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ABSTRACT

This study examined the interactive role of empathic disposition and affective perspective-taking ability (APT) in children's machiavellianism, prosocial behavior, and motive for helping. Children demonstrating low empathy and high APT were expected to be highly machiavellian and to cite self-oriented reasons for helping more frequently than would their age-mates. Highly empathic children were predicted to be more helpful and to cite other-oriented reasons for their own helping behavior more frequently than would less empathic children. Finally, highly empathic children who demonstrated high APT were expected to be more helpful than peers when the need of the other was subtle and required inference. The 61 fourth graders and 56 fifth graders participating in the study were categorized into high and low empathy and APT groups based on their scores on the Bryant empathy scale and a modified version of APT measures developed by Rothenberg and by Silvern et al. Findings indicated that children in the low empathy/high APT group had significantly higher machiavellian scores than did children in the other empathy/APT groups. Highly empathic children were rated by their teachers as more helpful under certain circumstances; these children cited other-oriented reasons for their own helping behavior more frequently than did less empathic children. (Author/RH)

THE ROLE OF AFFECTIVE PERSPECTIVE-TAKING ABILITY AND EMPATHIC DISPOSITION IN THE CHILD'S MACHIAVELLIANISM, PROSOCIAL BEHAVIOR, AND MOTIVE FOR HELPING

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SUMMARY

One hundred and seventeen fourth- and fifth-grade children were categorized into high and low empathy and affective perspective-taking (APT) groups based upon their scores on the Bryant (7) empathy scale and a modified version of the Rothenberg (20) and Silvern et al. (22) APT measures. Children in the Lo Empathy/Hi APT group had significantly higher machiavellianism scores on Braginsky's (6) measure than did children in the other Empathy/APT groups. Highly empathic children were rated by their teachers as more helpful under certain circumstances and cited other-oriented reasons for their own helping behavior more frequently than did less empathic children.

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A. INTRODUCTION

Developmental psychologists have for many years sought to determine the factors that contribute to individual differences in the expression of prosocial and antisocial behaviors in children. Two factors that have received considerable attention recently are (a) the child's affective perspective-taking ability (i.e., the capacity to accurately identify and infer the emotional state of another individual) and (b) the child's empathic disposition (i.e., the tendency to vicariously experience the feelings of another). Although the child's cognitive awareness of and affective responsiveness to another individual are conceptually interrelated (9, 11, 12), prior correlational studies have typically used scores on an affective perspective-taking measure or an empathy measure as the sole predictor of particular interpersonal behaviors and judgments. The results of these investigations have been highly inconsistent (see reviews in 3, 13, 14, 24). The purpose of the present study was to determine whether categorizing children on the basis of their scores on both cognitive and affective measures would yield a clearer pattern of findings than that using either indicant alone.

One area in which a consideration of both the child's affective perspective-taking ability and empathic disposition may enhance predictability concerns the tendency to be manipulative,

or machiavellian, in interpersonal relations. Although numerous authors have suggested that the child's ability to take the role, or perspective, of another individual is central to the enactment of positive social behaviors (10, 19, 21), knowledge of the thoughts and feelings of a needy other is likely to be insufficient, in and of itself, to motivate a child to engage in a prosocial act. Indeed, anecdotes reported by Hoffman (11) and Staub (23) suggest that a child's knowledge of another's inner states may occasionally be utilized in a deceptive and hurtful manner. Thus, it might be expected that a child who displays a heightened awareness of the feelings of others (i.e., high affective perspective-taking ability), but also demonstrates an inability or unwillingness to share those feelings (i.e., low empathic disposition) would be especially machiavellian in his or her dealings with others.

A second focus of the present investigation was the role of affective perspective-taking ability and empathy in the child's helping of needy others. As suggested above, the availability of particular perspective-taking abilities does not ensure that a child will act in a prosocial manner when confronted with the needs and vulnerabilities of others. As Krebs and Russell (13) suggest, "The motivation intrinsic to role-taking is to obtain knowledge...to gather information... not to behave altruistically" (p. 160). In contrast, the empathically aroused individual is believed to be motivated to aid a needy other by the anticipated cessation of the mutually experienced distress and/or the anticipated vicarious pleasure

following the helpful act (1, 2, 11, 12). Thus, it might be expected that an index of the child's empathic disposition would be, in general, more clearly associated with his or her inclination to help than would a measure of the child's affective perspective-taking ability.[1] However, one important qualifier to this generalization may be the extent to which the other's need is salient. Peterson's (18) recent model suggests that children with advanced perspective-taking abilities may have an advantage over peers with poorer role-taking skills in discerning another's need for help when that need is subtle and must be inferred (rather than being obvious and salient). Therefore, in those instances in which the need of the other is subtle, children who (a) are highly empathic and (b) display a heightened capacity to understand and infer the feelings of others (i.e., high affective perspective-taking ability) might be expected to offer more comfort and assistance than highly empathic children who have relatively poor perspective-taking skills.

