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EMPATHY AS A MOTIVATOR OF PROSOCIAL BEHAVIOUR IN
CHILDREN

by

Jennifer Alexandra Poole

B.A. (Hons.), University of Waterloo, 1988

THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF
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Empathy as a Motivator of Prosocial Behaviour in Children

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Abstract

Previous findings have indicated that empathy is a weaker motivator of prosocial behaviour among children than adults. However, research with children has typically involved a general measure of empathy and a contextually unrelated measure of prosocial behaviour. In the present study, one purpose was to examine whether prosocial behaviour towards a target person varied as a function of both a target person-specific empathy measure and a general empathy measure. A second purpose was to investigate whether empathy motivates allocentrically, rather than egocentrically, directed prosocial behaviour by using an ease-of-escape manipulation adapted from research with adults.

Children's empathy with characters depicted in seven videotaped vignettes (Strayer's Empathy Continuum) was assessed for 180 ten-year-old girls providing a general empathy measure. Children's person-specific empathy was also assessed, using a videotape of a ten-year-old girl, who was in need of help with her schoolwork. Prosocial behaviour was measured in terms of amount of time offered to help. Half of the children thought that they would see this girl in the future (difficult-escape condition); the other half thought that they would not see her in the future (easy-escape condition).

A 2 (high versus low person-specific empathy) x 2 (high versus low general empathy) x 2 (easy versus difficult escape) ANOVA indicated that children with high general empathy scores offered significantly more help than did those with low general empathy scores. Contrary to expectations, children with high or low person-specific empathy scores did not significantly differ in the amount of help offered. While these findings support the general view of empathy as a motivator of children's prosocial behaviour, they do not indicate that children are more likely to help another person if their empathic responding is activated towards that person. Additional findings confirmed past research indicating more help for the

target person in the difficult-escape than in the easy-escape condition. Although mean differences varied in the directions expected for the general empathy and ease-of-escape interaction, the interactions for empathy and ease-of-escape were not significant. Therefore, the hypothesis that empathy motivates allocentric prosocial behaviour could not be confirmed.

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Introduction

The purpose of the present investigation was to examine the effects of empathy on prosocial behaviour. The study of empathy, an affective-cognitive process involving the sharing of another person's feelings, is important in order to understand the social functioning of adults and children. Empathy has been identified by developmental theorists as a major determinant of prosocial behaviour (Eisenberg & Miller, 1987; Feshbach & Roe, 1968; Hoffman, 1975, 1981; Radke-Yarrow & Zahn-Waxler, 1984). Prosocial behaviour generally has been defined as voluntary behaviour which results in benefits for another (Eisenberg & Miller, 1987). However, the motive for prosocial behaviour may vary (Batson, 1987). Two types of motivation for prosocial behaviour have been identified: egocentric (self-focused) and allocentric (other-focused). Egocentrically motivated prosocial behaviour is voluntary behaviour intended to benefit another, which is performed with the expectation of receiving external rewards (Archer, Diaz-Loving, Gollwitzer, Davis, & Foushee, 1981) or avoiding externally produced aversive stimuli (Piliavin & Piliavin, cited in Toi & Batson, 1982). In contrast, allocentrically motivated prosocial behaviour is voluntary behaviour intended to benefit another, which is not performed with the expectation of receiving external rewards or avoiding externally produced aversive stimuli (Batson, 1987). A central hypothesis in this investigation is that empathy motivates children's allocentric prosocial behaviour.

Findings from studies which have examined the theoretical prediction that empathy motivates prosocial behaviour generally indicate that the role of empathy as a facilitator of prosocial behaviour is somewhat weaker for children than for adults (Eisenberg & Miller, 1987). In studies with adults, a number of different measures of empathy have been found to relate positively to indices of prosocial

behaviour, such as volunteering time to assist needy others or donating money to needy others (Eisenberg & Miller, 1987). Some of the strongest indicators that empathy motivates prosocial behaviour have occurred for adults' self-reported empathy in response to simulated experimental situations such as those employed by Batson and his colleagues (Batson et al., 1991; Batson, Duncan, Ackerman, Buckley, & Birch, 1981; Batson et al., 1988; Batson, O'Quin, Fultz, & Vanderplas, 1983; Coke, Batson, & McDavis, 1978; Fultz, Batson, Fortenbach, McCarthy, Varney, 1986; Toi & Batson, 1982). In these studies both empathy and prosocial behaviour were assessed in response to people in emotion-evoking events, who participants were led to believe were real and in need of help.

Although two recent studies with children have used experimental situations resembling Batson's (Eisenberg et al., 1989; Eisenberg et al., 1990), these studies are not typical of research investigating children's empathy and prosocial behaviour. Instead, in most studies with children, empathy with hypothetical others has been measured, and then has been related to prosocial behaviour in a context unrelated to that in which empathy was assessed. Not surprisingly, children's self-report indices of empathy have not been found to be consistently related to measures of their prosocial behaviour (Eisenberg & Miller, 1987). Such evidence has led some researchers to question whether empathy does motivate prosocial behaviour among children (Underwood & Moore, 1982) and to suggest that the strength of empathy as a facilitator of prosocial behaviour may develop with age.

Any conclusions regarding the effect of empathy on prosocial behaviour in children, in contrast to adults, seem premature. Before a conclusion can be reached as to whether a similar, weaker, or different kind of relationship exists between children's and adults' empathy and prosocial behaviour, it seems advisable to employ with children the same experimental designs that have shown

empathy to be a strong motivator of prosocial behaviour for adults. Therefore, a design used in research on adults' empathy and prosocial behaviour was adapted to children in the present study.

As already indicated, some of the strongest indications that empathy motivates prosocial behaviour have come from studies with adults in simulated experimental situations in which both empathy and prosocial behaviour are assessed in response to the same stimulus person and situation (e.g., Coke et al., 1978). Typically, these studies have involved exposing subjects to a person in distress (target person) and then assessing a subject's empathy towards the target person by means of an emotional response checklist. Subsequently, subjects have been given an opportunity to offer help to the distressed person. Whether or not subjects offer help provides an index of their prosocial behaviour.

In contrast to such target person-specific measures used with adults, research with children has typically involved the use of some general measure of empathy and a contextually unrelated measure of prosocial behaviour. For example, previous research on children's empathy has generally employed global dispositional empathy questionnaires (e.g., Bryant, 1982) or methods indexing children's overall empathic responses to a series of characters in emotional contexts presented in narratives and drawings, photos, or slides (Feshbach & Roe, 1968), or most recently, emotion-evoking videotapes (Feshbach, 1987; Strayer, 1987). Previous research examining the relation of empathy and prosocial behaviour has typically assessed empathy in such general ways and then presented children with an opportunity to engage in a situation-specific prosocial behaviour, such as donating candy to peers (e.g., Miller, 1979). A problem with this type of study is that it attempts to relate a measure of empathic disposition (questionnaire) or of generalized empathic responsiveness (empathy summed across videotaped stimuli) to a specific instance of prosocial behaviour, occurring in a different

context. As Peraino and Sawin (cited in Underwood & Moore, 1982) demonstrated in preliminary findings, relationships between prosocial behaviour and empathy measured in response to the same target person are stronger than relationships between prosocial behaviour and empathy, as measured for a person other than the one toward whom the prosocial behaviour is directed .

