STUDIES OF EMPATHIC BEHAVIOR IN CHILDREN

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I. The Construct of Empathy

A. INTRODUCTION

The study of personality processes, always a challenging inferential task, becomes especially elusive when children become the primary focus of inquiry. The changing kaleidoscope of development, accelerated in the young child, exaggerates the problem of defining regularities in individual differences and dynamic relationships. Children's response systems are not yet highly differentiated nor are their verbal repertoires sufficiently elaborate to convey their perceptions and experiences. Superimposed upon the problem of accessibility to those aspects of the person that are internal and private are issues of theoretical
definition and clarity. These ever present conceptual and methodological considerations are particularly manifested in the study of empathy in children.

The phenomenon of empathy occupies an unusual place in contemporary psychological writings. It is considered to be a critical determinant of social transactions, ranging from the behavioral interchange between mother and infant to the intimacy and effectiveness of communication in the dyadic relationship between therapist and client (Hoffman, 1970; Sullian, 1953). Both historically and currently, empathy has been afforded a key role in the development of social understanding and positive social behaviors (Aronfreed, 1968; Mead, 1934; Murphy, 1937; Piaget, 1932; Piaget & Inhelder, 1956; Staub, 1971). Yet, despite its acknowledged importance as a major interpersonal dimension, empirical research on empathy does not parallel its theoretical salience.

In recent years, as interest has shifted from concerns with the darker aspects of personality toward the positive dimensions of the person, investigation focusing on the parameters of empathic behavior have emerged (Berger, 1962; Gergen, Gergen, & Meter, 1972; N. Feshbach & Roe, 1968; Stockland, Sherman, & Shaver, 1971). While most of the earlier research efforts on empathy dealt primarily with adults, the current resurgence of interest in this area has embraced a wider age range including young children. It is this latter age group to which this analysis and review of empathic behaviors will be primarily addressed. The principal focus of this chapter will be on a series of interrelated studies bearing on situational parameters, individual differences, and developmental antecedents affecting empathy in preschool and primary grade children. The relationship of empathy to other socially relevant behaviors will also be examined in connection with this research program.

In view of the sharply diverse conceptions of empathy, both historically and contemporaneously (Ehmann, 1971), a consideration of alternative definitions and approaches to its examination is required before presenting the finding of these studies. In this process, the special methodological issues inherent in the study of empathic behavior will be discussed. Finally, the conceptual framework guiding this research program on empathy will be presented.

B. THE CONCEPT OF EMPATHY: DEFINITIONS AND CONNOTATIONS

1. Affective Orientations

One of the earliest references to the concept of empathy appeared in the writings of the German psychologist, Theodore Lipps, who labeled the phenomenon "einfühlung," the literal translation of which means "feeling into another" (Katz, 1963). The term einfühlung was used to describe the process by which an observer takes on the emotion and "motor attitudes" of another person as re-
flected in the responses of spectators to performances of others and even to the appreciation of the emotions conveyed in a work of art. Lipps' choice of the term *einfühlung* to describe these experiences in contrast to the term *mitfühlung* (feeling along with others), presages the later theoretical efforts to distinguish the process of empathy from sympathy. However, the most critical aspect of this historical note is the emphasis given to the vicarious sharing of an affective experience, an emphasis that continues to be represented in major contemporary approaches to the understanding of empathic behavior.

The importance of the affective dimension of empathy is evident in McDougall's (1908) use of this concept in describing the primitive process of emotional contagion that sometimes takes place in group situations. A similar process is also posited by Sullivan (1953) in his description of the emotional communion between infant and mother. For both McDougall and Sullivan, the empathic reaction is an undifferentiated, fairly automatic, essentially unlearned emotional reaction. A somewhat more complex process is suggested by Freud (1921–1950), who indicated that "empathy... plays the largest part in our understanding of what is inherently foreign to our ego" (p. 50). He further noted that empathy was related to the mechanism of identification: "A path leads from identification by way of imitation to empathy, that is to the comprehension of the mechanism by means of which we are enabled to take up any attitudes at all towards mother's mental life" (p. 53). The clearest operational statement of the psychoanalytic position is offered by Fenichel (1954) who viewed empathy as an affective consequence of the mechanism of identification. In this account, "empathy consists of two acts: (a) an identification with the person; and (b) an awareness of one's own feelings after identification, in this way an awareness of the object's feelings" (p. 511).

While these various approaches differ in explanation and description, the focus on the affective response of the observer is a common thread linking this cluster of early definitions. This focus on the affective component goes beyond the understanding of the emotional experiences of the observed other, requiring an affective experience in the observer as a necessary requisite for empathy. A number of contemporary investigators have applied a similar requirement in their use of the term empathy.

Berger (1962), in the context of studying the affective reactions of adult subjects witnessing stimulus persons in aversive situations, proposes that empathy is a conditioned emotional response acquired through vicarious investigation, defining the phenomenon as a match between the affective response of the subject and the affective state of the stimulus person. Stotland and his co-workers in their extensive series of studies of empathic behavior in adults have utilized a similar definition (Stotland, 1969; Stotland & Dunn, 1963; Stotland & Walsh, 1963). In their work, empathy was operationalized as a negative emotional reaction to perceiving a model experiencing pain and a positive reaction to the
perception of a model experiencing pleasure. Both physiological measures and subjective self-reports were employed to assess the empathy response.

The affective response of the observer also assumes a salient role in the studies of empathy in children carried out by Aronfreed (1968) and by N. Freshbach and her colleagues in the series of studies to be reviewed in this chapter. In the latter group of studies, the empathic response, while involving an emotional reaction, is conceptualized as contingent upon cognitive factors. Nevertheless, the requirement of an affective correspondence between the emotional experience of observer and observed remains a critical dimension of the empathic response, distinguishing the affective approaches to empathy from those employing predominantly cognitive criteria.

2. Cognitive Orientations

An early formulation of empathy in predominantly cognitive terms appeared in the writings of George Herbert Mead (1934). A critical element in his theorizing was the acquisition of social empathy through role taking and imitation. For Mead, empathy facilitated social interaction, since through this process a person could anticipate another’s actions and be alerted with an appropriate response. The context of play in which the child behaves in an “as-if” manner is where the cause and effect factors of social interaction and transactions are learned. Although Mead suggested that empathy involved feeling as well as thinking, it was the latter component that was predominant in his conceptualization of the term. Mead’s attention to the activity of role playing anticipated an essential feature of cognitive definitions and explanation of the phenomenon of empathy. This account was also conducive to the construction of the empathic process as a mechanism for predicting the attitudes and behaviors of other people.

Many of the elements of Mead’s exposition found experimental expression in Dymond’s (1949) pioneering efforts to develop an objective measure of empathy. Viewing the empathic process as the imaginative transposing of oneself into the thinking and acting of another, Dymond developed several measures that were designed to assess an individual’s ability to judge another person’s self-report and reactions (Dymond, 1949, 1950; Dymond, Hughes, & Raabe, 1952). Unfortunately, the procedure used, which is dependent upon the correlation between the observer’s or judge’s predictions and the self-report of the stimulus person, poses a number of difficult methodological problems that render the findings ambiguous. Cronbach (1955) has shown that the “accuracy” measure is subject to spurious correlations reflecting scale tendencies, projection, and item dispersion. The problem of distinguishing the different components of variability on empathy measures led to a diminished use of predictive empathy research and continues to be a methodological issue for other empathy assessment procedures (Iannotti, 1975).
A very different approach to the study of "accurate" empathy was taken by Truax (1961, 1967, 1972) in his effort to assess Rogers' (1957) conception of therapeutic empathy. The Truax scale is used to rate the degree of a therapist's empathy from samples of actual therapy sessions. Rogers and Truax (1967) define accurate empathy, as assessed by this method, as the ability of the therapist to understand the experiences of the client and also to reflect and communicate back the meaning of those experiences. Thus, as Truax and Carkhuff (1967) note, empathy in the Rogerian framework is primarily a cognitive rather than an emotional process. While this conception of empathy involves therapeutic sensitivity to the feelings and needs of the client, it does not entail the therapist's sharing of the client's emotional experience. The therapeutic sharing of a client's emotional state remains a critical clinical issue in the field of professional practice (Buchheimer, 1963; Katz, 1963). As a parenthetical note, while the psychoanalytic model of empathy is an affective one, the psychoanalytic model of therapy does not imply that the analyst be emotionally empathic with the analysand. In this regard the analytic and Rogerian positions are congruent, the cognitive sensitivity to the client's feelings, attitudes, and desires being the relevant therapeutic dimension.

The therapist-client interaction has also been used to assess the affective sensitivity of naive subjects to the client's feelings about themselves and their counselors as depicted in videotaped sequences (Cambell, Kagan, & Krathwohl, 1971; Danish & Kagan, 1971). Especially relevant to our concerns is the explicit focus on interpersonal perception, an approach to empathy which is very much at issue in the literature on children's empathy (Shantz, 1975). Cognitive approaches to empathy in children have considered this phenomenon from related but theoretically different perspectives.

At the broadest level, empathy can be viewed as essentially synonymous with social understanding and person perception (Taguiri, 1969). Empathy has been more specifically defined as the ability to discriminate and identify the emotional state of others (Borke, 1971). Other cognitive models, while applying the concept of empathy to the understanding of emotions in others, reserve the term for more complex levels of cognitive functioning than those implicated in the simple identification of emotions (Chandler, 1974; Chandler & Greenspan, 1972). Specifically, it is argued that empathy, or true empathy, is contingent upon role-taking skills and the ability to assume the perspective of another individual. Whether empathy is defined as the ability to distinguish and label affects in others, as contrasted to the ability to assume a nonegocentric role-taking perspective, is an issue that has acquired theoretical significance, especially for the Piagetian derived model of social development. For this latter theoretical position, nonegocentric thought is a necessary precondition for empathy. Therefore, preschool aged children whose thinking is primarily egocentric would not be
"truly" empathic. Nonegocentric thought, in the sense intended by Piaget (1932), is not simply a synonym for accurate social judgment but implies the ability to anticipate what someone else might think or feel precisely when those thoughts and feelings are different from one's own (Chandler & Greenspan, 1972). A considerable amount of the empirical literature bearing on empathy in children involves efforts to gain greater insight into the particular cognitive processes contributing to the empathic response.

