If you do something bad.
External
My brother.
To have another baby.
Daddy.

4. What makes fathers angry?
   Internal
   Little kids.
   When kids be bad.
   When he tells you to do something and you don't.
   External
   When he can't eat.
   When he fusses at the kids.
   Because he don't like police.

5. What makes teachers mad?
   Internal
   When I don't be good.
   If we fight.
   External
   If she's not happy.
   Because she doesn't like boys.
   She's a lady.

APPENDIX F

RATING INSTRUCTIONS TO TEACHERS

Dear Teacher:

Attached you will find the list of children from your class, which are included in our study, and a pack of cards with each child's name on one of the cards.

I. You are asked to group the children into 4 groups, according to the relative frequency with which they show behaviors that reflect "active consideration for others."

The "actively considerate" child typically acts in all or some of the following ways:

- -helps another child in need of assistance or in distress
- -willingly shares (toys, materials, food, etc.)
- -comforts another child and reassures him in words or action (e.g. "don't cry," a hug, etc.)
- -protects and defends another child and his materials or rights, in words or in action (e.g. "he had it first," pushing away someone attacking another child)
- -asks about or points out to an adult someone in distress
- -punishes the cause of someone's distress (e.g. not talking to someone who hits others)

The 4 groups into which you are being asked to assign the children are:

a) High in consideration for others--the children in this group when compared to the others almost always or very frequently (when the opportunity arises) show active consideration for others. Please assign exactly ____ children to this group: ___boys and ___girls.

b) Medium-High--the children in this group, when compared to the others, frequently or often show active consideration for others. Please assign exactly ___ children to this group: ___boys and ___girls.

c) Medium-Low--the children in this group, compared to others, sometimes or occasionally show active consideration for others. Assign exactly ____ children to this group: ___boys and ___girls.

d) Low--the children in this group, compared to the others, rarely or never show active consideration for others. Assign exactly ____ children to this group: ___boys and ___girls.

Please do this task by putting the cards bearing the children's names in four piles according to the requested

number in each category. You may play with the cards, move them from pile to pile while making up your mind.

We suggest that you start the grouping procedure by thinking of the one child who is extremely high in consideration for others and the one child who is extremely low in consideration for others (compared to all the other children being rated). Then, divide the remaining cards into the 4 piles, by assigning the required number of children in each one. Also try to assign the required number of boys and girls in each one of the 4 piles. Please rate boys in comparison to the other boys, and girls in comparison to the other girls.

Take your time and play around with the cards. When you are satisfied with the piles you created, and you have managed to make them up according to the instructions, write down the names of the children in each pile.

1. 2. 3. 4. 5. 6.	1. 2. 3. 4. 5. 6. 7. 8.	1. 2. 3. 4. 5. 6. 7. 8.	1. 2. 3. 4. 5. 6.
Low	Medium-Low	Medium-High	High
(rarely) Assign:	(sometimes) Assign:	(often) Assign:	(very frequently) Assign:

ACTIVE CONSIDERATION FOR OTHERS

II. Repeat the same grouping procedure now for a different dimension: anti-social behavior. The child who shows anti-social behaviors typically acts in some or all of these ways:

-laughs or criticizes someone in need of assistance or distress
-attacks other child or his materials (pushes, pulls, hits, destroys, curses)
-actively objects to sharing materials with others
-refuses to cooperate with others

The children who are "high" in anti-social behavior are those who show these behaviors very frequently, when compared to others. The children who are "low" in anti-social behavior are those who, as compared to others, rarely or never show these behaviors.

Do this rating independently of the previous rating (so that a child that was assigned to the "high" group in active consideration for others can also be rated as "high" in anti-social behavior). Try to put the same number of children required in the previous rating, in each group.

1. 2. 3. 4. 5. 6.	1. 2. 3. 4. 5. 6. 7. 8.	1. 2. 3. 4. 5. 6. 7. 8.	1. 2. 3. 4. 5. 6.
Low	Medium-Low	Medium-High	High
(rarely) Assign:	(sometimes) Assign:	(often) Assign:	(very frequently) Assign:

ANTI-SOCIAL BEHAVIOR

Thank you very much,

Professor J. P. McKinney

Esther Cohen

APPENDIX G

RELIABILITY OF MEASURES

Verbal Measures of Empathy

Intercorrelations were computed among the empathy scores, obtained on the basis of the subjects' verbal reports of their feelings, for each of the four stories. Table 12 presents these correlations, and also the correlations of each of these scores with the scores obtained for the two pairs of stories, each depicting a particular affective situation, and the two pairs involving similar stimulus figures. The table also includes the correlations between the empathy scores obtained for the different stories and the total empathy score.