A major objective of the present study was to investigate the importance of empathy as a motivator of prosocial behaviour among children by implementing both a general empathic responsivity measure and a target person-specific measure of empathy and examining how subsequent prosocial behaviour directed towards the target person varies as a function of the amount of both of these types of empathy. General empathic responsivity was assessed using the Empathy Continuum (EC) scoring system (Strayer, 1987). Empathy is scored based on the degree of concordant emotion reported for oneself and the stimulus person and its cognitive mediation. Although the EC provides a more quasi-naturalistic and specific context for empathy than do the dispositional empathy questionnaires, it does not necessarily permit measurement of empathy and prosocial behaviour in response to the same person and situation. Therefore, a measure of person-specific empathy was designed for the present study. This person-specific empathy was assessed by presenting children with a videotape of a person in need and assessing children's empathy towards this person (person-specific empathy), based on the same scoring system as used in the general EC measure. The amount of help children subsequently offered to this target person provided an index of prosocial behaviour.

It was expected that children with high scores on the person-specific measure of empathy would offer more help to the target person than children with low scores on the person-specific measure of empathy. Similarly, it was predicted

that children with high scores on the general EC measure would offer more help to the target person than children with low scores on the general EC measure. However, the effect of person-specific empathy on prosocial behaviour was expected to be larger than the effect of general empathy on prosocial behaviour given that person-specific empathy and prosocial behaviour were being assessed in the same context (i.e., in response to the same stimulus person). Summarizing these hypotheses in terms of expected outcomes on parametric tests, significant main effects were expected for both person-specific and general empathy, with the magnitude of the person-specific empathy main effect being greater than the general empathy main effect.

A second objective of this study was to assess differences between allocentric and egocentric prosocial behaviour, an important consideration in theories regarding the motivation of prosocial behaviour. Current discussion regarding the role of empathy in prosocial behaviour concerns whether empathy facilitates prosocial behaviour which is allocentrically directed towards reducing another's distress (Batson, Fultz, & Schoenrade, 1987b) or egocentrically directed towards reducing one's own level of shared distress (Piliavin & Piliavin, cited in Toi & Batson, 1982). Research with adults, conducted by Batson and his colleagues (Batson et al., 1989; Batson et al., 1991; Batson et al., 1981; Batson et al., 1988; Batson et al., 1983; Fultz et al. 1986; Toi & Batson, 1982), has provided evidence that empathy motivates allocentric prosocial behaviour.

One empirical difficulty has been to distinguish egocentric from allocentric motivation. In their efforts to demonstrate that empathy facilitates allocentric prosocial behaviour, Batson and his colleagues (Batson et al., 1981; Batson et al., 1983; Toi & Batson, 1982) have relied on an ease-of-escape condition to differentiate egocentric from allocentric helping. Their findings have shown that subjects' helping behaviour will vary as a function of both empathy and ease-of-

escape. In particular, ease-of-escape is considered to be of central concern to a person whose prosocial behaviour is egocentrically motivated. The ease-of-escape condition was manipulated by controlling whether or not subjects thought they could avoid seeing a distressed victim in the future. For half of the subjects, escape was made easy. These subjects did not expect to see the victim again in the future. For the other half of subjects, escape was difficult. These subjects expected to see the victim again in the future and hence, to be reminded of the victim's unmet need. Batson and his colleagues (Batson et al., 1981; Batson et al., 1983; Toi & Batson, 1982) reasoned that in an easy-escape condition, the personal costs of guilt and shame for not helping should be relatively low, whereas in a difficult-escape condition, these costs should be high. Therefore, an egocentrically motivated person is expected to be less likely to help in the easy-escape condition, in which personal costs for not helping are low, than in the difficult-escape condition. In contrast, an empathically (allocentrically) motivated person should be more other-person than self-oriented in his or her concerns. Therefore, allocentrically motivated persons should be unaffected by the ease-of-escape conditions: they will be as likely to help in the easy-escape as in the difficult-escape condition. The results obtained by Batson and his colleagues supported these hypotheses (Batson et al., 1981; Batson et al., 1983; Toi & Batson, 1982).

Despite fairly extensive research with adults, few studies have distinguished between egocentric and allocentric motivations with an ease-of-escape manipulation when examining the relation between empathy and prosocial behaviour among children. Given the generally positive findings for such research with adults, investigations employing a similar design with children may yield stronger empathy-prosocial behaviour associations than have been typical in the past.

Those few studies that have differentiated between egocentrically and allocentrically motivated prosocial behaviour among children by examining how empathy interacts with ease-of-escape to affect helping (e.g., Eisenberg, McCreath, & Ahn, 1988) have provided only limited support for Batson's hypotheses, as outlined above. However, such studies have not been direct replications of Batson's work. For example, Eisenberg et al. (1988) naturalistically observed spontaneous and requested helping behaviours in children's play sessions and defined these as analogous to Batson's easy-escape and difficult-escape conditions. Eisenberg et al.'s (1988) operationalization of easy- and difficult-escape was potentially problematic since the naturalistic setting reduced the researchers' control over differences in children's perceptions of how easy or difficult it was to escape from a prosocial action. In addition, children's empathy in this study was measured towards a person in a context unrelated to the prosocial behaviour. Although it was found that 5-year-olds' empathy and personal distress, as measured by facial/gestural indices, were moderately correlated to spontaneous and requested prosocial behaviours, respectively, self-reported empathy was unrelated to any type of prosocial behaviour. It can be argued that because this study did not directly test Batson's mediational hypothesis, it provided a weaker test of Batson's theory. The present study extends Batson's experimental paradigm to children in an effort to test directly the hypotheses generated regarding the effects of allocentric and egocentric motivations on prosocial behaviour.

In the present study, escape conditions used by Toi and Batson (1982) were replicated and employed with a sample of children, utilizing a 2 (high versus low person-specific empathy) x 2 (high versus low general empathy) x 2 (easy versus difficult escape) factorial design. Children were assigned to high versus low

person-specific empathy conditions and high versus low general empathy conditions based on their scores on the person-specific empathy measure and the general empathic responsivity measure (EC), respectively. The general empathic responsivity measure used assesses children's empathic responsivity to numerous persons across contexts, both euphoric and dysphoric in content. In contrast, the person-specific empathy measure employed assesses children's empathy to a specific person in a particular situation. This specific person was also the designated recipient of the subsequent prosocial behaviour measure of helping.

The escape condition was designed so that half the children were presented with an easy-escape manipulation. The other half were presented with a difficult-escape manipulation. Based on the findings of Toi and Batson (1982), two two-way interactions were predicted. First, children's helping scores were expected to vary as a function of person-specific empathy and ease-of-escape (see Table 1).

Insert Table 1 about here

Specifically, children in the easy-escape condition who scored low in person-specific empathy were expected to help less than children in the easy-escape condition who scored high in person-specific empathy and children in the difficult-escape condition who scored high or low in person-specific empathy. Thus, the interaction between person-specific empathy and ease-of-escape was expected to assume a pattern whereby children's helping scores would be lower in one person-specific empathy/ ease-of-escape condition than the other three. Second, children's helping scores were expected to vary as a function of general empathy and ease-of-escape (see Table 2). Once again, children in the

Insert Table 2 about here

easy-escape condition who scored low in general empathy were expected to help less than children in the easy-escape condition who scored high in general empathy and children in the difficult-escape condition who scored high or low in general empathy. Therefore, the predicted pattern of children's helping scores in the interaction between general empathy and ease-of-escape was such that children were expected to help less in one general empathy/ ease-of-escape condition than the other three.