C. Social Cognitive Approaches to Children's Empathy

An examination of the literature falling under this rubric makes evident the degree to which methodological concerns are intertwined with conceptual issues regarding the empathic process and response. Most of the current research efforts dealing with the development of social cognition, including empathy in children, have been derived from cognitive theories, especially Piaget's (Piaget & Inhelder, 1956). Thus, the mechanisms and processes of social cognition which focus on the organization and structuring of the child's social environment are highly analogous to the developmental processes and changes that punctuate the development of the child's understanding and structuring of the physical environment (Feffer & Gourevitch, 1960; Looft, 1972). It is posited within this theoretical framework that the child's comprehension and understanding of the social environment, while initially immature and egocentric, develops into a more mature cognitive state characterized by the ability to assume the perspective of other individuals. Being able to view the world visually, cognitively, and socially from the perspective of others, is contingent upon the development of role-taking skills which appears to be related to the child's ability to infer the perceptual activities and experiences of another person (Flavell, Botkin, Fry, Wright, & Jarvis, 1968). The child who is egocentric, who still has not developed the ability to decenter, is said to be deficient in role-taking skills (Chandler, Greenspan, & Barenboim, 1974). Thus, the Piagetian concept of decentering has been extended to role-taking activity, but not role-taking in the classic social role sense of the term. Rather 'role-taking' is considered as opposite or antithetical to egocentric activity, and refers to the ability to take the position or perspective of another person, a view highly similar to the definition originally offered by Mead (1934) and currently subscribed to by Kohlberg (1969).

It is assumed that until the age of six the child is egocentric and does not distinguish his or her own view of social situations from other possible views (Selman & Byrne, 1974). It is further suggested that from approximately 6 to 10 years of age, the ability to infer accurately the other's intentions, feelings, and thoughts develops, as well as the ability to understand that another person can also infer the child's thoughts. This ability to infer accurately the intentions of
others and reciprocally share perspectives is considered as genuine empathy by Chandler (1974).

From this cognitive perspective, the simple identification of the feelings and reactions of another person (accurate empathy) is not a sufficient criterion for empathy. What is particularly critical is the cognitive process by which this identification is achieved, namely through decentering, or role-taking perspective. Thus, the demonstration of children's ability to discriminate the affective expression most appropriate to a particular social situation (Borke, 1971, 1973) has been rejected as a process equivalent to empathy (Chandler & Greenspan, 1972) which from a more developmental cognitive point of view requires the acquisition of a role-taking perspective as a necessary condition for empathic behavior.

Several different research paradigms have evolved in this cognitively based approach to children's empathy. One set of studies has focused on the egocentric communication skills of young children and related this aspect of the child's development to other measures of social understanding, popularity, and social competency (Deutsch, 1971, 1974; Rothenberg, 1970; Rubin, 1972). In many of these studies it is difficult to separate language fluency from social comprehension skills. Another research approach has focused on the relationship between role-taking skills, referential communication, and social deviancy. In these studies, samples of children manifesting social and emotional problems are compared to control groups on role-taking skills. After demonstrating the absence of role-taking skills, as assessed by the presence of indices of egocentric thought, various training programs are initiated in role-playing behavior. The findings from these studies indicate that the intervention programs result in a significant improvement in both role-taking and prosocial behaviors (Chandler, 1973; Chandler, Greenspan, & Barenboim, 1973; Chandler et al., 1974).

D. AN INTEGRATIVE APPROACH TO CHILDREN'S EMPATHIC BEHAVIOR

Cognitive approaches to empathy, while varying in the complexity of the assumed mediating process or cognitive activity, essentially view it as equivalent to some form of social cognition. When empathy is defined solely in cognitive terms, it appears to have little theoretical utility beyond that contributed by the cognitive functions themselves: that is, empathy becomes a concept without surplus meaning or special theoretical properties (N. Feshbach, 1973b). One could substitute discrimination of interpersonal affective cues, or role-taking perspective, for the term empathy without any loss of explanatory power. Flavell (1971), in a paper on the development of social inference, enumerates along with empathy, the following alternative designations of processes investigated in the
field of person perception: "interpersonal inference, person cognition, social perception, social cognition, social sensitivity, social acuity, clinical inference, clinical intuition, diagnostic competence, impression formation, naive psychology, implicit personality theory, role taking, role playing, role perception, the attribution . . . , identification, insight" (p. 2).

A major definitional question is whether empathy is a construct synonymous with one or more of the cognitive processes involved in social understanding or whether, as a process or a response, it has unique behavioral properties warranting its distinction from the cognitive mechanisms to which it is obviously related. In terms of the historical origins and applications of the concept, it would appear that the distinctiveness of empathy, phenomenologically and theoretically, lies in its affective dimension. It is the shared emotional experience, possibly accompanied by the "motor mimicry," alluded to by Lipps (1908, cited in Katz, 1963) at the turn of the century, that distinguishes empathy from the cognitive skills and processes mediating social cognition and person perception.

One contributing factor to the widely contrasting cognitive versus affective conceptions of empathy, may be a confusion between process and product. Thus, it is possible to conceptualize empathy as a cognitive product mediated by emotional factors or as an affective response mediated by cognitive processes. Further, by virtue of the complexity of social cognition and interaction whereby products or responses acquire cue value and become incorporated into a feedback system, it becomes almost an arbitrary decision to specify the sequence of affect and cognition. At a broader level, empathy may be conceptualized both as an affective response mediating social understanding and also as a consequence of social understanding: it may influence cognitive judgments and may in turn be dependent upon particular cognitive processes. As some of the ensuing research will indicate, empathy can be linked to noncognitive as well as cognitive antecedents and consequences.

Superimposed upon this nonproductive dichotomy between affective and cognitive approaches are the diverse phenomena to which the label empathy has been ascribed. For example, empathy has been used interchangeably with sympathy, compassion, kindness, projection, intuition, sentimentality, and emotionality. The definition that has guided our own research on empathy, and which is consistent with that of Berger (1962) and Stotland and Walsh (1963), restricts the empathy reaction to a match in affective response between subject and object. Thus, a sympathetic emotional reaction, although like empathy implying an understanding of the emotional state of another person, is not equivalent to and should be distinguished from an empathic reaction.

Similarly, projection, although an important factor in social cognition and closely related to empathy, should be distinguished from the latter. Whereas both projection and empathy entail a sharing of emotional attributes between subject and object and appear to be affected by similar parameters, the direction of the
reaction is different (Feshbach & Feshbach, 1963; Feshbach, Singer & Feshbach, 1963; Stotland & Walsh, 1963). In the case of projection, characteristics of the subject or perceiver are attributed to the stimulus object while in an empathic situation, the subject assumes the emotional attributes of the stimulus person. If a child is feeling angry and because of this mood perceives other people as hostile, this would be an example of projection. However, if a child feels angry after witnessing another person's manifestations of anger, that process would be labeled as empathic. Also, empathy is usually a more veridical response, contingent upon social understanding, while projection, by its very nature, implies some cognitive distortion. Empirically, the discrimination between empathy and projection varies with the particular assessment procedures employed in the study of empathy. This issue will be considered further in the context of the review of specific experimental findings.

Empathy, unlike most other personality constructs, requires an assessment of both subject and object since the empathic response is a reflection of the relationship between the two (N. Feshbach & Kuchenbecker, 1974). This is particularly the case for such approaches to empathy as the one presented here, in which the construct is defined as a match between the affective response of a perceiver and that of a stimulus person. In terms of this conceptual approach, an assessment of cognitive judgments as well as affective responses is also required since, from this perspective, an adequate understanding of empathy must take into account both cognitive and affective factors. Of course, in particular experimental situations where the cognitive properties of the stimulus are well established, it may not be necessary to assess this component separately.

A three component model of empathy, involving cognitive and affective elements has guided and evolved from the research presented below (N. Feshbach, 1973b, 1975a; N. Feshbach & Roe, 1968; Feshbach & Feshbach, 1972). Two of these components are cognitive in nature: the ability to discriminate and label affective states in others and the ability to assume the perspective and role of another person, the latter reflecting a more advanced level of cognitive competence. Emotional capacity and responsiveness constitute the third component. In terms of this schema, all three elements are necessary in order for the empathic response to occur. Most likely the child's capacity for empathy changes in accordance with the child's experiences and developmental advances, in the ability to differentiate and recognize the affective implications of expressive cues and in the child's shift from an egocentric to an allocentric perspective. The cognitive changes may continue into adulthood, as evidenced by the importance which different therapeutic orientations ascribe to empathy in the training of psychotherapists (Katz, 1963).

As with the cognitive dimensions of empathy, the affective component is also subject to development and modification through learning experiences. Thus, Aronfreed's (1968) research indicates that the affective response to the experi-
ence of others is not instinctive but depends, at least in part, upon the child's having previously experienced that affect. On a broader level, it is suggested that those aspects of the socialization process that relate to the experience, expression, and restraint of feeling are highly relevant to the development and manifestation of empathy. One of the studies discussed below is addressed specifically to the socialization antecedents of empathy.

The three component model of empathy that is being suggested here should be considered as a framework from which a detailed theoretical formulation might evolve. It appears compatible with a developmental approach to the study of behavior in that it recognizes that each component is responsive to developmental influences, independently and interactively. Thus, the factors influencing empathic behavior may vary at different age levels and, in addition, the quality and complexity of the empathic response may change with age. The central task at this stage of our understanding of the phenomenon of empathy is the acquisition of systematic data, bearing on the assessment and functional properties of empathy, to which theoretical models can be applied.

II. The Research Paradigm

A. The Measurement of Empathy

The difficulties evident in the conceptualization of empathy are reflected in the methodological problems entailed in its assessment. Aside from the fact that investigations of empathy have been carried out primarily with adults, there is a paucity of available instruments for measuring empathy. With the exception of the type of procedures utilized by Stotland and his co-workers (Stotland, 1969), empathy measures have tended to evaluate some aspect of social cognition and either ignore or reject the affective concomitant. Thus, the first task that faced us a decade ago was to develop a measure of empathy that would be appropriate for use with children (preschool and early elementary age) and that would permit the evocation and assessment of a more affectively based response.

In order to facilitate the evocation of affect, cognitive cues denoting affect were presented in as articulated and explicit a form as possible. Thus, pictures of real children were used instead of stick figures, cartoons, or caricatures (Chandler et al., 1974; Gordon, 1934; Hobart & Fahlberg, 1964–1965); a sequence of pictures (slides) resembling a vignette was employed, instead of single pictures or situations (Borke, 1973); and both visual and auditory information were provided rather than visual or auditory alone (Deutsch, 1974; Izard, 1971; Mood, Johnson, & Shantz, 1974). These procedures were selected to enhance the affective involvement of the observer. Also, by maximizing the clarity of the affective cues by including both situation and child in the stimulus presentation, it was
hoped to minimize variability in empathy arising from variations in social comprehension, thus allowing for the analysis of other experimental effects.

A series of slide sequences depicting 6- to 7-year-old children in a variety of different affective situations was developed. Interviews were conducted with first and second grade children, teachers, and mothers in an effort to identify modal situations that evoke strong affects in children. Among the initial affects considered were happiness, sadness, fear, anger, jealousy, and shame. While the mothers and teachers readily distinguished among the six different affects, the children had difficulty expressing and interpreting situations relevant to shame and jealousy as discrete from sadness and anger. Consequently, the affects included for study were happiness, sadness, fear, and anger.