The final area of investigation in the present study was the child's perceived motive for helping. As suggested above, the helping behavior of the empathically aroused individual is believed to be activated by a predominately altruistic motive (see also 5). Thus, it is anticipated that a highly empathic child would perceive helping behavior, and particularly his or her own helping behavior, as being performed for other-oriented reasons more frequently than would a less empathic counterpart. In contrast, since "role-taking is an information-gathering

process that is not in itself intrinsically altruistic" (13, p. 161), the child's level of affective role-taking ability should not be clearly associated with the extent to which helping behavior is perceived as being motivated by self- or other-oriented reasons. Once again, however, a consideration of both the child's empathic disposition and affective perspective-taking ability may enhance predictability. Just as children who display a heightened awareness of, but an insensitivity to, the feelings of others are expected to be highly machiavellian in their interpersonal relations, these low empathy-high affective perspective-taking ability children may also be more likely than their peers to cite manipulative and self-serving reasons for helping other individuals.

In sum, the present study examined the interactive role of empathic disposition and affective perspective-taking ability in the child's machiavellianism, prosocial behavior, and motive for helping. Children demonstrating low empathy and high perspective-taking skills were expected to be highly machiavellian and to cite self-oriented reasons for helping more frequently than other agemates. Highly empathic children were predicted to be more helpful and to cite other-oriented reasons for their own helping behavior more frequently than less empathic children. Finally, children who are highly empathic and demonstrate high affective perspective-taking skills were expected to be more helpful than other peers when the need of the other is subtle and must be inferred.

B. METHOD

1. Subjects and Experimenters

One hundred and seventeen children, 61 fourth graders and 56 fifth graders, took part in the study. The 64 boys and 53 girls were enrolled in four public schools in a small middle-class community in northeast Kansas. There were three fourth-grade and three fifth-grade classes involved in the study and all the children had parental permission to participate. A female student in psychology conducted the group sessions and a different female student conducted the individual sessions.

2. Empathy and Affective Perspective Taking: Measures and Groups

a. Empathy. The Bryant (7) paper-and-pencil index of empathy in children and adolescents was used in this study. This scale was adapted from the Mehrabian and Epstein (15) adult empathy measure and requires respondents to indicate agreement or disagreement with each of 22 statements (e.g., "It makes me sad to see a boy (girl) who can't find anyone to play with"). The scale has demonstrated satisfactory reliability and preliminary construct validity (7).

b. Affective Perspective Taking. The affective perspective-taking measure used in the present study was adapted from Rothenberg (20) and Silvern, Waterman, Sobesky, and Ryan (22). The stimulus for this measure was a series of six brief tape recorded dialogues. Three of the dialogues were taken directly from Rothenberg (20) and depict adult (husband-and-wife) exchanges in which one of the portrayed characters changes from an initial positive or neutral

affect to a negative affect (sadness, anger, or fear). The remaining three dialogues were adapted from Silvern et al. (22) and present child (brother-and-sister) exchanges depicting the same changes in affect as in the adult interactions. The stimulus dialogues were counterbalanced such that a particular negative affect was expressed by both a male (adult or child) story character and a female (adult or child) story character. After listening to each of the six tapes, the children were asked two questions, "How did the main character feel?" (Feelings question) and "Why did he(she) feel that way?" (Motives question). If a child failed to answer a question, it was repeated one time. The children's responses were recorded.

The "feeling" responses were scored according to Rothenberg's (20) original procedure. Two points were given if the child accurately identified a change in feelings and the specific feelings involved. One point was awarded if the child correctly labeled one of the actor's feelings. No points were given if there was no mention of feelings and a score of -1 was assigned if the child incorrectly identified a feeling. Rothenberg's (20) procedure for scoring "motive" responses was simplified for this study. Two points were awarded if the child offered a reason that (a) was not stated in the story, but had to be inferred from the content or nature of the interaction or (b) focused on some "private" feeling or thought the actor might be having in the situation. One point was given if the child's answer was a repetition of an actor's relevant phrase or was a simple explanation that followed directly from the story. Zero points

were awarded if the child responded with "I don't know" or provided an opinion that did not answer the question (but did not misrepresent the essential meaning of the story). An answer was scored as a -1 if the child misrepresented, added to, or subtracted from the story to such a degree that the response altered the main points of the story or indicated that the child misunderstood the story.