A final objective of the present study was to demonstrate that children engage in allocentric prosocial behaviour when experiencing empathy, defined as an emotional response that stems from another's emotional state and that is congruent with the other's emotional state or situation (Eisenberg & Strayer, 1987). Although the empathy-allocentrism hypothesis has found empirical support in studies of adults, most studies examining this issue have equated empathy with sympathy. For example, Batson defines empathy in terms of sympathy, i.e., as "other-oriented feelings of concern, compassion and tenderness experienced as a result of witnessing another person's suffering" (Batson, Fultz, & Schoenrode, 1987a, p. 181). In agreement with others, however, my position is that empathy is distinct from sympathy, although both may be present in response to the same context (Strayer, 1987; Wispe, 1987). Empathy involves the sharing of the perceived emotion (e.g., sadness, fear, happiness) of another. In contrast, sympathy refers to feelings of sorrow or concern for another. Thus, I would argue that Batson and his colleagues have provided most direct evidence for a sympathy- allocentrism hypothesis, and less direct evidence for an empathy-

allocentrism one. Given that sympathy is often the consequence of empathy (Eisenberg & Strayer, 1987), it still seems accurate to infer from Batson's work that empathy facilitates allocentric prosocial behaviour. However, it remains necessary to examine the empathy-allocentrism hypothesis by measuring empathy directly.

In summary, four patterns of results explaining children's prosocial behaviour were predicted for this study: a main effect for person-specific empathy, a main effect for general empathy, a two-way interaction between person-specific empathy and ease-of-escape, and a two-way interaction between general empathy and ease-of-escape. First, it was hypothesized that children who scored high on the person-specific measure of empathy would offer more help to the target person than children who scored low on this measure. It was also hypothesized that children who scored high on the general measure of empathy would offer more help to the target person than children who scored low on this measure. Given that person-specific empathy and prosocial behaviour were measured in response to the same person and context, person-specific empathy was expected to exert a greater influence than general empathy on children's prosocial behaviour. Furthermore, it was hypothesized that empathy would be a facilitator of allocentric as opposed to egocentric prosocial behaviour in children. It was expected that children in the easy-escape condition who scored low in person-specific empathy would offer less help to the target person than children in the easy-escape condition who scored high in person-specific empathy and children in the difficult-escape condition who scored high or low in person-specific empathy. It was also expected that children in the easy-escape condition who scored low in general empathy would offer less help to the target person than children in the easy-escape condition who scored high in general empathy and children in the difficult-escape condition who scored high or low in general

empathy.

Method

Subjects

One hundred and eighty 10-year-old girls ($M = 10.54$ years, $SD = .62$ years) from schools in the Greater Vancouver area participated in the study¹.

Only female children were studied in order to maximize statistical power, given previously reported sex differences in empathy (Eisenberg & Lennon, 1983). In addition, because the person in need depicted in the target videotape was female, empathy and prosocial behaviours were expected to be facilitated when the potential helper was also female. On the basis of findings obtained in the present study, there will be clearer grounds for future decisions regarding later extension of this investigation to boys. All children were recruited from public schools in middle-class neighbourhoods. A female experimenter visited children in their classrooms to explain that she needed some girls to participate in her research. Those children who returned completed parental consent forms (see Appendix A) participated in the study.

Procedure

Children participated individually in procedures administered by a female experimenter in their schools. Upon meeting the experimenter, children were asked what they had heard from their parents and friends about this study. This information aided the experimenter in determining how much the children knew about the purposes of the study. None of the children reported knowing about the actual purpose of the prosocial behaviour measure and thus, none had to be eliminated from the study in order to prevent biasing the results. The

¹ An additional four children participated in the study but these children were excluded from the final analyses because the experimenter committed procedural error for one of the children, another child knew the child acting in the person-specific vignette, and two of these children wished to terminate the study before completion.

experimenter then said to the subject:

I am interested in what you think about some videotapes that I have. I am going to show you eight videotapes and after each one, I am going to stop the videotape and ask you some questions about what the characters were doing and what you think about that. The answers that you give to my questions will be just between you and me. I won't tell anyone else what you told me so I want you to be as honest as possible when answering my questions. I also want you only to answer my questions if you feel comfortable about them. If you don't like my questions or if you don't want to answer any more questions, I want you to let me know right away and we'll stop this interview. I only want to do this if you want to, so I want you to let me know the minute you don't feel like doing this anymore and we'll stop. O.K.? Do you have any questions about any of this?

After answering any questions, the experimenter then turned on the television.

Each subject viewed a total of eight emotionally evocative vignettes presented on T.V. via videotape, lasting approximately thirty minutes. Seven of these vignettes were designed as stimuli for use in a previous administration of the Empathy Continuum (Strayer, 1989). These vignettes are briefly described in Appendix B. The eighth vignette (the target vignette) was developed specifically for this study to serve as a stimulus for the assessment of both person-specific empathy and helping behaviour. This one minute vignette showed an interview with a 10-year-old girl, named Mary, who attends a local elementary school. The children viewed Mary sitting in a wheelchair, talking about how her legs had been broken and her spine damaged in a recent car accident. Mary described how much she used to like school. She explained that just before her accident her parents moved from White Rock to Burnaby so it had been necessary for her to change schools. However, she explained that she had not yet been able to attend her new school because of her accident. She reported missing more than a month of school due to her long hospitalization and thus, being very behind in her schoolwork. She reported being afraid that she won't pass this year at school if

she does not find another student in her new class to help her with her studies. She stated that she would feel awful if she failed this year. Mary also stated being afraid that she won't make any new friends because she cannot move around very much.

The order of presentation of the vignettes was counterbalanced so that for half of the children the target vignette preceded the EC vignettes and for the other half the EC vignettes preceded the target vignette. The order of presentation of the vignettes was varied to investigate whether primacy or recency of the target vignette affected the strength of the relation between person-specific empathy and prosocial behaviour.

General empathic responsivity was assessed by means of the Empathy Continuum Scoring System. For each of the seven EC vignettes, children were asked after viewing the vignette "How did you feel when you watched the video?" Their reported emotion (if any) and its intensity (1 = a little; 2 = a lot) was recorded (see Appendix C). Similar coding was done for their responses to: "How did the character feel?" These responses provided the basis for scoring affect match (1 = similar emotion in self and character; 2 = same emotion, different intensity; 3 = same emotion, same intensity). In addition, the cognitive mediation for any shared affect was scored at one of six levels, in response to: "Why were you, or what made you feel sad, angry, happy, etc.?" EC scores for each of the seven vignettes could range from 0 to 19 (see Appendix E). A total EC score was calculated by summing each subject's scores across the seven vignettes. Children's total EC scores could range from 0 to 133. A high score on the EC (i.e., any score above the median) indicated the presence of shared affect and that a high level of cognitive mediation was involved in the subject's reported empathy across vignettes.

Person-specific empathy was assessed by applying the questions and

scoring system of the EC, described above, to the girl in the target vignette (see Appendix D). Children's person-specific empathy scores could range from 0 to 19. A median split was used to assign children to high or low person-specific empathy groups. A high person-specific empathy score reflected that matched affect at a high level of cognitive mediation was involved in the subject's reported empathy in response to this specific person and context.