From an initial array of enacted situations depicting the selected affects, a final subset of sequences, rated by a group of psychologists and by a sample of children as best reflecting the intended emotion, was chosen. Each sequence consisted of three slides. There were two sequences for each of the affects of happiness, sadness, fear, and anger. In addition, two alternate sets of these eight situations were prepared, each set identical in content but different in terms of the sex of the stimulus figure. The following themes were used for each of the four affects: (1) happiness: birthday party, winning a television contest; (2) sadness: a lost dog, social rejection; (3) fear: child lost, frightening dog; (4) anger: the toy snatcher, false accusation. Accompanying each slide sequence was a short narration, matched for number of words over all affects, describing the events reflected in the slides. The narrations were so constructed that the use of specific or general affective labels was completely avoided. The following narration, accompanying the male, sadness slide sequence, typifies the construction of the series.

Slide I: Here is a boy and his dog. This boy goes everywhere with his dog, but sometimes the dog tries to run away.
Slide II: Here the dog is running away.
Slide III: This time the boy cannot find him, and he may be gone and lost forever.

Before administering the slide sequences, children are informed that they are going to observe pictures and hear stories about children their own age. Immediately following each sequence, the child is simply asked to state how he or she felt. The specific instructions used were “How do you feel?” and “Tell me how you feel.” Each child’s direct verbal report was recorded verbatim and constituted the primary index of empathy.

If a measure of social comprehension is desired, the child can be asked “How does the child on the screen feel?” In our early studies, this question either was asked after the empathy procedure was completed or was asked of a separate group of children. In later studies, various strategies in regard to the assessment of social comprehension was followed.
In order to heighten the impact of the affective content, the two sequences depicting a particular affective situation were always presented consecutively. To reduce the residual carry-over from one affect to another, a brief sorting task was given between each of the three changes in affective categories.

B. EFFECTS OF SIMILARITY ON EMPATHY

1. The first study (N. Feshbach & Roe, 1968) was addressed to the stimulus conditions that might influence empathic behavior. A major hypothesis guiding the study was the expectation that similarity between the sex of the stimulus child and the sex of the observing child would facilitate empathic behavior. Evidence from Stotland and Dunn’s (1963) research with adults suggested the significance of similarity as a facilitator of empathic behavior. The basis of similarity in Stotland’s study was competence in a skill, and one would expect that similarity on a fundamental dimension such as sex would be no less significant. Studies of related processes, such as modeling (Kagan, Pearson, & Welch, 1966) and projection (Feshbach & Feshbach, 1963), provide further evidence for the relevance of the similarity variable. Similarity on one dimension of personal characteristics should enhance generalization of other attitudes and behavior, including emotional experiences, from the stimulus person to the perceiver. From a theoretical standpoint, imitation or identification is closely linked to the process of role-taking and factors, such as similarity which facilitate identification, should also facilitate empathy. In addition to similarity effects, sex differences in empathic behaviors were also investigated.

The subjects were 46 first grade children (23 boys and 23 girls). The children came from middle-class backgrounds, were above average in intelligence (mean IQ of 121), and ranged in age from 74 to 91 months. Each child was seen individually by a female experimenter who repeated the experimental instructions while the child was seated in front of a table on which was placed a Hughes videographic projector. The series of slide sequences, paired with narrative material, was projected onto the screen. The male or female stimulus series was randomly assigned to subjects of both sexes. The variation of sex of the stimulus figure and the sex of the subject resulted in four experimental groups: Boys Observing Boy Stimuli (BB), Boys Observing Girl Stimuli (BG), Girls Observing Boy Stimuli (GB), and Girls Observing Girl Stimuli (GG). Order of presentation of the four types of affect was controlled by initially determining the 24 permutations of the four affective categories and randomly assigning each permutation to one boy and to one girl. The tasks interspersed between each affective sequence pair entailed such activities as putting jacks into various color categories and assembling jacks into piles of two, three, and four clusters according to directions. Approximately 2 minutes were spent on each interpolated task, while the time devoted to the administration of an affective category (consisting
of two slide sequences) was of similar duration. In addition, for 27 of the subjects, the sequences were presented again with instructions to indicate the feelings of the central child in each slide-story sequence. The specific question used was "How does this child feel?" The responses to this question were used as a check on the children's comprehension of the affective situation and also on the presence of the appropriate labels in their verbal repertoire.

In order for empathy to be scored, the feeling reflected in the response had to be a specific match with the affective situation observed. Thus, in response to the anger sequences, replies such as "not so good" to the question "How do you feel?" were not scored, while "I feel mad" constituted an empathy response. The subjects received a score of one for each specific match; and, since there were two sequences for each affect, the empathy score for a specific affect could range from zero to two while the total empathy score, over four affects, could range from zero to eight. A similar scoring procedure was applied to the responses of those 27 subjects who were readministered the story-slide sequences and who were asked to report the feelings of the central figure in the situations. These latter scores constituted the social comprehension index.

Because the range of verbal responses to each affective situation was quite limited, it was relatively simple to establish scoring procedures that could be uniformly applied by different raters. The two authors independently rated the protocols for ten of the children and obtained at least 96% agreement for each of the scoring procedures for the empathy and social comprehension indexes. Any discrepancy between the two raters in scoring a response was considered a disagreement. The reliability index, consisted of the number of agreements divided by the total number of responses scored. Separate reliability estimates were also determined for each of the four affective categories, and a similar high degree of consistency was obtained for each of the individual affects.

The mean empathy scores for boys and girls in response to male and female stimuli are presented separately by affect in Table 1. Inspection of Table 1, in which the data are based on the more specific scoring system, reflects the predicted interaction between the sex of the subject and sex of the stimulus for each affect except fear. With that one exception, the empathy scores of boys observing boys (BB) are greater than those of boys observing girls (BG); empathy scores of girls observing girls (GG) are greater than the scores of girls observing boys (GB). In the case of fear, both boys and girls report experiencing more anxiety when observing girls in a fearful situation. Because the range of scores within any affect category is restricted from zero to two, the assumptions permitting an analysis of variance of these distributions cannot be properly met.

Several alternative procedures for demonstrating the interaction between sex of the subject and sex of the stimulus were utilized. For each affect, the BB and GG groups were combined and compared with the combined BG and GB groups, permitting a contrast of the effects of similarity and dissimilarity between the
subject and the stimulus. The differences between the similarity and dissimilarity groupings were evaluated by means of a nonparametric procedure, the Mann Whitney U test (two-tailed), and, as Table I indicates, the differences are significant at the .05 level for happiness, the .10 level for sadness, and the .01 level for anger.

In order to permit an overall comparison of the empathic behavior of the two sexes, a total empathic score, based on the sum of empathic responses to all of the affective situations, was determined for each child. The means of these total empathy scores are presented in Table II. Since the range of scores is from zero to eight, it was possible to use an analysis of variance. A marked interaction effect, significant at the .01 level, was obtained between sex of the stimulus and sex of the subject. The t-tests used to evaluate cell differences indicated that, while the effect was most striking for the girls (GG vs. GB: \( p < .01 \)), it also held for the boys (BB vs. BG: \( p < .05 \)). Of interest, too, is the finding that the mean empathic score for girls observing girls is significantly greater (\( p < .05 \)) than the corresponding score for boys observing boys.

In order to permit a comparison of empathy responses to the four affective situations, the responses to the four sequences depicting a particular affect were combined. The mean empathy score for each affect is presented in Table III. A highly significant main effect \( F(3,180) = 84.5, p < .005 \), for the affect variable was obtained, and the differences among the four affects were tested by the Neuman Keuls procedure (Winer, 1962). This analysis shows that the mean empathy score for happiness is significantly greater than that for sadness, which, in turn, is significantly greater than that for aggression. The difference between aggression and fear is not significant.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Happiness</th>
<th>Sadness</th>
<th>Anger</th>
<th>Fear</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>B 1.92</td>
<td>B 1.58</td>
<td>B 0.92</td>
<td>B 0.17</td>
</tr>
<tr>
<td></td>
<td>(N=12)</td>
<td>(N=11)</td>
<td>(N=12)</td>
<td>(N=12)</td>
</tr>
<tr>
<td>G</td>
<td>G 1.64</td>
<td>G 1.36</td>
<td>G 1.08</td>
<td>G 0.27</td>
</tr>
<tr>
<td></td>
<td>(N=11)</td>
<td>(N=11)</td>
<td>(N=11)</td>
<td>(N=11)</td>
</tr>
<tr>
<td>BB + GG</td>
<td>BB + GG vs.</td>
<td>BB + GG vs.</td>
<td>BB + GG vs.</td>
<td>BB + GG vs.</td>
</tr>
<tr>
<td>BG + GB</td>
<td>p &lt; .05</td>
<td>BG + GB</td>
<td>p &lt; .10</td>
<td>BG + GB</td>
</tr>
</tbody>
</table>

*From N. Feshbach & Roe (1968)

*Mean empathy scores, based on specific matching of affect, as a function of sex of stimulus, sex of subject, and type of affect.
TABLE II
EMPATHY IN 6- AND 7-YEAR-OLDS**

<table>
<thead>
<tr>
<th>Stimulus</th>
<th>Boy</th>
<th>Girl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boy</td>
<td>4.58</td>
<td>3.64</td>
</tr>
<tr>
<td></td>
<td>((N=12))</td>
<td>((N=11))</td>
</tr>
<tr>
<td>Girl</td>
<td>3.45</td>
<td>5.50</td>
</tr>
<tr>
<td></td>
<td>((N=11))</td>
<td>((N=12))</td>
</tr>
</tbody>
</table>

*From N. Feshbach & Roe (1968).
**Means of total empathy scores based on specific matching of affect.

In Table IV the data bearing on social comprehension is presented, that is, the judgments made by the 27 subjects who when readministered the slide sequences, were asked to state how the stimulus person felt. The responses of the boys appear quite similar to those of the girls except in the case of fear, where their judgments tend to be more accurate. Moreover, all subjects accurately labeled the happiness and sadness stimuli; anger was properly labeled in about half the judgments and fear in about 20% of the judgments. When a broader scoring procedure is followed in which a precise verbal description is not required, 100% accuracy is obtained for all of the judgments (social comprehension).