The correlations indicate adequate internal consistency for the four stories. The correlation between the "happy" stories and the total empathy score ($r=.79$) is significantly lower, however, than the correlations of the "sad" stories with the total score ($r=.91$), based on a test for significance between two correlations ($Z=2.68$; $p<.01$). Higher empathy scores were obtained for the "happy" stories as compared to the "sad" stories. The means and standard deviations obtained for each story are presented in Table 13. The difference is highly significant ($t=5.93$; $df=142$; $p<.001$).

All the subjects demonstrated adequate comprehension of the affective situation described in the stories in their

Table 12.--Zero-order inter-correlations matrix of empathy scores for all stories and total empathy scores, based on the verbal report (N=72).

	S/G	S/B	H/G	H/B	S/G+S/B	H/G+H/B	S/G+H/G	S/B+H/B	Total
S/G	...								
S/B	.47***	...							
H/G	.18*	.37***	...						
H/B	.38***	.35***	.29**	...					
S/G + S/B	.85***	.86***	.33***	.43***	...				
H/G + H/B	.36***	.45***	.76***	.85***	.47***	...			
S/G + H/G	.87***	.56***	.65***	.44***	.82***	.66***	...		
S/B + H/B	.53***	.87***	.41***	.77***	.81***	.75***	.61***	...	
Total	.76***	.81***	.58***	.69***	.91***	.79***	.88***	.91***	...

Note: S/G = Sad affective situation, girl stimulus figure.
S/B = Sad affective situation, boy stimulus figure.
H/G = Happy affective situation, girl stimulus figure.
H/B = happy affective situation, boy stimulus figure.
Total = S/G + S/B + H/G + H/B

*p<.10
**p<.01
***p<.001

responses to the relevant questions. Thus, all the empathy scores obtained may be said to reflect accurately perceived feelings of others. Accurate perception of an affective situation did not, however, relate directly to sharing of the perceived feelings, at least according to the subjects' verbal reports.

Table 13.--Means and standard deviations of empathy scores for the stories, based on the verbal report (N=72).

	S/G	S/B	H/G	H/B	S/G+S/B	H/G+H/B
Mean	.62	.53	.89	.82	1.15	1.71
S.D.	.49	.50	.32	.39	0.85	0.57

Non-Verbal Measures of Empathy

Inter-rater reliability of ratings of the subjects' non-verbal affective cues was determined by computing the percentage of identical ratings given by the two raters out of the total number of ratings. The raters agreed on 68 per cent of their ratings

Each rating was also assigned into one of two categories according to whether it was later scored as empathic or non-empathic. This was done to enable a determination of the extent of agreement between the raters as it was reflected in the obtained non-verbal measure of empathy. Thus, each rating by each rater was compared using two

possible scores: empathic or non-empathic, instead of the three original possible scores (happy, indifferent or sad). Using this coding procedure, the percentage of agreements between the raters increased from 68 per cent to 84 per cent. The percentages of agreement between the raters, although not extremely high, may be considered to reflect a fair degree of inter-rater reliability.

Table 14 presents the intercorrelations among the empathy scores obtained from the ratings on the subjects' non-verbal affective cues for the four stories, the paired combinations of the stories, and correlations between these scores and the total empathy scores.

While the intercorrelations within the stories depicting the same affective situation and the same stimulus figure are high, the correlations between the scores obtained for the happy and for the sad stories and for the boy and girl stories are not significant. The .54 correlation between the happy stories and the total score, although significant, is not very high as compared to the correlation of the sad stories with the total score ($r=.86$). The latter correlation is significantly higher than the former ($Z=4.06$; $p<.001$).

The total empathy score based on ratings of non-verbal affective cues seems to reflect to a larger extent emotional reactions to the sad stories, rather than to the happy stories, and the reactions to the different affective situations appear to be unrelated.