Children were assigned to one of the two ease-of-escape conditions (easy versus difficult escape) on a random basis. Children in the difficult-escape condition thought that they would see Mary in the future, whereas children in the easy-escape condition thought that they would not see Mary in the future, as described in the instructions to children, presented below.

After administering the empathy measures, the experimenter in all conditions stated:

Remember the video of the girl, Mary, about your age, who was in the car accident and had missed a lot of school because of her broken legs and spinal injury. Well, that videotape was actually filmed at Simon Fraser University and when I was talking to the person who interviewed Mary, I found out that Mary asked for and really needs a grade 5 student to help her catch up on the school work she missed while in the hospital. As Mary was saying in the video, her family has recently moved from White Rock to Burnaby. Actually, Mary's family has moved to this area of Burnaby and Mary was supposed to come to this school and be in grade 5 but then the accident happened and she hasn't been able to come to this school yet.

Instructions then varied as a function of ease-of-escape condition.

Children in the easy-escape condition were informed that they would be unlikely to see Mary in the future. Specifically, they were told:

Mary's going to be O.K. The doctors have diagnosed that Mary will be back on her feet and out of her wheelchair in a couple of months. However, since Mary is still in her wheelchair and will be for a few more weeks, and because it's difficult for her to get around in her wheelchair, the teachers here at school have

told her that she could get her schoolwork for the next few weeks to work on at home. So, Mary won't be coming to school for the next little while. She's going to stay at home and do her schoolwork at home. Mary's family is going to be moving again soon. This time her family is moving to Toronto. Because her family is moving to Toronto in the near future and since Mary is going to be staying at home to do her schoolwork, this means that she probably won't meet you at all at school in the future. But if you want to help her with her schoolwork in the next few weeks, she can arrange to meet you wherever you want.

Children in the difficult-escape condition were informed that they would be likely to see Mary in the future. Specifically, they were told:

Mary's going to be O.K. The doctors have diagnosed that Mary will be back on her feet and out of her wheelchair in a couple of months. Even though Mary is still in her wheelchair and will be for a few more weeks, the teachers here at school have decided that it is okay for Mary to come to school. So, Mary will be starting back to school next week. She'll be in the same grade as you so you won't have any trouble seeing each other. You'll get to meet her and be able to talk to her. And if you want to help her with her schoolwork in the next few weeks, you'll be able to set up a time that's good for you both.

All the children were then given a piece of paper and an envelope.

Children were told that they did not have to help because they were participating in an experiment, and that they had already helped the experimenter. Whether they helped Mary or not was up to them. Children were told that if they wished to help Mary, they should put their name on the piece of paper (see Appendix F), check any times they would be able to help, and place the form in the blank envelope given to them, and leave it in the box by the door. Children were told that if they did not wish to help, they should not write anything on the helping form but still place the form in the blank envelope, and leave it in the box by the door, also. The experimenter explained that she would not know who offered help or who did not since the box containing the envelopes would be given to the person who interviewed Mary, and that person would then contact and make arrangements with children who left their names. The experimenter then told the

children that she would wait for them outside the room while they did whatever they wanted about the helping.

The measure of prosocial behaviour was the amount of help that the children offered to Mary. Helping responses were calculated by multiplying the number of weeks help was offered by the number of minutes help was offered each week. Responses could range from 0 (not at all) to 300 (5 weeks x 60 minutes per week).

Once the children emerged from the room, the experimenter thanked them for their participation in the study. To serve as a check on the ease-of-escape manipulation, all children were then asked to rate on a 3-point scale (1 = no, 2 = maybe, 3 = yes): "From what you've heard, do you think that it's likely that you will see Mary at your school in the next little while?" The experimenter prefaced this question by telling the children that she wanted to be sure that they understood what she had told them about Mary because she was not sure that she was clear in her explanation. After answering the manipulation check question, the children were again thanked for their participation.

A few days after this study was completed in a particular school, all children were debriefed in groups in their school classrooms. The experimenter first asked the children what they thought the study was about in order to see if the children suspected the purpose behind the prosocial measure. The experimenter noted any suspicions that may have biased the children's responses with the purpose of eliminating such children from the study. None of the children appeared to be suspicious or biased in their responses and as a result, none were excluded from data analysis. During the debriefing, the experimenter explained that the purpose of this study was to see how different children react to films in general, but particularly to see how they react to the film about Mary, and whether any of them would feel like helping her:

I really didn't know how many kids would want, or not want to help her, given how busy kids are, and the only way I could think of getting really honest answers was to do it the way I did. My guess is that about half the kids will help, and half won't.

The experimenter asked the children if this seemed okay with them and if they had any opinion or questions about what the experimenter was doing.

Results

Descriptive Statistics

Person-specific empathy measure. Two coders scored the person-specific empathy measure. Interrater reliability, coded for 25% of subjects (45 of 180), was .84 (number of agreements divided by number of agreements plus disagreements). To correct for chance agreement, interrater reliability, as assessed by kappa (Cohen, 1960), was also calculated for 25% of subjects. The proportion of agreement between the two coders after chance agreement had been removed was .76. Children's scores on the person-specific empathy measure ranged from 0 to 19, with $M = 8.94$ and $SD = 3.92$.

General empathic responsivity measure (EC). Two coders scored the general empathic responsivity measure. Interrater reliability, coded for 25% of subjects (45 of 180), was .87 (number of agreements divided by number of agreements plus disagreements). To correct for chance agreement, interrater reliability, as assessed by kappa, was also calculated for 25% of subjects. The proportion of agreement between the two coders after chance agreement had been removed was .82. Children's total scores on the EC ranged from 7 to 91, with $M = 56.33$ and $SD = 16.58$. The means and standard deviations for children's scores on each of the seven EC vignettes, as well as the person-specific vignette, are reported in Table 3. As can be seen from Table 3, the means and standard

Insert Table 3 about here

deviations of the EC vignettes were generally similar to those found for the person-specific empathy vignette.

Helping measure. Children's scores on the helping measure ranged from 0 to 300, with $M = 95.61$ and $SD = 97.27$. Twenty six percent of subjects (46 of 180) did not offer any help to the girl in the target vignette. In contrast, 74% of subjects (134 of 180) did offer to help.

Analysis of Variance

ANOVAs were conducted in order to examine the effects of person-specific and general empathy on helping and to assess whether empathy interacts with ease-of-escape to affect helping.² Children were assigned to high versus low person-specific empathy groups on the basis of a median split on children's scores on the person-specific empathy measure (median = 9). Thirty-one children scored at the median on person-specific empathy and thus, were excluded from the analysis of variance. Similarly, children were assigned, on the basis of a median split on children's total EC scores, into high versus low general empathy groups (median = 61). Five children scored at the median on general empathy and were excluded from the analysis of variance. A 2 (high versus low person-specific empathy) x 2 (high versus low EC empathy) x 2 (easy versus difficult escape) x 2 (EC/ person-specific versus person-specific/EC order of presentation of vignettes) ANOVA was conducted on children's helping scores ($N = 146$). As

² Due to the fact that the distribution of helping scores was positively skewed, a square root transformation was performed on subjects' helping scores. ANOVAs were calculated, using the transformed helping scores as the dependent variable. The results of these ANOVAs were consistent with the ANOVAs conducted on the original helping scores. Therefore, only results conducted on the original helping scores are reported.

shown in Table 4, findings from this four-factor ANOVA revealed no significant effects for order, ensuring that the order of presentation of the vignettes did not influence the outcome of this study. Therefore, data were collapsed across order

Insert Table 4 about here

and a 2 (high versus low person-specific empathy) x 2 (high versus low EC empathy) x 2 (easy versus difficult escape) ANOVA was conducted on children's helping scores. The findings of this three-factor ANOVA are reported below in terms of specific hypotheses.