These results indicate that the empathy measure is distinct from the social comprehension measure and that the variations in empathy cannot be accounted

TABLE III
EMPATHY IN 6- AND 7-YEAR-OLDS**

<table>
<thead>
<tr>
<th>Affect</th>
<th>Mean*</th>
<th>Anger</th>
<th>Sadness</th>
<th>Happiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear</td>
<td>0.83</td>
<td>0.36</td>
<td>2.28**</td>
<td>2.63**</td>
</tr>
<tr>
<td>Anger</td>
<td>1.19</td>
<td>—</td>
<td>1.10**</td>
<td>2.27**</td>
</tr>
<tr>
<td>Sadness</td>
<td>3.11</td>
<td>—</td>
<td>—</td>
<td>0.84**</td>
</tr>
<tr>
<td>Happiness</td>
<td>3.46</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Critical values</td>
<td>.54</td>
<td>61</td>
<td>.65</td>
<td></td>
</tr>
</tbody>
</table>

*From N. Feshbach & Roe (1968).
**Variations in empathy responses based on specific matching of affect, as a function of type of affect.
*Cell entries are differences among the means of the various affects. These differences must be greater than the critical values in order to be significant at the .01 level.
**Indicates significant differences at \(p < .01\).
for solely by ability to recognize the affective experiences of others. Social comprehension may be a necessary prerequisite for empathy. However, given accurate recognition of the affective state of the stimulus person, there is still considerable variation in the empathic response to that stimulus. This variability in empathy, moreover, is not random but is systematically related to the similarity between the child and the stimulus person. The interaction between sex of the subject and the sex of the stimulus is, itself, evidence that social comprehension cannot account for the empathic responses that were observed. The empathic responses of both boys and girls to the male and female sequences were significantly different although the sequences were cognitively similar, except for the difference in sex.

The major empirical finding of theoretical significance in this first study is the evidence supporting the hypothesis that similarity facilitates empathic responses. Boys were more empathic with boys than with girls; the converse was found with the girls. These results are in accord with the general theoretical importance that has been ascribed to similarity in predicting social behavior.

Of theoretical and methodological importance is the contrast between the empathy data and the findings relating to the comprehension and recognition of affective states in others. Since individuals can and do vary along many different dimensions, the problem remains of determining which dimensions of similarity are relevant to a particular behavioral domain. With regard to empathy, Stotland and Dunn’s (1963) data and the present findings respectively indicate that similarity of attitude and similarity of sex between an observer and a stimulus person enhance empathic responsiveness. In subsequent studies, other dimensions of similarity will be considered and data congruent with those initial findings will also be reviewed.
C. RELIABILITY OF THE EMPATHY MEASURE

One factor possibly influencing the pattern of findings is the reliability of the FASTE measure of empathy. The high intercorrelations obtained between different sources of the children's protocols reflect scoring reliability but not test reliability. Although the experimental findings reflect some degree of test reliability, data bearing on the reliability of the instrument are still required.

Consequently, a separate study on an additional group of middle-class children was conducted in order to determine the test-retest reliability of the Feshbach and Roe Affective Situation Test for Empathy (FASTE). The sample consisted of 20 children, 14 randomly selected from kindergarten classes and 6 from first grade. The kindergarten sample (mean age 72 months) was equally divided as to sex, while of the first graders (mean age 82 months) four of the children were boys and two were girls. All children were individually administered the FASTE under standard, same sex test conditions. The latter included a random order of the four affects separated by three interpolated tasks. One week later the children were readministered the test under the same standard conditions.

Total empathy scores were determined for each administration of the test. The Pearson correlation for the overall sample was .84 ($p < .01$). This was a rather high correlation considering the age of the sample and the use of the test-retest method as compared to item intercorrelations for estimating test reliability. Since it is possible that age differences in empathy, although nonsignificant, may have contributed to the reliability estimate, separate correlations were determined for the kindergarten and first grade subjects, the size of the latter sample being quite small. The correlations for these two groups proved to be .77 ($p < .01$) and .94 ($p < .01$), respectively. Similarly high correlations were obtained when a separate analysis was carried out by sex of the child. For the boys, the correlations between the two administrations of the FASTE was .74 ($p < .01$), while the corresponding correlation for the girls was .89. In view of these findings, it seems reasonable to conclude that the FASTE is a reliable measure, for children of this social class and age, for assessing self-reports of affective states, in response to the depiction of affective situations involving another child.

D. ADDITIONAL STUDIES OF THE EFFECTS OF SIMILARITY ON EMPATHY IN CHILDREN

Of course, the reliability of the measuring instrument does not insure the reliability of the experimental effects under investigation. However, a number of investigations attest to the importance of the similarity variable in facilitating the empathic response. Kaluk (1971) administered the FASTE to kindergarten children attending middle-class schools in Durham, North Carolina. Boys and girls (mean age: 69.8 months) responding to same sex stimuli, again displayed signifi-
cantly more empathy than boys and girls responding to opposite sex stimuli. Findings indirectly bearing on similarity effects were provided in another project carried out by Powell (1971) in which she varied the age of the narrator of the verbal descriptions accompanying the slides. In this study either an adult male or a 10-year-old male child narrated the short verbal scripts, while in the N. Feshbach and Roe (1968) study an adult female served in this role. Three groups of children, aged four, six, and ten, 30 children in all, were randomly assigned to one of the two narration conditions. Of interest is the significant narration effect for the 10-year-old group, empathic responsiveness being higher with the male child than with the male adult narrator. A developmental progression in empathy scores as a function of age was also observed, the older children obtaining significantly higher empathy scores than the younger children. Although no sex differences were found at age six or at age ten, a significant difference was obtained at age four: girls being more empathic than boys.

Of particular relevance to the question of similarity influences on empathy is a doctoral dissertation carried out with girls, which focused on racial similarity and differences (Klein, 1970). The effect of racial or ethnic similarity in children's empathy is of special interest in view of the possible role of empathy in mediating ethnic attitudes and relationships. In addition, the degree of perceived similarity of interests between the stimulus person and the observer was experimentally manipulated in an effort to extend the range of similarity variables and to assess possible interactive effects between the two sources of similarity.

To help insure that the themes depicted in the slide sequences were of equal familiarity and relevance to both ethnic groups, a new set of slide-story sequences were developed. Interviews were conducted with a new group of 21 first and second grade black girls and an equal number of white children. Five of the themes spontaneously mentioned by both groups corresponded with those used in the FASTE measure. Two new themes—'buying ice cream' and 'going to the beach,'—were used to depict happiness, and 'sick in bed,' was substituted for the 'lost dog' theme. Two sets of eight slide sequences were prepared, identical in content. In one set, white girls were portrayed in the stimulus sequence while in the other set the depicted children were always black. A pilot study with 15 white and black 6- and 7-year-old children reflected uniformly high comprehension.

The experimental sample consisted of 64 black and 64 white first and second grade girls, ranging in age from 74 to 95 months. The children were of at least average intelligence and were attending schools and residing in predominantly lower-middle-class neighborhoods. Half of the children from each ethnic group observed slide sequences of the same or ethnically different stimulus females. In addition, the procedures were administered by a white and a black female experimenter. The experimental manipulation of perceived similarity of attitude between the stimulus child and the observer constituted the fourth variable in the
study. Order of presentation of the affects was controlled by using the 24 permutations of the four affective conditions and randomly assigning permutations to white and black subjects. As with the FASTE measure, the two sequences depicting a particular affect were administered sequentially and two brief tasks were interspersed between the presentation of different affects.

The manipulation of perceived similarity was accomplished by asking the children a series of questions concerning interests and attitudes, prior to viewing the slide sequences, e.g., “What’s your favorite game?” “What’s your favorite animal?” After completion of the interview, the slide sequences were then presented. When the first slide of each of the eight sequences appeared on the screen, the perceived similarity was introduced. The subjects in the similarity condition were told that the girl in the slide shared with the child subject some attribute, e.g., ... Her favorite drink is Kool-Aid too, just like you. You girls are alike on other things too. You two girls are very much the same.” The verbal accompaniment and the slides of the particular affective sequence then ensued. The procedure for the control or noninduced similarity condition was the same except for the omission of the comments intended to induce similarity.

The measure of empathy, the child’s self-report, was identical to that used in the N. Feshbach and Roe (1968) study. Scoring reliability was again quite high, when two independent raters scored 32 randomly selected protocols, 95% agreement was obtained.

The principal findings bearing on the effects of ethnic similarity are presented in Table V. The interaction is in the predicted direction $F(1,112) = 3.34, p < .10$, black subjects responding with greater empathy to affective situations portraying blacks as compared to those portraying white children, while white

<table>
<thead>
<tr>
<th>Subject</th>
<th>Stimulus</th>
<th>Row—means</th>
<th>Similarity and dissimilarity means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>3.97</td>
<td>3.53</td>
<td>M=3.75</td>
</tr>
<tr>
<td>White</td>
<td>3.34</td>
<td>4.34</td>
<td>M=3.84</td>
</tr>
<tr>
<td></td>
<td>1.93</td>
<td>2.24</td>
<td>BB+WW</td>
</tr>
<tr>
<td>Column means</td>
<td>3.66</td>
<td>3.94</td>
<td>BW+WB</td>
</tr>
</tbody>
</table>


Mean total empathy scores as a function of ethnicity and stimulus; $N=32$. 
subjects displayed the opposite trend. The difference in empathic responsiveness to same versus different ethnic stimuli is especially marked for the white girls ($p < .03$), being twice as large as that manifested by the black children. While one cannot conclude from these data that similarity in ethnicity is a more significant factor in the empathic behavior of white children than black children of this age group, the results are suggestive of this and warrant further study. Overall the data do indicate that ethnic similarity between the observer and observed, as is the case for similarity of sex, facilitates empathy.

In contrast, the analysis of induced similarity effects yielded small and insignificant differences for the overall comparisons across all four affects. A significant difference ($p < .05$) in the predicted direction was found for the fear affect. It is not clear whether this modest outcome is due to the mildness of the similarity induction procedure or whether similarity of ethnicity is a more potent factor than similarity of interests and attitudes for this age group.

E. Methodological and Conceptual Issues

The experimental studies that have been presented, while free of some of the empirical problems that historically have beset the investigation of predictive empathy, are also subject to methodological complexities that warrant further analysis and elaboration. There are two important issues that have been raised in regard to the significance and interpretation of the empathic response: the issue of social comprehension or social perception as distinguished from empathy contingent upon social cognition but including an affective component; the process of empathy as distinguished from the process of projection and the related issue of the effect of contextual or background cues versus person cues in eliciting the empathic response.

1. Social Cognition versus Cognitive/Affective Empathy

Several investigators in the area of cognitive empathy have challenged the theoretical utility and methodological distinctiveness of including an affective component in the measurement of empathy (Chandler, 1974). It has already been noted that under conditions of equal comprehension, there are marked variations in empathy. The findings for similarity of sex and ethnicity underscore this point. Also, while in these same studies, uniformly high comprehension was manifested by the children, the range for empathy was quite broad. Analogous findings have been obtained with 3- to 5-year-olds by Mood et al. (1974) using a simplified procedure developed by Borke (1971).