To assess inter-rater agreement on the affective perspective-taking measure, approximately one-third of the children's responses were independently rated by two judges. When there was a discrepancy, the rating made by the individual designated as the primary rater for that subject was used. Inter-rater agreement was 95.3% for "feeling" responses and 89.3% for "motive" responses.

c. Hi and Lo Empathy/Affective Perspective-Taking (APT) Groups. Median splits within sex were used to categorize children into Hi and Lo Empathy and APT groups. Consistent with Bryant's (7) findings, females were found to have significantly higher empathy scores (M = 14.77; median split between 15 and 16) than males (M = 11.95; median split between 11 and 12), t (115) = 4.53, $p < .001$. The Hi and Lo APT groups were determined from the children's total scores (feelings and motives scores combined) for all six dialogues (possible range = -12 to 24).[2] Again, females were found to have significantly higher scores (M = 13.34; median split between 13 and 14) than their male counterparts

(M = 11.48; median split between 11 and 12), t(115) = 3.96, p < .001. A weak, but significant, relationship was found between the children's scores on the empathy and affective perspective-taking measures, r = .19, p < .05. There were 34 children (19 boys and 15 girls) in the Hi Empathy/Hi APT group, 22 children (12 boys and 10 girls) in the Hi Empathy/Lo APT group, 28 children (14 boys and 14 girls) in the Lo Empathy/Hi APT group, and 33 children (19 boys and 14 girls) in the Lo Empathy/Lo APT group.

3. Dependent Measures

a. Machiavellianism. Braginsky's (6) measure of machiavellianism in children was used in this study. The scale requires children to indicate agreement or disagreement with 16 statements (e.g., "The best way to handle people is to tell them what they want to hear"). Fifth-grade children identified as highly machiavellian on the basis of their scores on this measure have been found to use manipulative interpersonal strategies more frequently, more "effectively," and to have greater control over the impressions they make on other people than less machiavellian fifth graders (6).

b. Teachers' Ratings of Helpfulness. The six female teachers were asked to rate each of their students' tendencies to help other children on an 8-item scale. The ratings were made approximately midway through the academic year. Four of the statements on the scale describe a situation in which the need of another child is obvious (e.g., "A child has dropped an armful of school books in a puddle") and four describe a situation in which the need is

subtle and must be inferred (e.g., "A child has accidently caused other children to fail on a group project").[3] Teachers were asked to rate how likely they thought it would be for each child in their class to offer comfort or assistance in each situation on a 5-point scale from 1 (not likely at all) to 5 (extremely likely). The range of possible scores for both Help: Obvious Need and Help: Subtle Need was 4 to 20.

c. Motive for Others' Helping. The children's perception of the prosocial motivations of others was tapped by a modified version of the Prosocial Reasoning Test (16, 17). The children were presented with four pictured prosocial vignettes and accompanying narrations in which one child aids another child of the same sex. The stimuli for boys and girls were identical with the exception that the sex of the pictured characters was congruent with the child's own sex. An example of a vignette follows:

> Mary and Amy were going to the school cafeteria at lunchtime. When they were in line, Amy discovered that she didn't have any money--she had accidently lost it. Mary offered to let Amy have part of her lunch.

Following the presentation of each vignette, the children read four possible reasons why the character in the story had helped. They were asked to indicate on a 5-point scale how likely they thought it was that the character had helped for each reason listed. Two of the reasons were designed to be, and confirmed by pretesting to be, self-oriented (e.g., "Mary thought that Amy might be more likely to share something with her later on"); two

of the reasons reflected other-oriented motivation (e.g., "Mary didn't want Amy to be hungry"). The range of possible scores for both self-oriented and other-oriented reasons was 8 to 40.

d. Motive for Own Helping. The children's perception of their own prosocial motivation was tapped by a brief interview procedure described by Bar-Tal, Raviv, and Shavit (4). Children were asked whether they sometimes help other children (all of them said they did). Next they were asked to explain why they helped when they did. The children's responses were recorded. Two independent judges later rated whether a child's response included (scored 1) or did not include (scored 0) a self-oriented reason; the same scoring procedure was used to indicate the presence or absence or an other-oriented reason. Inter-rater agreement on the self-oriented and other-oriented judgments for the entire sample was 99.2% and 94.9%, respectively. Disagreements were resolved through discussion.