The first hypothesis predicted that children who scored high on the person-specific measure of empathy would offer more help to the target person than children who scored low on this measure. Similarly, it was expected that children who scored high on the general measure of empathy would offer more help to the target person than children who scored low on this measure. In partial confirmation of these predictions, a significant main effect for the EC was found, $F(1, 138) = 7.05, p < .0089$. Children with high general empathy (EC) scores offered significantly more help to the target person ($M = 114.17, SD = 81.56$) than did low scoring children ($M = 71.62, SD = 82.91$). As shown in Table 5,

Insert Table 5 about here

however, no effect for person-specific empathy was found. Children scoring high in person-specific empathy did not differ significantly in terms of amount of help offered to the target person ($M = 103.06, SD = 97.64$) from low scoring children ($M = 81.55, SD = 91.60$). In addition, it was expected that the effect of person-specific empathy on prosocial behaviour would be greater than the effect of

general empathy on prosocial behaviour. The absence of a significant main effect for person-specific empathy and the presence of a significant main effect for general empathy did not support this hypothesis.

Two significant two-way interactions were expected based on the hypothesis that empathy motivates allocentrically as opposed to egocentrically directed prosocial behaviour. First, it was expected that children with low person-specific empathy scores in the easy-escape condition would offer less help to the target person than children with high person-specific empathy scores in the easy-escape condition and children in the difficult-escape condition scoring high or low in person-specific empathy. The results were not consistent with these predictions. As shown in Table 5, the person-specific empathy x ease-of-escape interaction was not significant. The means and standard deviations of children's helping for each of the four cells involved in this two-way interaction are presented in Table 6. As can be seen from Table 6, the cell means were not

Insert Table 6 about here

consistent with the interaction pattern that was expected. Specifically, this pattern was not observed because children in the easy-escape condition who scored high in person-specific empathy did not offer more help to the target person ($M = 72.85$, $SD = 81.51$) than those who scored low in person-specific empathy ($M = 63.33$, $SD = 85.63$), $t(138) = 1.03$, $p > .05$.

Second, it was also expected that children in the easy-escape condition scoring low in general empathy would offer less help to the target person than children in the easy-escape condition scoring high in general empathy and children in the difficult-escape condition scoring high or low in general empathy. Once again, the results were not consistent with these predictions. As shown in

Table 5, the interaction between general empathy and ease-of-escape was not significant. However, as revealed in Table 7, the means of the general empathy x ease-of-escape interaction varied in a manner consistent with the expected

Insert Table 7 about here

pattern. A planned comparison, contrasting the amount of helping in the low general empathy/ easy-escape condition with the amount of helping in the other three general empathy/ escape conditions revealed a significant difference, $F(1, 138) = 13.72, p < .001$.

In contrast to the nonsignificant two-way interactions, a main effect for the escape conditions was found. The main effect for escape conditions supported expectations that ease-of-escape influences children's helping. Children offered more help to Mary ($M = 119.56, SD = 99.42$) in the difficult-escape condition than in the easy-escape condition ($M = 71.67, SD = 89.35$). Furthermore, a check on children's understanding of the ease-of-escape manipulation, assessed by children's responses to the question "From what you've heard, do you think that it's likely that you will see Mary at your school in the next little while?", showed that the ease-of-escape manipulation was successfully understood, $t = -30.99, p < .0001$. Children in the easy-escape condition perceived it to be very unlikely that they would see Mary in the future ($M = 1.18, SD = .44$) whereas children in the difficult-escape condition perceived it to be very likely ($M = 2.93, SD = .29$).

This finding of a main effect for escape conditions supports the reasoning of Toi and Batson (1982) regarding why people would be expected to help more in difficult- than easy-escape conditions. Nevertheless, the absence of the

expected two-way interactions for person-specific empathy and ease-of-escape and general empathy and ease-of-escape provides no support for the hypothesis that empathy motivates allocentric as opposed to egocentric helping behaviour in children, although the means for the interaction between general empathy and ease-of-escape were in the expected directions.

Correlations Between Empathy and Helping

In order to supplement the preceding analyses examining the relationship between each of the two empathy measures and prosocial behaviour, two partial correlation coefficients were calculated ($N = 180$). It was expected that both measures of empathy would be related to prosocial behaviour but that the relationship between person-specific empathy and helping would be stronger than the relationship between general empathy and helping. First, it should be noted that, as expected, scores on person-specific empathy and general empathy were significantly correlated ($r = .36, p < .0005$). Therefore, a partial correlation was calculated between person-specific empathy and helping behaviour controlling for general empathy (i.e., total EC scores). Similarly, a partial correlation was calculated between general empathy and helping behaviour controlling for person-specific empathy. The calculation of these partial correlation coefficients insured that any positive associations found between each of the empathy measures and helping behaviour could not be explained by the influence of the second empathy measure. Contrary to expectations, the partial correlation coefficients were low and nonsignificant for both person-specific ($r = .08, p > .05$) and general empathy ($r = .04, p > .05$). Nor were significant zero-order correlations found for helping and either person-specific empathy ($r = .10, p > .05$) or general empathy ($r = .08, p > .05$).

Correlation Between General Empathy and Helping Without Lower 25% of EC Scores

It was noted by the experimenter that many of the children who scored low on the EC (i.e., had EC scores of less than 47 or in the bottom quartile) began consistently giving "no empathy" responses early on or midway through the interview. The experimenter thought that some of these children may have wanted to merely complete the study quickly and had realized that by giving "no empathy" responses, they could achieve this goal. Thus, these children's low EC scores may not necessarily reflect low empathy and as a result, they should not be expected to relate to helping behaviour. It is arguable that these low EC scores may have contributed to the absence of a significant correlation between general empathy and helping. In order to examine this possibility, the zero-order correlation of EC scores and helping behaviour was calculated after removing the lower 25% of EC scores ($N = 135$). A significant positive correlation was then found between general empathy and helping, $r = .24$, $p < .01$. This result offered partial support for the first hypothesis, in that one measure of empathy was found to be positively related to helping. However, the expectation that person-specific empathy and helping would be more highly related than general empathy and helping was not supported by the preceding analyses.

Discussion

The results of the present study provided mixed support for the original hypotheses. First, results pertaining to the effects of empathy on helping indicated, as predicted, that children's helping varied as a function of their general empathy. Children scoring high in general empathy offered significantly more help to the target person than children scoring low in general empathy. However, inconsistent with expectations, children's helping did not vary as a function of

their person-specific empathy. Contrary to the original prediction that the effect of person-specific empathy would be greater than the effect of general empathy on prosocial behaviour, the results of the present study suggested the opposite. In this study, the effects of general empathy were greater than the effects of person-specific empathy on helping. Second, results pertaining to the effects of escape condition on helping indicated that ease-of-escape influences children's helping. Children offered more help to the target person in the difficult- than in the easy-escape condition. However, no support was found for the hypothesis that either person-specific or general empathy facilitates allocentrically, rather than egocentrically, directed prosocial behaviour in children. Nevertheless, the pattern of means for the interaction between general empathy and ease-of-escape was in the predicted direction for this hypothesis: children in the easy-escape condition who scored low on general empathy helped less than high general empathy children in the easy-escape condition and high or low general empathy children in the difficult-escape condition.