In the Mood et al. (1974) study, 23 separate story sentences describing an event that had occurred to a child of the same sex were auditorily presented. The children were asked both how the story-child felt and how they themselves felt. Fifty-seven percent of the total responses were correct identifications of the
story-child's feelings, but only 30% of these corresponded to the feelings ascribed to the story-child. The authors conclude that their "data appear to be consistent with N. Feshbach's view (1973b) that empathy presupposes social understanding but not the converse" (p. 13). They also point out that the low proportion of empathy responses may be attributable, in part, to the briefer and less involving stories which they employed.

A study focusing on the stimulus components of the story sequences differentially implicated in social understanding and in empathy is directly germane to this issue (Kuckenbecker, Feshbach, & Fletcher, 1974). This investigation will be presented in some detail, after the other methodological issues are reviewed.

2. Empathy, Projection, Contextual Cues

It has been suggested that the findings obtained by procedures such as the FASTE are largely a reflection of a child's egocentricity and projection of affect rather than a vicarious sharing of affect (Shantz, 1974). The egocentric or projection hypothesis has been offered primarily to account for the child observer's accurate identification of the affect manifested by the observed or stimulus child. It is suggested that the child observer is making the simple attribution of affect on the basis of the familiarity of the situation and from his own experience. The child is presumed to judge egocentrically how he or she would feel in a similar situation and then attribute this feeling to the stimulus. This explanation has been overextended in an effort to account for the affective matching between observer and observed (Chandler, 1974). The assumption underlying the projective hypothesis is that the direction of the process mediating the matching is from observer to observed rather than from stimulus person to observer. The problem with this interpretation is that it does not explain the discrepancy between the social comprehension measures and the empathic responses, especially the consistently lower scores for empathy.

Nevertheless, the suggestion that the familiar contextual cues in the situation, other than the affective expression of the stimulus person, are responsible for the observer's self-report, does raise an important issue in regard to the meaning of the empathy response. Thus, if a subject responds to the "lost child" sequence with a self-report of being afraid, is this subject afraid because of an empathic sharing with the stimulus child or is the subject's fear reaction independent of the stimulus child and merely contingent upon the contextual cues?

To ensure that the observer's response is elicited by the stimulus child rather than the stimulus situation, a procedural strategy is advocated which pits situation against person (Chandler, 1974). Thus, stimuli have been employed in which the affects suggested by the situational cues are incompatible with the affect portrayed by the stimulus child, e.g., a happy child at the doctor's office receiving an inoculation (Burns & Cavy, 1957; Iannotti, 1975). It would ap-
pear, however, that this procedure for studying empathy is more appropriate for investigating the resolution of incongruent stimuli and other cognitive dilemmas than it is for establishing the mechanisms for mediating empathic behavior.

Of equal importance, the incongruous situation is an artificial one, rarely occurring in the life history of the child (or for that matter, of any adult) and would appear to be more cognitively disruptive than empathy evoking. At a more basic level, there is a strong theoretical and empirical thrust in the broader study of emotions, (Mandler, 1962; Schachter & Singer, 1962) which places major emphasis upon the role of situational cues as a critical determinant of emotional experience and behavior.

Other procedures must be sought in dealing with this unresolved issue regarding the role of situational determinants of the empathic response. For example, a new set of experimental stimuli varying situation and child expression, such that a number of different affects are appropriate to a particular situation, would be a feasible and a conceptually more appropriate procedure. In addition, investigations of the antecedents and properties of the empathy response will also help clarify this issue. Thus, the finding that similarity between observer and observed facilitates empathy strongly indicates that the child subject is responding to dimensions of the stimulus child as well as to possible features of the situation. An analysis of the specific stimulus properties of the components of the affective situation, as carried out in the Kuchenbecker et al. (1974) study, bears upon this question as well as upon the functional differences of social comprehension and empathic behavior.

3. The Effects of Modality upon Social Comprehension and Empathy

In this study (Kuchenbecker et al., 1974), a more detailed approach to the appraisal of the child’s social comprehension was undertaken. In addition, the auditory and visual components of the FASTE stimuli were experimentally varied to investigate the possible differential effects of modality of presentation.

The study involved 144 middle-class white boys and girls from kindergarten, first, and second grades who were randomly assigned to a male or female E administering like sex stimuli under one of the following three experimental presentations: the Auditory-Visual (AV), or standard procedure, which included the slides and accompanying narration, a Visual (V) condition in which the narration was omitted, and an Auditory (A) condition in which the slides were omitted. For the auditory condition, the original narrations were slightly modified so as to equate the different affective sequences for language structure and number of auditory information items.

After each sequence, four standardized open-ended questions were posed: "(1) What’s happening here, what’s happened? (2) Anything else? (3) How do you know what happened? and (4) How does that story make you feel?" The
child's spontaneous answers to the first three questions constituted the main comprehension measures. The child was credited for presence or absence of: each of the three conceptual parts of the story; sequence of recall; mention of auditory items of information; attribution of affect, postural and facial features of the stimulus as well as judgmental, elaborative, or misinformed responses. The response to the fourth question, "How does the story make you feel?", which differed slightly from previous studies in which the child was simply asked how she or he felt, provided the basis for the empathy measure. As in previous studies, in order for empathy to be scored, the affect reflected in the child's self-report had to match specifically the affect observed in the situation. The total number of specific matches across the eight stories constituted the empathy score.

A comparison of the results obtained on the principal measures of comprehension and empathy reflect significant but contrasting findings. As one might anticipate, there is a marked and significant grade effect, indicated in Table VI, in the number of correctly identified conceptual parts, ranging from a mean of 13.1 for kindergarten children to a mean of 18.9 for second graders $F(2,108) = 17.77, p < .01$. Significant developmental increments were also obtained on the other comprehension measures which included the number of stories sequentially recalled and the number of recalled auditory items. An inspection of the comprehension scores also reflects the marked influence of the modality variable.

More conceptual story parts are identified under the visual condition than under any other modality, the respective means being 18.3 for the visual modality, 16.3 for the auditory-visual modality, and 14.2 for the auditory modality $F(2,108) = 9.15, p < .01$. The same ordering of modality is obtained for sequential recall of stories, with visual modality being superior to the auditory-visual mode of presentation and subjects under the auditory condition again manifesting the lowest comprehension scores $F(2,108) = 10.41, p < .01$. Although the overall interaction between grade and modality fell short of statistical significance, it appears that the superiority of the visual modality is strongest

<table>
<thead>
<tr>
<th>Table VI</th>
<th>The Effects of Age, Sex, and Modality upon Social Comprehension and Empathy</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Auditory</td>
<td>Visual</td>
</tr>
<tr>
<td>Kindergarten</td>
<td>8.7</td>
<td>16.4</td>
</tr>
<tr>
<td>First grade</td>
<td>18.0</td>
<td>17.5</td>
</tr>
<tr>
<td>Second grade</td>
<td>17.0</td>
<td>21.6</td>
</tr>
</tbody>
</table>

From Kuchenbecker, Feshbach, & Pletcher (1974).

Mean comprehension scores as assessed by number of conceptual parts identified for grade level and modality; $N = 144$. 


at the kindergarten level. The kindergarteners obtained particularly low comprehension scores under the auditory modality condition, a finding consistent with other evidence indicating that children at this age level prefer visual to verbal outputs (Calfee, Chapman, & Venezky, 1969). By first grade, there is a striking improvement in the comprehension scores under the auditory modality. Of special note are the consistently lower comprehension scores obtained under the auditory-visual as compared to the visual condition, despite the ostensibly greater information provided by the auditory-visual condition. This finding is reminiscent of information overload effects which have been reported by other investigators (Maccoby & Hagen, 1965).

In addition to the analyses of the major dependent social comprehension variables, a number of secondary comparisons were made. Strong modality effects are again obtained on these secondary variables and are consistent with the findings on the primary dependent variables. In the visual condition alone, the child is more likely to make spontaneous affect attributions $F(2,108) = 16.16, p < .01$, ($\bar{X} = 2.1$ visual; $\bar{X} = 1.3$ auditory-visual; and $\bar{X} = 0.4$ in the auditory). Elaborations of the stimuli are also more common in the visual condition and least common in the auditory conditions. The mention of postural and facial features follow the same ordering of modality preferences as is observed on the other comprehension variables, with an overall lower frequency.

It is clear that there are important developmental changes and modality influences in children's comprehension of these affective, interpersonal situations. A central question is whether similar variations are found for the empathy dimension. The mean empathy scores, based on the match between the child's self-report of his or her own affect and that depicted in the story sequences, are presented by grade, modality, sex of child, and sex of experimenter in Table VII.

An analysis of variance of the empathy scores yields a highly significant main effect for grade level $F(2,108) = 8.66, p < .01$, with the kindergarten group obtaining a mean score of 2.00, the first graders a mean of 3.40, and the second graders a mean of 4.29. The developmental progression in empathy scores corresponds to the developmental changes observed on the comprehension measures. However, when we examine the influence of modality on empathy, a very different pattern emerges. Whereas the social comprehension scores are maximal under the visual modality, it is the auditory-visual mode of presentation that elicits the highest empathy scores $F(2,108) = 4.89, p < .01$. Under the auditory-visual condition the mean empathy score is 4.2 in comparison to the mean of 2.8 under the auditory mode and 2.7 under the visual mode. This greater empathic responsiveness under the auditory-visual mode is primarily characteristic of the kindergarten and first grade children.

As is seen in the social comprehension analysis, sex of the child is not significantly related to empathic responsiveness. Unlike the social comprehension results, however, there is a significant effect upon empathy due to variation in sex
EMPATHIC BEHAVIOR IN CHILDREN

TABLE VII

<table>
<thead>
<tr>
<th>Grade</th>
<th>Auditory Experimenter</th>
<th>Visual Experimenter</th>
<th>Auditory-visual Experimenter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>K</td>
<td>Male</td>
<td>3.50</td>
<td>0.50</td>
</tr>
<tr>
<td>Female</td>
<td>0.50</td>
<td>1.00</td>
<td>0.50</td>
</tr>
<tr>
<td>1</td>
<td>Male</td>
<td>0.00</td>
<td>4.50</td>
</tr>
<tr>
<td>Female</td>
<td>2.25</td>
<td>2.50</td>
<td>2.25</td>
</tr>
<tr>
<td>2</td>
<td>Male</td>
<td>5.25</td>
<td>5.00</td>
</tr>
<tr>
<td>Female</td>
<td>4.75</td>
<td>3.75</td>
<td>3.00</td>
</tr>
</tbody>
</table>

*From Kuchenbecker, Feshbach, & Fletcher (1974).