4. Procedure

The group sessions were conducted in the children's regular classrooms. The Bryant (7) empathy scale and the Braginsky (6) machiavellianism measure were administered at this time. The children were instructed that the purpose of the session was to "study what fourth and fifth graders think about feelings." The children were informed that there were no right or wrong answers to the questions and that we were only interested in their opinions. Teachers were given the helpfulness rating forms following the group testing session. The completed forms were collected approximately one week later.

The individual testing sessions were conducted approximately three weeks after the group sessions. These sessions took place in a small room located in each school building. The presentation order of (a) the affective perspective-taking measure and (b) the two helping motives measures was counterbalanced (the "motive for others' helping" measure always preceded the "motive for own helping" interview). In administering the affective perspective-taking measure, the presentation order of the six tape recorded dialogues was randomized and the children were told that the husband-and-wife (and brother-and-sister) pairs were different on each tape. Concerning the "motive for others' helping" measure, both (a) the presentation order of the four vignettes and (b) the presentation order of the self- and other-oriented reasons within a vignette were systematically varied.

C. RESULTS

1. Machiavellianism

The children's machiavellianism scores were analyzed in a 2 (Empathy Level: Hi/Lo) x 2(APT Level: Hi/Lo) x 2(Sex of Subject) analysis of variance. Lo empathy children were found to have significantly higher machiavellianism scores ($\underline{M}$ = 6.23) than Hi empathy children ($\underline{M}$ = 5.04), $\underline{F}(1, 109) = 6.19$, $\underline{p} < .05$. The main effect of Empathy Level was qualified, however, by a significant interaction of Empathy Level and APT Level, $\underline{F}(1, 109) = 5.53$, $\underline{p} < .05$. A Newman-Keuls test revealed that children in the Lo Empathy/Hi APT group had significantly higher scores ($\underline{M}$ = 6.93) than did children in the Hi Empathy/Hi APT ($\underline{M}$ = 4.74), Hi Empathy/Lo APT ($\underline{M}$ = 5.50), and Lo Empathy/Lo APT ($\underline{M}$ = 5.64) groups; the means

of the latter three groups were not found to differ significantly from one another. Consistent with Braginsky's (6) findings, the distribution of scores for males and females on this measure was found to be very similar (Ms = 5.64 and 5.68, respectively).

2. Teachers' Ratings of Helpfulness

As indicated earlier, two scores were derived from the teachers' responses on the helpfulness rating scale. The teachers' Help: Obvious Need and Help: Subtle Need ratings were significantly correlated in each of the six classes, rs ranging from .50 to .80; overall $r = .71$, $p < .001$.[4] Not surprisingly, teachers rated their students as more likely to help when the need of the others is obvious (M = 16.05) than when the need is subtle and must be inferred (M = 11.38), $t(115) = 19.04$, $p < .001$.

Separate 2(Empathy Level: Hi/Lo) x 2(APT Level: Hi/Lo) x 2(Sex of Subject) analyses of variance were performed on the Help: Obvious Need and Help: Subtle Need scores.

Girls were rated as more likely to help (M = 16.96) than were boys (M = 15.29) when the other's need is obvious, $F(1, 108) = 10.61$, $p < .001$. In addition, a marginally significant interaction of Empathy Level and APT Level was found on this measure, $F(1, 108) = 3.13$, $p < .08$, reflecting a tendency for children in the Lo Empathy/Hi APT group to be rated less helpful in obvious need situations (M = 15.00) than children in the Hi Empathy/Hi APT (M = 16.48), Hi Empathy/Lo APT (M = 16.00), and Lo Empathy/Lo APT (M = 16.55) groups.

On the Help: Subtle Need index, girls were again rated as more likely to help ($\underline{M}$ = 12.57) than boys ($\underline{M}$ = 10.38), $\underline{F}(1, 108)$ = 15.06, $\underline{p} < .001$. A main effect of Empathy Level was also found, $\underline{F}(1, 108) = 4.18$, $\underline{p} < .05$. Hi empathy children were rated as more likely to help when the need of the other is subtle ($\underline{M}$ = 12.05) than were Lo empathy children ($\underline{M}$ = 10.77).