Previous research examining the effects of empathy on prosocial behaviour in children has not provided clear support for the theoretical prediction that empathy motivates prosocial behaviour (Eisenberg & Miller, 1987; Underwood & Moore, 1982). Nevertheless, the theory persists. The results of the present study provide support for the general theory by indicating that children's helping varies as a function of their self-reported general empathy. One reason for the present positive results may pertain to the measure of general empathy that was employed.

The Empathy Continuum (EC) differs from other measures of empathy that have been found to be unrelated to children's prosocial behaviour, such as picture-story indices (e.g., FASTE, Feshbach & Roe, 1968), in terms of the evocative strength of the stimuli and the way in which empathy is scored (Strayer,

1987). While picture-story indices typically have involved presenting subjects with static pictures (i.e., slides accompanied by a narrative), the EC uses evocative and realistic videotaped stimuli. It is arguable that the videotaped stimuli employed in the EC are more likely to elicit empathy in children than the stimuli used in picture story indices because the former stimuli are more emotionally evocative than the latter. In addition, children's scores on the EC are partly determined by the degree of match between children's reports of their own emotions and their reports of the characters' emotions, in contrast to others' scoring based on the degree of match between children's reported emotion and the researcher's identification of the character's emotions. Thus, whereas the scoring of the EC allows for the subjectivity of affective experience, most picture story indices do not and, as a result, may obscure children's experiences of empathy. Also, the EC score reflects more than affect match. By including cognitive mediational factors along with affect match, a more precise measure of empathy may be possible (Hoffman, 1984).

The EC also differs from other self-report measures of empathy in that it assesses children's empathy to several emotionally evocative vignettes as opposed to only one or two vignettes. For example, Eisenberg and her colleagues have recently shown one or two emotionally evocative vignettes to children and then assessed children's self-reported emotions, as well as their facial and/or physiological responses (Eisenberg et al., 1989; Eisenberg et al., 1990; Eisenberg et al., 1988). Although these researchers have found relationships for children's prosocial behaviour with their facial expressions and physiological responses, children's self-reports of empathy have not been consistently associated with helping. It is not clear that the self-report measures employed in these cited studies are comparable indicators of children's empathy to those used in the present context. It also seems arguable that a self-report measure that assesses

children's empathy across several vignettes would be preferable as a more accurate or valid indicator of children's empathy.

Despite the advantages of employing the EC as a general measure of empathy, it was apparent that there were some problems with its administration in the present study. Consistent with previous concerns about overloading the "empathic system" as a result of showing numerous videotaped stimuli (Strayer, 1987), a number of the children scoring low on the EC began consistently giving "no empathy" responses to the EC vignettes early on or midway through the interview. As has already been suggested, rather than truly experiencing no empathy, some of these children may have merely wanted to complete the study at a faster rate and realized that by giving "no empathy" responses, they could achieve this goal. However, it is also possible that these children were not emotionally aroused. It may be helpful for future research to examine children's "no empathy" EC responses in greater detail.

An alternative explanation for the finding of a positive effect of general empathy on prosocial behaviour may concern social desirability. No measure of social desirability was administered in this study. Thus, it could be argued that children scoring high on the EC did so because they realized it was socially desirable to appear empathic. Similarly, these children may have also scored high on the helping index because they realized the social appropriateness of helping. However, this explanation seems unlikely given that previous research has shown that children's scores on the EC were unrelated to their scores on the Crandall, Crandall, & Katkovsky (1965) measure of social desirability (Chisholm, 1991; Cohen, 1991).

In contrast to the significant effects of general empathy on children's helping behaviour in this study, person-specific empathy had no effect. Although

this finding was unexpected in light of present reasoning concerning contextual factors in measuring both empathy and prosocial behaviour, it appears consistent with previous findings that empathy has a weak or non-existent effect on children's prosocial behaviour (Eisenberg & Miller, 1987; Underwood & Moore, 1982). More specifically, present results for person-specific empathy were consistent with a recent study by Eisenberg et al. (1990) examining the relation of vicarious emotional responding to person-specific prosocial behaviour. In their study, Eisenberg et al. (1990) found that children's self-reported empathy towards a boy and a girl who were bandaged and in casts in a hospital was unrelated to their helping, measured by the number of crayons placed into a box for the hospitalized children and the amount of time spent performing this activity. Even though these findings would appear to contradict theoretical predictions suggesting that a person is more likely to help another person if their empathic responding is activated towards that person (Hoffman, 1975), several explanations are considered.

One explanation pertains to the way in which person-specific empathy was measured. In both the present and previous studies, children's self-reported person-specific empathy was assessed by scoring subjects' responses to a very few questions about the stimulus videotape. However, a larger series of questions may be needed to obtain a valid estimate of children's person-specific empathy. Also, as previously suggested, a self-report measure that assesses children's empathy towards one vignette rather than across several videotaped vignettes may provide a less realistic index of children's empathy since everything depends on their responses to that one vignette. An improved procedure might combine the features of multiple sampling (present in the general EC scores) and focus on a specific target person. Thus, if researchers are interested in children's empathy towards one particular person (i.e., person-specific empathy), it may be necessary

to portray this person in many different vignettes and assess subjects' empathy across these vignettes.

An alternative explanation for the absence of effects for person-specific empathy on children's helping is also present in the literature. It has been argued that empathy induces or is associated with a negative mood state in children and that negative moods do not lead to prosocial actions in children (Cialdini, Kenrick, & Baumann, 1982). According to Cialdini's Negative State Relief model of helping (Cialdini, Darby, & Vincent, 1973), persons in a negative mood strive to make themselves feel better. Adults have learned by experience that engaging in a prosocial action will lead to the alleviation of negative affect. Thus, adults who are saddened by watching a person in distress have learned that by helping the distressed person, they will relieve their own sadness. Children, on the other hand, have not yet learned or been socialized to associate prosocial action with an enhanced affective state. Therefore, according to Cialdini, their negative state must be relieved in some other way than by helping.

Applied to the present study, this argument suggests that children who scored high on the person-specific measure of empathy were not any more likely to help the target person than children who scored low on this measure because they did not know that they could alleviate their negative mood by helping. In contrast to specific empathy, it can be argued that general empathy in the present study was less influenced by negative mood. Because the EC assesses children's empathy across a range of euphoric and dysphoric events, their negative state may have been mitigated by positive mood, as well.

The effects of ease-of-escape on helping observed in this study provided limited support for Batson's (1987) theory regarding empathy as a motivator of allocentric prosocial behaviour. Present results are consistent with Toi and Batson's (1982) reasoning about why people should be expected to help

more in a difficult- than easy-escape condition. Children in the difficult-escape condition helped more than children in the easy-escape condition, as is consistent with the proposed view that the personal costs of guilt and shame for not helping were relatively high in the difficult-escape condition and extremely low in the easy-escape condition. However, although the pattern of means for the interaction between general empathy and ease-of-escape was in the expected direction, the absence of the predicted interactions between empathy and ease-of-escape on children's helping is inconsistent with Batson's findings. That is, according to previous literature, adults in an easy-escape condition who score low on empathy help less than high empathy adults in an easy-escape condition and high or low empathy adults in a difficult-escape condition (Batson et al., 1988; Batson et al., 1983; Toi & Batson, 1982). Rather than concluding that the hypothesis holds for adults but not children, there are a number of differences to consider in the present study and Batson's previous work.