^Mean empathy match scores for each grade, modality, and sex of child and experimenter; N = 144.

of the experimenter. The female experimenter elicits a mean of 3.72 empathy responses while the male experimenter elicits only 2.73. This difference is significant at p < .05 (F (1,108) = 4.73).

The overall experimental findings presented here reflect both the close interrelation between the dimensions of social comprehension and empathy and also their independence. As the child grows older, the ability to comprehend social situations increases, as does the tendency to share the affective state of individuals in these social situations. The developmental progression for comprehension and empathy appears to correspond to the development of cognitive abilities that has been noted for this time period (Leifer, 1971). The similarity in the developmental patterns outlined for social comprehension and empathy is consistent with the proposition that social comprehension is a prerequisite for the empathy response. At the same time, the differential effects of the modality variation on empathy as compared to social comprehension indicate that these two categories of response are not merely different aspects of the same cognitive process, but are functionally distinct, albeit related, variables.

The significant enhancement of empathic responsiveness which occurred when auditory and visual cues were simultaneously presented was particularly evident for the kindergartners and first graders. Empathy, involving an important affective component, seems to be enhanced by the abundance of cues in the bimodal condition. The second graders, however, exhibited a similar facility for empathic responsiveness across modalities.
There are a number of possible explanations for this pattern of findings. The enhanced sensory exposure under the bimodal condition may facilitate, in the younger children, a stronger affective response because of greater physiological arousal resulting from this exposure. However, more cognitive mediators may also be involved. Thus, at the younger age levels when role-taking skills are relatively unstable, additional cues provided by two sensory modes may be required for the child to assume another person's perspective. In either case, the dependence of the empathy response on both visual and auditory cues strongly suggests that the cues of the stimulus person, as highlighted in the visual condition, as well as the story cues, predominant in the auditory condition, are essential to the evocation of empathy.

III. Correlates of Empathy

A. Empathy, Social Comprehension, and Reading Skills

The studies that have been considered thus far have been addressed to the situational determinants of empathy and simultaneously bear upon the properties of the construct and of the assessment procedure. The data yielded in these experiments are consistent with the conception of empathy as a product of both cognitive and affective factors. These data indicate that empathy, as measured by the FASTE, is not merely a mirror of the child's ability to identify and understand the feelings of another person, although it is dependent upon that ability. Nor is it merely an egocentric reaction to an affect arousing situation. However, additional and different kinds of information are required to extend the utility of the construct and to test its conceptualization.

Particularly important are studies linking empathy to other theoretically relevant behaviors. The three components of the proposed model of empathy, singly and in combination, suggest a number of such behaviors. The first of these studies of the correlates of empathy is addressed to a cognitive competency, namely, reading. Since empathy is assumed to entail role-taking skills, children who are high in empathy should also be skilled in interpersonal communication, in the understanding of social events, in the comprehension of stories, and in related cognitive tasks.

Educators, with increasing frequency, are placing reading and other language skills in the broader context of children's communication patterns and systems. Reading entails the ability to comprehend the sequence and implications of events and experiences that are communicated by linguistic symbols as well as the ability to discriminate and label these symbols. These competencies might be termed, from a loosely defined Piagetian framework, as referential communication and role-taking skills; that is, these same skills, which are assumed to be a
major component of empathy, are probably also implicated in the reading process. Thus, one might expect that with linguistic, intellective factors held constant, children who are high in empathy should be more successful in reading than children low in empathy.

To obtain data bearing on this inference, the FASTE was administered to different samples of children, drawn from schools in middle-class areas, who had been involved in a longitudinal study concerned with the prediction of reading competencies. These samples included groups of second and third grade children selected for successful or nonsuccessful reading performance. Within each of these two performance groups there were children who, during their kindergarten year, had been categorized as high-risk and children who had been designated as controls or low-risk based upon an assessment of a diverse set of cognitive and social skills. The criterion for success in reading was performance at or above grade level on a standardized reading achievement test while nonsuccess in reading was defined by scores below grade level (S. Feshbach, Adelman, & Fuller, 1975). In selecting these samples, an effort was made to match all four subgroups on IQ, age and sex.

Children from each subgroup were randomly assigned to one of three modes of presentation of the FASTE: Auditory-Visual, Visual, and, Auditory (Feshbach, Kuchenbecker, & Feshbach, 1977). In Table VIII, the design, including the mean IQ and ages at kindergarten entry for high- and low-risk successful and nonsuccessful groups are presented. The principal findings are summarized and presented in Table IX. The mean empathy scores reflect the degree to which the child's affective self-report, following observation of each slide sequence,

<table>
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<tr>
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<tr>
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From Feshbach, Kuchenbecker, & Feshbach (1977).
Mean age and IQ at kindergarten entry for each experimental group.
TABLE IX
THE EFFECTS OF MODALITY OF STIMULUS PRESENTATION ON SOCIAL COGNITION AND EMPATHY IN PROBLEM READERS AND THEIR MATCHED CONTROLS$\textsuperscript{a,b}$

<table>
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<th>Auditory visual</th>
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<td>20.0</td>
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<tr>
<td>Auditory bits recalled</td>
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$\textsuperscript{a}$From Feshbach, Kuchenbecker, & Feshbach (1977).

$\textsuperscript{b}$Mean empathy and comprehension scores as a function of modality of stimulus presentation and reading success in high and low risk children.

corresponded with the depicted affect. The total number of conceptual parts recalled was again used as the measure of social comprehension while the auditory score, another comprehension index, was based upon the total number of auditory information items recalled by the child under the auditory and auditory-visual conditions.

Inspection of the data in Table IX indicates that the most striking differences in empathy and social comprehension are obtained in the control or low-risk group between those children who became successful readers and those children who became problem readers, the latter group constituting the false negatives. Among the control group, the successful readers have significantly higher empathy scores and auditory information scores than the nonsuccessful readers and also tend to recall more conceptual parts under the auditory-visual and visual conditions.

Of particular relevance to the experimental hypothesis is the finding of a similar pattern for the empathy response. Within the low-risk sample, successful readers display not only greater social comprehension than nonsuccessful readers, but also manifest significantly greater empathy. This similarity of pattern is a reminder of the basic interdependence of these two behavioral domains. However, as the data for the high-risk children indicate, variations in empathy are not inevitably related to variations in comprehension. Thus, although high-risk successful and problem readers manifest comparable social comprehension.
they differ significantly in empathy, successful readers displaying greater empathy than nonsuccessful readers. Again, the influence of modality is salient, the difference between these two high-risk subgroups being manifested under auditory and auditory-visual modes of presentation but disappearing under the visual only condition.

Of interest is the relative absence of differences in empathy and social comprehension between the predicted high-risk and low-risk children. Attainment of reading competence proves to be a more discriminating variable than predicted reading competence. One question raised by these data is whether the inclusion of empathy and social comprehension measures at kindergarten would have refined the prediction of reading competence, or whether developmental factors subsequent to kindergarten account for the interrelationship observed between reading competence and social comprehension and empathy.

With regard to the principal question to which this study was addressed, the importance of these data resides in the demonstration of a significant relationship between empathy, as assessed by the FASTE, and a complex cognitive skill, as manifested by reading performance.

B. EMPATHY AND AGGRESSION

The importance of both the cognitive and affective components of the empathy response becomes evident when one examines the theoretical relationship of empathy to aggressive behavior (Feshbach & Feshbach, 1972). Each component offers a distinct mechanism which leads to a prediction of a negative correlation between empathy and aggression. For example, the cognitive ability to examine a conflict situation from the perspective of another person should result in greater understanding, accompanied by a lessening of conflict and aggression. The assumption of a process of this kind underlies the rationale for the many types of therapy, "dialogue," and comparable interpersonal communication procedures applied to conflict situations. Although in this context the affective aspect of empathy is secondary, it may still play a role in enhancing understanding, inasmuch as the empathic response may be an important cue to the emotional state of the other person.

However, the affective component of empathy, has a special relationship to the regulation of aggression. Aggressive behavior is a social response which has the defining characteristic of inflicting injury upon persons or objects, causing pain and distress. The observation of these noxious consequences should elicit distress responses in an empathic observer even if the observer is the instigator of the aggressive act. The painful consequences of an aggressive act, through the vicarious affective response of empathy, should function as inhibitors of the instigator's own aggressive tendencies. An important property of empathic inhi-
bition is that it applies to instrumentally as well as anger mediated aggressive behavior. Thus, one would predict that children high in empathy should manifest less aggression than those low in empathy.

Evidence consistent with this proposition has been reported in a number of studies (Feshbach & Feshbach, 1969; Huckabay, 1971; Mehrabian & Epstein, 1972). In the first of these studies (Feshbach & Feshbach, 1969), 4- to 5-year-old and 6- to 7-year-old boys and girls were administered the FASTE. In addition, teacher’s ratings of aggressive behavior were secured. No significant relationships between empathy and aggression were obtained for younger or older girls, possibly because of the limited range of the girl’s aggression. For the boys, the relationship between empathy and aggression depended on the age level. For the preschool age group, empathy and teacher ratings of aggression were positively associated, while for the 6- and 7-year-old boys, these two variables were inversely related. An inspection of Table X indicates that for the older age group, seven of the eight high-empathy boys versus three of the 12 low-empathy boys have aggression scores below the median (p < .01). For the younger boys, two of the eight high-empathy boys have scores below the median, in comparison to ten of the 16 low-empathy children.

The finding for the younger boys is consistent with the results of Lois Murphy’s (1937) pioneering study of social behavior and child personality in which she investigated the manifestations and correlates of sympathy in preschool children. Although Murphy’s criteria for sympathy focused primarily on helping behaviors

<table>
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<td>6- and 7-year-olds&lt;sup&gt;a&lt;/sup&gt;</td>
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<tr>
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<td>Low empathy</td>
<td>3</td>
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<tr>
<td>&lt;24</td>
<td></td>
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<tr>
<td>4- and 5-year-olds&lt;sup&gt;b&lt;/sup&gt;</td>
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<tr>
<td>High empathy</td>
<td>2</td>
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<tr>
<td>Low empathy</td>
<td>10</td>
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</tbody>
</table>

<sup>a</sup>From Feshbach & Feshbach (1969).
<sup>b</sup>Distribution of aggression scores above and below median in high and low empathy boys.
<sup>c</sup>For the 6- and 7-year-old group. Fisher’s exact test p < .01; for 4- and 5-year-old group. Fisher’s exact test p < .09.
in response to another child's distress, empathic reactions such as crying and expressions of distress were also included as indices of sympathy. In this study she found that children who were more sympathetic were more aggressive than children who were less sympathetic. However, Murphy notes, "Substantial correlations with 'expressiveness' and 'initiations' add to the picture and reinforce the impression that the tendency toward general active response is of tremendous importance, and that children who are active in a situation calling for aggressive response are apt to be active in a situation calling for a sympathetic response" (p. 170). Thus, the relationship between aggression and empathy obtained for the younger age boys in the Feshbach and Feshbach (1969) study may be a reflection of the child's social interest and maturity level than of hostility.