3. Motive for Others' Helping

The children's scores on the modified version of the Prosocial Reasoning Test were analyzed in a 2(Empathy Level: Hi/Lo) x 2(APT Level: Hi/Lo) x 2(Sex of Subject) x 2(Other's Motivation: Self vs Other) analysis of variance with the last variable as a repeated measure. The only significant finding was a main effect of Other's Motivation, $\underline{F}(1, 109) = 334.21$, $\underline{p} < .001$. The fourth and fifth graders' ratings reflected the belief that the characters pictured in the vignettes had helped for more other-oriented ($\underline{M}$ = 33.70) than self-oriented ($\underline{M}$ = 23.17) reasons.

4. Motive for Own Helping

The children's scores on this measure were analyzed in a 2(Empathy Level: Hi/Lo) x 2(APT Level: Hi/Lo) x 2(Sex of Subject) x 2(Own Motivation: Self vs Other) analysis of variance with the last variable as a repeated measure. The children indicated that their own helping behavior (like the helping behavior of others) was motivated more by other-oriented ($\underline{M}$ = .59) than self-oriented ($\underline{M}$ = .15) reasons. The main effect of Own Motivation was qualified, however, by a significant interaction of this variable with

Empathy Level, $F(1, 109) = 7.80$, $p < .01$. A Newman-Keuls test revealed that although the likelihood of Hi and Lo empathy children offering a self-oriented reason for their own helping behavior was comparable (Ms = .11 and .20, respectively), Hi empathy children were significantly more likely to offer an other-oriented reason ($M = .73$) than were their less empathic counterparts ($M = .46$).

D. DISCUSSION

The present investigation explored the role of empathic disposition, and perspective-taking ability in the child's machiavellianism, prosocial behavior, and motive for helping. As expected, children who displayed a heightened awareness of, but an insensitivity to, the feelings of others reported being especially machiavellian in their interactions with others. Although these Lo Empathy/Hi APT children were not found to express an abundance of self-serving motives for helping as predicted, they tended to be rated by their teachers as less helpful than their peers when another individual's need is obvious and salient. These findings suggest that the child who is particularly insightful about the feelings of others may be inclined to act in a manipulative and unhelpful manner unless that insightfulness is tempered with emotional sensitivity and compassion.

Highly empathic children were found to have significantly lower machiavellianism scores and to cite other-oriented reasons for their own helping behavior significantly more frequently than their less-empathic peers. The results for the teachers' ratings of helpfulness, although generally consistent with this pattern, were not fully expected. Highly empathic children (regardless of their level of affective perspective-taking ability) were rated by their teachers as significantly more likely to help than were low empathic children in those situations in which another individual's need is subtle and must be inferred. The failure to find a similar Hi versus Lo Empathy Level effect for "obvious need" situations suggests that other factors, such as social norms regarding helping, may also serve as important motivators of children's helping behavior in situations in which the unfortunate other's plight is salient and undeniable.

The implications of the findings of the present study are undoubtedly limited by the exclusive use of self-report and teacher-report indices. Nonetheless, the results do indicate that a consideration of both a child's empathic disposition and affective perspective-taking ability in future studies may be necessary to predict and understand particular interpersonal behaviors and attitudes. Moreover, although certain cognitive (i.e., role-taking) abilities may even be necessary for an empathic response to occur (11, 12), the present findings suggest that the "sharing" of another's affect may be the critical component of empathy and the one which serves to motivate helping behavior that is truly performed for the sake of the other.

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FOOTNOTES

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[1]In a study involving adult respondents, Davis (1982, cited in 8) found that whereas scores on the Empathic Concern subscale of his Interpersonal Reactivity Index were related to subjects' emotional reactions to and subsequent helping of a young women in distress, scores on the Perspective Taking subscale were unrelated to both emotional reactions and subsequent helping behavior.

[2]When "motives" scores are used in the median split instead of total scores, Hi and Lo APT assignments change in only 9 of 117 subjects. Consequently, the results of the investigation are very similar when either median split is used. Concerning an analysis based upon "feelings" scores alone, there is simply not enough variance in the children's scores to allow for a meaningful median split (97 out of 117 subjects had "feelings" scores of 5, 6, or 7).

[3]Pretesting of the scale with undergraduates revealed that the statements written to reflect "obvious need" and "subtle need" situations were perceived as such. In addition, the eight problem situations were evaluated to be of comparable seriousness.

[4]One fourth-grade boy who was included in other aspects of the study was not rated on helpfulness by his teacher because he was a new student in her class.