Factors contributing to findings by Batson and his colleagues that are different from the present study include: the use of sympathy versus empathy measures, a focus on dysphoric emotion only versus inclusion of euphoric with mostly dysphoric stimuli, and the distinction between sympathy and personal distress. As indicated earlier, Batson defines empathy (sympathy) as "other-oriented feelings of concern, compassion and tenderness experienced as a result of witnessing another person's suffering" (Batson et al., 1987, p. 181). Thus, Batson assesses empathy (actually sympathy) by asking subjects to rate how "sympathetic, moved, or compassionate" they feel after listening to a tape of a person in some need (e.g., Toi & Batson, 1982). In contrast, in the present study, empathy, in particular, was defined as involving the sharing of the perceived emotion (e.g., sadness, fear, happiness) of another. Empathy can be, and was,

assessed for euphoric as well as dysphoric emotions. Dysphoric empathy should be more likely than euphoric empathy to motivate allocentric prosocial behaviour because it is more likely to stimulate concern for another. It is arguable, therefore, that no support for the empathy-allocentrism hypothesis was found in this study because empathy, especially as measured by the EC, reflected children's euphoric as well as dysphoric affect.

In addition to measuring sympathy, Batson and his colleagues assess personal distress by asking subjects to rate how "alarmed, grieved, upset, disturbed" they feel after listening to a tape of a person in some need (e.g., Toi & Batson, 1982). Batson and his colleagues then create a single index of emotional response by subtracting each subject's score on the distress index from their score on the empathy (sympathy) index. Batson and his colleagues argue that a person's helping behaviour will be determined by their predominant emotional response. Specifically, adults who score low in empathy (i.e., high in personal distress) will display egocentrically motivated helping behaviour whereas adults who score high in empathy (i.e., low in personal distress) will display allocentrically motivated helping. Since it has been argued that either sympathy or personal distress can occur as an outcome to an initial empathic experience (Eisenberg & Strayer, 1987), it may be the case that, in the present study, children's high empathy scores reflected some elements of personal distress. Thus, the relationship between empathy and allocentrically motivated prosocial behaviour may have been obscured. However, this explanation seems unlikely given that recent studies suggest that even when children's self-reported sympathetic and personally distressed responses are differentiated, no relationship is found between empathy (sympathy) and prosocial behaviour (Eisenberg et al., 1989; Eisenberg et al., 1990; Eisenberg et al., 1988).

An alternative explanation for empathy's failure to interact with ease-of-

escape to affect children's helping is that Batson's hypothesis may not apply to children. That is, empathy may motivate egocentric, as opposed to allocentric, prosocial behaviour in children. If empathy motivates egocentric helping behaviour in children, children who are very empathic might only help other people in order to alleviate their feelings of guilt for not helping. Thus, in an easy-escape condition where guilt can be avoided, children who score high in empathy would not differ from children who score low in empathy. This line of reasoning is not entirely inconsistent with Batson's theory if it is argued that children eventually become socialized to engage in allocentrically directed prosocial behaviour as a result of its positive consequences for society.

A common theme in explaining differences between the results of this study and previous research has been that the self-report measures of empathy employed in this study differed from those used in other studies in many ways. While Eisenberg and her colleagues have set out to demonstrate the problems with self-report measures of empathy and how facial and/or physiological indices of empathy may provide a more accurate reflection of children's empathy than self-report measures (Eisenberg et al., 1989; Eisenberg et al., 1990; Eisenberg et al., 1988), it seems too premature to argue for the usefulness of one kind of measure over another as the best indicator of children's empathy.

The results of this study suggest that measures that assess children's general and person-specific emotional responsivity to a series of emotionally evocative vignettes may provide reasonable assessments of children's empathy and that these measures should be the focus of much attention in future research. Such multiple sampling techniques may allow researchers to come to a conclusion regarding the impact of empathy on prosocial behaviour when both empathy and the prosocial behaviour are measured in response to the same person as compared to being measured in different contexts. When person-specific empathy is

assessed across many euphoric and dysphoric vignettes, as general empathy was measured in this study, it will be difficult to explain any observed relationship between empathy and prosocial behaviour in terms of negative mood state. Rather, such results would provide strong support for theoretical predictions regarding the the impact of empathy on prosocial behaviour.

In addition, future research needs to continue to examine whether empathy motivates allocentric or egocentric prosocial behaviour in children. Despite the fact that the present study has provided very little evidence for the empathy-allocentrism hypothesis, more research needs to be conducted before any firm conclusions can be drawn. Batson's ease-of-escape paradigm appears to provide a useful method for distinguishing between allocentrically and egocentrically motivated prosocial behaviour in children. However, this experimental manipulation may be more successful when accompanied by self-reports of empathy that accurately distinguish between children's sympathetic and personally distressed responses.

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Table 1
Predictions of Amount of Children's Helping When Ease-of-Escape is Varied and High vs. Low Person-Specific Empathy is Measured

Difficulty of escape	Level of Person-Specific Empathy (Type of Motivation)	
	Low Empathy (Egocentric)	High Empathy (Allocentric)
Easy	Low	High
Difficult	High	High

Table 2
Predictions of Amount of Children's Helping When Ease-of-Escape is Varied and High vs. Low General Empathy is Measured

Difficulty of escape	Level of General Empathy (Type of Motivation)	
	Low Empathy (Egocentric)	High Empathy (Alloentric)
Easy	Low	High
Difficult	High	High

Table 3
Means, Standard Deviations, and Ranges of Children's Scores on Each of the Seven EC Vignettes and the Person-Specific Vignette

Vignette	<u>M</u>	<u>SD</u>	<u>Range</u>
Old House	5.12	4.10	0-19
Spilled Milk	7.83	4.28	0-19
Jeannie	8.85	3.36	0-19
Skates - Part A	7.83	3.72	1-19
Skates - Part B	7.88	4.21	1-18
Canes	8.34	5.19	0-19
Circus	10.44	4.39	1-19
Person-Specific	8.94	3.92	0-19

Table 4

Results of Four-Way ANOVA: 2 (high vs. low person-specific empathy) x 2 (high vs. low EC empathy) x 2 (easy vs. difficult escape) x 2 (order of presentation of vignettes)

Source	DF	F	Prob
EC	1	5.50	0.0206*
Person-Specific Empathy	1	0.09	0.7621
Escape	1	8.13	0.0051*
Order	1	1.63	0.2046
EC x Person-Specific Empathy	1	0.27	0.6042
EC x Escape	1	0.44	0.5078
Person-Specific Empathy x Escape	1	0.29	0.5918
EC x Order	1	0.00	0.9497
Person-Specific Empathy x Order	1	0.01	0.9293
Escape x Order	1	0.64	0.4235
EC x Person-Specific Empathy x Escape	1	0.01	0.9406
EC x Person-Specific Empathy x Order	1	0.01	0.9395
EC x Order x Escape	1	0.21	0.6472
Person-Specific Empathy x Escape x Order	1	1.62	0.2056
EC x Person-Specific Empathy x Escape x Order	1	0.05	0.8253

* statistically significant

Table 5

Results of Three-Way ANOVA: 2 (high vs. low person-specific empathy) x 2 (high vs. low EC empathy) x 2 (easy vs. difficult escape) ANOVA