The significant inverse relationship found between empathy and aggression for the older boys is consistent with theoretical expectation and reflects the changing meaning of children's aggression with age (Feshbach & Feshbach, 1971). This inverse relationship between empathy and aggression has been subsequently confirmed in a doctoral dissertation in which the same measures of aggression and empathy were employed (Huckabay, 1971). Further, Mehrabian and Epstein (1972), using a questionnaire measure of empathy with male college students, found that high-empathy students administered significantly less shock than low-empathy students. The consistency of these findings increases one's confidence in the proposition that empathy may function as a control of aggressive behavior. In considering the relationship between empathy and aggression, a distinction should be made between aggression directed toward animate versus inanimate objects. The popping of balloons, the punching of a Bobo doll, or the destruction of a toy does not produce distress cues with which a child can empathize. Consequently, empathy should be less relevant to the inhibition of this form of aggression. Similarly, empathic children should experience more inhibition in aggression against peers who show marked distress reactions than peers who appear to be unaffected by the aggressor's behavior. Aronfreed and Paskal (Aronfreed, 1968) have reported data indicating that the evocation of distress responses in the stimulus object is an essential component of the conditioning of empathy.

The distress response of a child who is the object of an aggressive act may serve several adaptive functions. It 'tells' the aggressor that the attack has been effective as well as producing distress responses through empathy in the aggressor. Empathy, then, is a mechanism which may help terminate aggressive behavior before the object of aggression suffers serious injury. An analogy can be made between the function of empathy in humans and that of the variety of behavioral displays in many animal species which serve to inhibit intraspecies fighting (Lorenz, 1966). As Lorenz has noted, specific mechanisms for inhibiting aggression are much more highly developed in animals than in humans. An analysis of the development of empathy and the conditions which maximize its
potential inhibitory effects may help foster socialization practices that, in humans, facilitate the aggressive regulating behaviors which appear to develop so naturally in animals.

C. EMPATHY AND OTHER SOCIAL BEHAVIORS

A principal mechanism that has been frequently postulated to account for the acquisition or manifestation of positive social behaviors, including generosity (Bryan, 1972), altruism (Bryan & London, 1970; Hoffman, 1975), helping others in distress (Staub, 1970, 1971, 1974), cooperation (Kohlberg, 1969), and other dimensions of moral thought (Piaget, 1932), is the empathic process, albeit variably defined. The theoretical saliency ascribed to empathy as a mediator of prosocial behaviors ranges in importance. For some theorists empathy is offered as one of a number of possible antecedents of altruistic and related helping behaviors (Adelman & Berkowitz, 1970; Berkowitz, 1970) while in other accounts empathy has been afforded a central role (Aronfreed, 1970; Hoffman, 1975). For the theories in which empathy is central for the development of altruistic behavior, the analysis of empathy has centered on the sharing of distress feelings and the alleviation of vicarious distress through an altruistic response. In the social learning paradigm in which empathy is one factor in the development of prosocial responses, the vicarious sharing of the recipient’s positive feelings is interpreted as a reinforcer of the donor’s helping, sharing or other altruistic behavior (Bryan, 1972; Moore, Underwood, & Rosenhan, 1973). Also, as was pointed out in Section 1, C, cognitive theorists have ascribed particular importance to the cognitive role-taking component of empathy in the emergence of higher stages of moral development.

In an effort to assess the relationship of empathy to pertinent social behaviors, two dissertations were carried out in which responses to the FASTE were correlated with experimental measures of positive and negative social behaviors (Fay, 1970; Huckabay, 1971). A middle-class sample of 60 white, 6- and 8-year-olds, above average in intelligence, equally divided as to sex and age were administered the FASTE, and standard measures of children’s cognitive moral judgment, generosity, cheating, and resistance to temptation, during four experimental sessions.

The procedure used for measuring maturity of moral judgment was similar to that initially introduced by Piaget (1932) and adapted and used in a number of later studies (Bandura & McDonald, 1963; Cowan, Langer, Heavenrich, & Nathanson, 1969; Grinder, 1964). The subject is read six pairs of stories and asked to choose which child in a given pair is naughtier, and why. Each item is then separately scored for subjective or objective level of moral judgment on the basis of choice and explanation.
Generosity was assessed under two conditions: The first involved an impersonal act of generosity, the recipient being unknown and absent at the time of the generous act which consisted of donated playing time with a desired toy; the second procedure, similar to that used by Handlow and Gross (1959) and Ugurel-Semin (1952), included a peer and required the subject to share a number of candies with a partner.

The measure of cheating was similar to the Grim, White, and Kohlberg (1968) modification of one of Hartshorne and May's (1928) original improbable achievement tests and consisted of the number of correct responses to the Improbable Peeping Test. A variation of the method developed by Sears, Rau, and Alpert (1965) for appraising lack of resistance to temptation, which uses latency of time taken by a child to touch a forbidden toy, was the last measure of moral behavior obtained directly from the child. The child's aggressive tendencies were assessed by teachers' judgment based on a 9-item aggression rating scale primarily concerned with overt and physically aggressive behaviors (Feshbach & Feshbach, 1969).

The analysis of the data indicated that aggression was positively correlated with cheating and lack of resistance to temptation and inversely correlated with generosity and empathy, the latter association being the only significant one obtained for empathy. Other findings of note were the significant positive correlation between generosity and cognitive moral judgment and the significant inverse correlations between cheating and generosity and between lack of resistance to temptation and generosity.

The significant negative correlation between empathy and teacher's ratings of aggression is consistent with previous findings and with theoretical expectation. However, the absence of significant correlations between empathy and the other measures of social behavior does pose questions concerning the generality of the construct and the usefulness of the measure. In this regard, it should be pointed out that, with the exception of the generosity measure, none of the experimentally induced situational measures of positive or negative social behaviors involved an interaction with another child. In the case of the two situational tests of generosity, one involved an impersonal act while the other entailed offering candies to a "partner" who was not in the room, the latter situation evoking minimal affective consequences. Even for adults, the presence of the stimulus person exerts an important influence on the operation of empathy. Mehrabian and Epstein (1972) found that high-empathic subjects delivered less electric shock to an experimental confederate than low-empathic subjects when pain cries were highly visible than when cues were not immediate.

Still another factor in measuring the relationship between empathy and social behaviors in experimental situations, is the possibility that empathy, whether situationally induced (Berkowitz, 1970) or reflecting a dispositional tendency
(Stotland, 1969), may result in an initial avoidance of distress producing cues. This initial depression of prosocial behaviors is found to be temporary and followed by a facilitation of helpful and other Good Samaritan type behaviors. Consequently, it would appear that situational measures of prosocial behaviors included in future studies should allow for sufficient observational time for this correction factor to take place.

D. Empathy as Related to Age and Sex

1. Age Differences

Many of the studies that have been reviewed include variations in age and sex. In all of the these studies, consistent and significant age effects were found for social comprehension and empathy (N. Feshbach, 1973b). A marked increment in empathy scores between the preschool age period of 4 and 5 and the early elementary period of 6 and 7 have been found by Feshbach and Feshbach (1969), Kuchenbecker et al. (1974), and Powell (1971). This developmental increment has been observed to continue through age 8, significant differences being obtained between 6- and 8-year-olds for both boys and girls (Fay, 1970). In the one study extending the FASTE to 10-year-olds, a small and nonsignificant difference was observed (Powell, 1971). These developmental age changes in empathy probably reflect the developmental changes in cognitive skills that occur between preschool and elementary school years. They may also reflect the enriched array of emotional experiences that children accumulate with increased interpersonal exposure and interaction.

The apparent ceiling that occurs between ages 8 and 10 is probably a function of the content of the FASTE which was developed for use with children in the 4- to 8-year-old age range. Additional stimuli, manifesting characters and situations appropriate to older age samples, should be used in studying empathy in older children. Of particular interest would be the use of age appropriate stimuli, with 10- to 12-year-olds. It is during this period that significant cognitive changes in role-taking and referential communication skills are believed to be occurring for many children (Chandler & Greenspan, 1972; Feffer & Gourevitch, 1960; Flavell, 1971), and it would be most informative to determine whether corresponding changes in empathy are also taking place.

2. Sex Differences

Data relating to sex differences are somewhat less consistent than those found for age differences. However, an overall pattern is evident, reflecting greater empathic responsiveness in girls than boys. While two studies did not yield sex differences (Fay, 1970; Kuchenbecker et al., 1974), in four studies of children ranging in age from 4 to 7, girls obtained significantly higher empathy scores than did boys (Feshbach & Feshbach, 1969; N. Feshbach & Roe, 1968;
Kaluk, 1971; Powell, 1971). The fact that in most of these studies sex differences in social comprehension were minimal suggests that the sex differences in empathy cannot be fully explained by differences in language and related cognitive skills. A more likely interpretation is that girls are less inhibited in expressing feelings than boys, particularly negative feelings. For example, in the N. Feshbach and Roe (1968) study, the largest sex differences occurred in response to the stimuli depicting fear. Clearly, this is an area which requires studies focusing on the analysis of sex differences before an empirical generalization can confidently be made or an adequate interpretation offered.

IV. Antecedents of Empathy

One of the investigations carried out in conjunction with this research program examined the relationship of childrearing factors to children's empathy, aggression, and related positive and negative social behaviors (N. Feshbach, 1975b). An important clue to the understanding of the development and properties of empathy is the determination of those antecedent factors which contribute uniquely to empathy and those antecedent factors which empathy shares with other social behaviors. In terms of the model of empathy which has guided these studies, the development of empathy, especially in terms of its role-taking component, should be influenced by some of the same antecedent factors which influence the range of positive and negative social behaviors that are commonly incorporated within moral development. At the same time, in view of the distinctive affective component of empathy, one would anticipate differential socialization correlates, particularly childrearing practices that relate to emotional responsiveness.

A related purpose of the study was an interest in clarifying the basis for the inverse relationship obtained between empathy and aggression. In addition to the postulated direct inhibitory effect of empathy on aggression, empathy and aggression may be inversely related behavior traits arising out of a common experiential background. An examination of developmental antecedents of empathy and aggression should help illuminate this question.