Table 14.--Zero-order inter-correlations matrix of empathy scores for all the stories and total empathy scores, based on the non-verbal measure.

	S/G	S/B	H/G	H/B	S/G+S/B	H/G+H/B	S/G+H/G	S/B+H/B	Total
S/G	...								
S/B	.21*	...							
H/G	.01	.09	...						
H/B	-.13	.08	-.07	...					
S/G + S/B	.79***	.76***	.07	-.03	...				
H/G + H/B	-.08	.13	.69***	.67***	.67***	.03	...		
S/G + H/G	.83***	.22*	.58***	-.15	.69***	.32**	...		
S/B + H/B	.09	.83***	.03	.62***	.58***	.47***	.09	...	
Total	.62***	.71***	.42***	.32**	.86***	.54***	.75***	.73***	

*p<.10
**p<.01
***p<.001

Table 15 presents the mean empathy scores and standard deviations for the four stories. The scores for the sad stories are significantly higher than the scores for the happy stories ($t=2.69$; $df=142$; $p<.01$).

Table 15.--Means and standard deviations of empathy scores for the stories, based on the non-verbal measure (N=72).

	S/G	S/B	H/G	H/G	S/G+S/B	H/G+H/B
Mean	1.35	1.32	.92	.78	2.67	1.69
S.D.	1.73	1.63	1.20	1.15	2.61	1.60

Internal consistency is, therefore, less than adequate when using the total score based on the non-verbal measures of empathy.

All the subjects appeared to be interested in all the stories according to the ratings of "interest." All the subjects received a rating of "interested" at least at one of the three rating points during each story, and most of them were judged to be interested throughout the four stories. The interest ratings were not analyzed further because of the very small variance obtained, and were just interpreted as demonstrating the adequate interest aroused by the stories.

Stephens-Delys Reinforcement Contingency Interview (SDRCI)

Inter-rater reliability for the total scores of the SDRCI was computed and found to be high (r=.97). Internal consistency of the SDRCI was determined by computing the correlations between internal scores obtained for each of the subsets of the questionnaire with the total score. This was done since the SDRCI is a relatively new instrument and since it has been used in this study with a different population than that reported by Stephens and Delys (1973).

The correlations between the items reflecting the different reinforcement agents, the different consequences (positive and negative) and the total scores are presented in Table 16.

Table 16.--Zero-order correlations between total "internal" scores on the SDRCI and the ten subsets of the instrument (N=72).

Total "Internal"		Total "Internal"	
Self --Positive	.10	Self --Negative	.05
Peers --Positive	.67*	Peers --Negative	.45*
Mother --Positive	.86*	Mother --Negative	.80*
Father --Positive	.80*	Father --Negative	.77*
Teacher--Positive	.73*	Teacher--Negative	.71*
Sum --Positive	.91*	Sum --Negative	.91*

*p<.001

The correlations between all the subsets of the instrument and the total score are significant at the .001 level, except for the two subsets involving "self" as the reinforcing agent (self/positive and self/negative), which do not correlate significantly with the total score. The correlation of the "self" items with total SDRCI scores appears lower than the one reported by Stephens and Delys (1973) but the trend of intercorrelations is similar.

The findings suggest that awareness of control of personal consequences is rather different from awareness of control of interpersonal consequences. The mean score obtained for the "self" reinforcement items is lower than that obtained for any of the other sets of items. This difference reaches significance only for the "mother" items ($t=3.45$; $df=70$; $p<.01$) and "teacher" items ($t=6.75$; $df=70$; $p<.01$). In general, however, the internal consistency seems adequate.

Prescriptive Versus Proscriptive Value Orientation

The reliability of the "prescriptive" orientation measure was tested for by using the split-half technique. The two halves of the instrument are considered to be two equivalent parts. The reliability coefficient for the total sample was .52, which is rather low. It is, however, not significantly different from the reliability obtained by McKinney (1971) in an instrument especially developed to

measure value orientation. Inter-rater reliability was found to be satisfactory (r=.95).

The older subjects tended to obtain higher "prescriptive scores (t=1.80; df-70; p<.10).

While it is not an hypothesis designed to be tested in the study, it is interesting to note that "prescriptive" scores correlated significantly with the verbal measure of empathy for the total sample (r=.20; p<.05).

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