A sample of white, middle-class parents whose 6- to 8-year-old children had participated in the Fay (1970) and Huckabay (1971) studies were the subject population for this investigation. This group included 48 pairs of mothers and fathers who each completed a Childrearing Practices Q Sort developed by Block (1969). The items in this instrument tap general attitudes and values toward children, and specific contemporaneous practices concerning the handling of such areas as aggression, independence, emotional expressiveness, discipline, and affiliation. This childrearing scale seemed particularly appropriate to relate to the range of measures including empathy, cognitive moral judgment, generos-
ity, cheating, resistance to temptation, and aggression that had been previously obtained with the children. In addition, this instrument had been previously used with a comparable sample of parents and had yielded significant relationships between parental practices and cognitive functioning in their children (N. Feshbach, 1973a).

The number of items in the Block scale was reduced by eliminating those items which elicited little or no variability in parental response. A Principal Components Factor Analysis of the remaining 36 items was then carried out, using a varimax rotation of all factors with eigenvalues of 1.0 or greater. Separate analyses of maternal and paternal Q sorts each yielded 12 factors, with a number of interesting differences and similarities in the two factorial structures. Scales for each factor were constructed by including only those items with factor loadings of at least .40 and by minimizing item overlap. Factor descriptions for the maternal and paternal data are presented in Tables XI and XII, respectively. The factor labels, while reasonably descriptive of the item content, should be interpreted with caution in view of the limited number of heterogeneity of items that define some of the factors.

The correlations of each of the maternal and paternal factors with the child's social-moral behaviors were separately determined for boys and girls, with age held constant. An inspection of Tables XI and XII reflects the differences in parental antecedents found for boys and girls. Examining first the antecedents of empathy and aggression, only one significant parental correlate of empathy is found for boys, namely, a paternal emphasis on competition is associated with low empathy in their sons. Empathy in girls, however, appears to be related to parental behaviors reflecting a positive and nonrestrictive relationship with their daughters. Thus, empathy in girls is negatively correlated with maternal conflict and rejection, with maternal punitiveness and overcontrol, and positively associated with maternal tolerance and permissiveness.

In regard to the correlates of aggression, a consistent pattern of parental antecedents is found for boys: a mother who is punitive, who is less prone to use induction and who tends to be low in nurturance, and a father who is relatively unaffectionate and controlling, who is authoritarian and rejecting and who is likely not to trust his son. The one exception to this overall pattern is the positive correlation of aggression with maternal child-centeredness, a result which can be interpreted in terms of maternal reinforcement of the child's expressiveness, including the expression of anger and other feelings.

Another seemingly inconsistent finding is the correlation of aggression in girls with maternal trust which psychologically may function in a manner similar to child-centeredness. The other correlates of aggression in girls form a coherent set of relationships, reflecting a mother who is lower in tolerance and permissiveness and a father who manifests anxiety over sexual matters and who is less likely to use induction in child training. In comparing the antecedents of aggression with
### TABLE XI
**Correlations of Maternal Child-Rearing Factors with Children’s Social-Moral Behaviors**

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$r = .50, p < .01$  

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$r = .50; p < .01$

those of empathy, it appears that there is some overlap for girls while these behaviors in boys seem to arise from very different antecedent conditions.

The relationship of the antecedents of the other positive and negative social behaviors to the antecedents found for empathy and aggression provide further evidence of their separate roots. Empathy appears on only one factor in conjunction with the other social-moral behaviors. However, for boys particularly, there was considerable overlap in parental antecedents for aggression with those obtained for cheating, lack of resistance to temptation, a less mature level of cognitive moral judgment, and low generosity. Aggression in girls is less clearly related to the parental factors that influence these other social-moral behaviors.

It is also revealing to examine the data from the perspective of those parental factors which have the strongest relationships with the children's behaviors. For the mothers, the strongest factors are child-centeredness, use of induction and positive reinforcement, and degree of conflict and child rejection. For the fathers, the single most important child rearing dimension appears to be authoritarian-restrictiveness and criticalness. Fathers who are high on this factor have daughters who are more likely to cheat and who have difficulty in resisting temptation and sons who are more likely to cheat, are more aggressive, and are less generous. Other important paternal factors, particularly for boys, are the father's affection and his fostering of the child's autonomy. The overall findings of the study, particularly those that relate to the independence of the child-rearing antecedents of aggression and empathy are consistent with the proposition that the inverse relationship between these two behaviors in children is a function of the dynamic inhibitory effect of the empathic reaction upon an aggressive act.

The data further suggest that aggression is influenced by parental socialization factors similar to those associated with social immaturity and deviancy in other areas of development. The finding that empathy was generally unrelated to the antecedents of other indices of moral development is consistent with our view that empathy, while implicated in the process of moral growth, is structurally different from other moral behaviors because of its special affective component. The data are also consistent with Hogan's (1969, 1973) work on empathy and his model of moral conduct.

A methodological point of note, which also has theoretical implications, is the different relationships of the maternal data and the paternal data with the social behaviors of the boys and girls. The attitudes and values of the fathers were especially related to social-moral development in boys while the extent, if not the content, of association with maternal socialization factors was very similar for boys and girls. These results underline the need to assess in future studies of the antecedents of empathy and related social behaviors, the childrearing attitudes of fathers as well as mothers if an adequate understanding of the development of these behaviors is to be achieved.

Other methodological considerations would suggest that to study the emergence and development of empathic behaviors requires a shift from the
laboratory context to more naturalistic environments, particularly the home. The home situation would allow for the observation of specific modes of interaction and critical incidents that are directly germane to the sharing of affective experiences between family members. These critical incidents should not only involve the dyadic interaction between mother and child but also between father and child, and sibling and child. While data collected in natural contexts are generally desired in developmental investigations, naturalistic research is particularly necessary in the study of empathy because of the often subtle and transient affective transactions that characterize family interactions. In view of the dynamic interdependence of emotional and cognitive processes involved in empathy and the changes in empathy likely to occur with the emergence of new cognitive structures (Hoffman, 1975), it is evident that these processes should be studied longitudinally in the very young through the preadolescent child in order to understand and describe developmental changes in empathy.

V. Applications of the Study of Empathy

The study of empathic behavior in other naturalistic social contexts such as peer interactions and teacher–child interactions should also have productive consequences for the understanding of empathy. Whereas in the familial situation the research questions pertain to the antecedents of empathy, it is in these other social situations that the functions of empathy and its linkages to other behaviors can be best illuminated. There is already evidence that low empathy is associated with manifestations of social behavior problems (Chandler, 1973; Chandler et al., 1974; Feshbach & Feshbach, 1969; Huckabay, 1971). Consequently, systematic efforts to train and enhance empathic behavior should have important pragmatic results for social adaptation as well as providing a rich source of insights into the functions and manifold aspects of empathy.

The course that this research program is now taking is in the direction of instituting controlled procedures for the modification and enhancement of empathy and studying its effect upon other social behaviors. This new series of studies is being carried out in conjunction with an experimental program on fantasy training (Feshbach & Feshbach, 1975). The major goal of this program is to modify aggressive behavior in impulsive, older, elementary school age, boys and girls. The thrust of the program is the regulation of aggressive behavior through enhancing the child's understanding, imagination, and empathic skills rather than by focusing on the aggressive behavior. The empirical literature suggests that training in role-playing behavior holds considerable promise for enhancing empathy related skills and reducing aggressive behaviors (Chandler, 1973; Pitkanen, 1974; Staub, 1971; Van Lieshout, Leckie, & Smits-Van Sonsbeek, 1973). The empathy training programs which we are now
in the process of implementing are designed to yield data relevant to the assumptions underlying the three component model of empathy. The research strategy entails the experimental variation of different components of empathy and the subsequent analysis of changes in mediating cognitive and affective processes as well as in overt social behaviors. Included in the mediating processes are affective discrimination and sensitivity to affective cues, communication skills, social perspective attitudes, role-taking behaviors, and emotional responsiveness. The study will offer an opportunity to determine the interrelationships among these processes and possibly afford insights into the structures underlying empathy. Further, this analysis should help illuminate the specific mechanisms by which empathy mediates the inhibition of aggression and the facilitation of prosocial behaviors.

A major feature of the experimental design is in the provision of training conditions which permit the determination of the effectiveness of an empathy training program in which affective elements are articulated and emphasized along with more cognitively defined skills. It has been the contention that the comprehension of the feelings of another person does not necessarily lead to an empathic response. To reiterate, while the cognitive dimension of empathy is important, it is the affective component that gives the empathy construct its unique property. Even the ability to take on the role of another person does not insure an empathic response; one may not be predisposed to use that ability. Moreover, assuming that one does take on the role of the other, the affective response may be blocked or poorly articulated. What is required for the empathic experience is the integration of a cognitive perspective and an emotional engagement.

VI. A Final Note on Empathy

The research and conceptual model that has been reviewed represents one approach to the study of children's empathy. It should be clear that no one approach, no single measuring instrument, no one cognitive skill is sufficient to encompass the psychological complexity of a major social behavior such as empathy. Further, the conceptual and methodological issues involved in the study of empathy cannot be resolved through polemics or arbitrary definitions. Certainly, there is a psychological phenomenon of social comprehension based upon the ability to make inferences. There is also a phenomenon of vicarious sharing of emotional experience. How are these two phenomena related? What are the conditions which elicit and maximize these respective phenomena? What are their implications and consequences for social behavior specifically, and society more broadly? These are the questions that should guide future research efforts.
The research strategy that has been adopted here has provided some insight into the situational factors which enhance empathy, into the behavioral correlates of empathy, and into some possible antecedents of empathy. The field research endeavor currently underway will provide another opportunity to evaluate the heuristic value of this approach. Perhaps more important is the potential social utility of the experimental analysis of empathy. The research which we are now embarked upon and the efforts of other investigators who are also exploring the behavioral consequences of empathy training may lead to he development of training and socializing methods, which, through the enhancement of empathy, will help foster a new and higher level of interpersonal social interaction.

Acknowledgement

The author wishes to thank Drs. Florence Brawer and Adam Fraczek for their helpful suggestions. Deep thanks are extended to Professor Seymour Feshbach for his continuous interest and frequent collaboration in my research activities on empathy. Particular appreciation is expressed for his helpful comments in reviewing this chapter.

References


Feshbach, N. D. Empathy: An interpersonal process. In W. Hartup (Chair), *Social understanding in children and adults: Perspectives on social cognition*. Symposium presented at the meeting of the American Psychological Association, Montreal, August 1973. (b)


Feshbach, N., & Feshbach, S. Children's aggression. *Young Children*, 1971, 26(6), 364-377.


Feshbach, S., & Feshbach, N. D. Effects of fantasy and empathy training on aggression. Grant proposal submitted to the National Institute of Mental Health. February 1, 1975.


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Mood, D. W., Johnson, J. E., & Shantz, C. U. Affective and cognitive components of empathy in young children. Mimeo. Department of Oncology, Wayne State University, School of Medicine, Detroit, Michigan, 1974.