Source	DF	F	Prob
EC	1	7.05	0.0089*
Person-Specific Empathy	1	0.02	0.8943
Escape	1	10.14	0.0018*
EC x Person-Specific Empathy	1	0.95	0.3309
EC x Escape	1	0.02	0.8908
Person-Specific Empathy x Escape	1	0.29	0.5918
EC x Person-Specific Empathy x Escape	1	0.01	0.9406

* statistically significant

Table 6

The Means and Standard Deviations of Children's Helping for the Person-Specific Empathy x Ease-of-Escape Interaction, Collapsing Across General Empathy

Difficulty of escape	Level of Person-Specific Empathy (Type of Motivation)	
	Low Empathy (Egocentric)	High Empathy (Allothetic)
Easy	<u>M</u> = 60.26 <u>SD</u> = 84.58 <u>n</u> = 38	<u>M</u> = 72.86 <u>SD</u> = 81.51 <u>n</u> = 35
Difficult	<u>M</u> = 106.06 <u>SD</u> = 94.47 <u>n</u> = 33	<u>M</u> = 129.5 <u>SD</u> = 93.74 <u>n</u> = 35

Table 7

The Means and Standard Deviations of Children's Helping for the General Empathy x Ease-of-Escape Interaction, Collapsing Across Person-Specific Empathy

Difficulty of escape	Level of General Empathy (Type of Motivation)	
	Low Empathy (Egocentric)	High Empathy (Alloentric)
Easy	<u>M</u> = 45.13 <u>SD</u> = 88.82 <u>n</u> = 37	<u>M</u> = 88.05 <u>SD</u> = 90.93 <u>n</u> = 36
Difficult	<u>M</u> = 98.10 <u>SD</u> = 88.09 <u>n</u> = 37	<u>M</u> = 140.27 <u>SD</u> = 97.37 <u>n</u> = 36

Appendix A

Simon Fraser University Information Sheet for Parents

Study of Empathy in Children

Dear Parent:

My name is Jennifer Poole and I am a graduate student in psychology at Simon Fraser University. For my Master's thesis, I am investigating empathy in children, that is, how children understand and respond to characteristic situations that make people feel happy or sad, for example. If your daughter is 9, 10, or 11 years old, I would like to invite her to participate in this study, supervised by Dr. Janet Strayer of Simon Fraser University. Your child's involvement in the study will be greatly appreciated.

The procedures to be used are fairly simple. Children will be shown a series of short videotapes, and they will be interviewed regarding their recall and interpretation of events and characters in the videotapes. Each child will be seen individually and the whole procedure will take approximately 45 minutes.

Care will be taken to ensure that the activities are in no way upsetting to participants or disrespectful of the rights of any persons involved. Participants will, of course, be able to withdraw from this study at any time.

The information gathered in the study concerning your child will remain anonymous and confidential. A summary of the findings of the study will be made available to participants. However, this summary and all subsequent reports of this research will not identify any subject by name.

If your child would like to participate in this study, please complete the attached form and return it to the school in the next few days.

If you have any questions, feel free to contact me at 734-2433. Thank you. I trust the study will be both enjoyable and interesting for your child.

Sincerely yours,
Jennifer Poole

Simon Fraser University
Consent Form for Parents and Children

The university and researcher conducting the empathy project subscribe to the ethical conduct of research and to the protection at all times of the interests, comfort, and safety of subjects. This form and the information contained are given to you to ensure your full understanding of the procedures, risks and benefits involved. Your signature on this form will indicate that you have read the information regarding this project, that you have been given the opportunity to consider the information provided, and that you voluntarily agree to allow your child to participate in the project.

As parent/guardian (print your name) _____ I consent to the participation of my child (print her name) _____ in the project described in "Study of Empathy in Children".

I understand the procedures to be used and have fully explained them to my daughter. In particular, there are no risks involved in taking part, and participants have the right to withdraw from the project at any time. Any complaint about the study may be brought to the project researcher or to Dr. Roger Blackman, Chairman, Psychology Department, Simon Fraser University.

_____ Parent's Signature

_____ Child's Signature

_____ Address

_____ Telephone

Appendix B

Description of the Televised EC Stimuli

Old House (from commercially produced film)

Three children sneak into a fenced-in yard at night. A boy climbs up creaking stairs to peer through a window into the house. A looming shadow of a man appears above him, and the children run away.

Spilled Milk (from *Twelve and a Half Cents*, National Film Board of Canada)

A husband and wife have an angry exchange while their daughter is watching T.V. in the background. The man slams the door as he leaves; the woman shouts at the girl to come to dinner; the girl accidentally knocks over a glass of milk and the mother slaps her.

Jeannie (from *Loved, Honoured, and Bruised*, National Film Board of Canada)

A young woman is shown talking directly to the viewer about the difficult life she and her children had on an isolated farm with her abusive husband.

Skates - Part A (from a commercially produced film, film segments obtained from Dorothy Flapan, who used them in a 1968 study)

A girl and boy argue over taking turns on her new skates. The boy calls her names and threatens to tattle. She pushes him down and he runs crying to the girl's mother. The father is called in to pursue the issue. The boy lies, and the father believes his story. The girl defiantly maintains her story, is punished, and her skates given away to the boy. The girl is shown crying.

Skates - Part B

The girl is now up in her room. She calls down to her father and asks him if he can come and give her a kiss goodnight. He says "No" and tells her to go back to bed. The father goes out to the kitchen where his wife tells him about a circus that is coming to town the next day.

Canes (from I'll Find a Way, National Film board of Canada)

A girl introduces herself to viewers and talks pleasantly about her life and fun, despite her physical disability. She is then shown practising walking up and down stairs with canes, while joking with the adult physiotherapist.

Circus (from a commercially produced film, film segments obtained from Dorothy Flapan, who used them in a 1968 study)

A father and daughter go to see the circus train on stopover one night. The elephant is let out to perform some tricks. The girl jumps and laughs excitedly, and is lifted up on the elephant's trunk.

Appendix C

Empathy Continuum Protocol

A) Old House

1. Pretend I didn't see this story and tell me what happened.
2. How did you feel while you were watching that story?
 - a) if the subject says "bad", "upset", "concerned/worried" or gives a vague reply, say "tell me more about _____."
 - b) if the subject says "surprised" or "excited", say "is that good _____ or bad _____."
 - c) if the subject does not name an emotion or the response is still vague, go to the emotion list below. Do not query neutral responses (i.e., "ok", "fine")

Happy	Afraid
Surprised	Sad
Angry	Nothing
3. Did you feel that a lot (= 2) or a little (= 1)?
4. What made you feel that?
5. In this story, how do you think the boy felt? (Follow same guidelines as given in question 2.)
6. Did he feel that a lot (= 2) or a little (= 1)?
7. What made him feel that?

B) Spilled Milk

1. Pretend I didn't see this story and tell me what happened.
2. How did you feel while you were watching that story?

a) if the subject says "bad", "upset", "concerned/worried" or gives a vague reply, say "tell me more about _____."

b) if the subject says "surprised" or "excited", say "is that good _____ or bad _____."

c) if the subject does not name an emotion or the response is still vague, go to the emotion list below. Do not query neutral responses (i.e., "ok", "fine")

Happy

Afraid

Surprised

Sad

Angry

Nothing

3. Did you feel that a lot (= 2) or a little (= 1)?

4. What made you feel that?

5. In this story, how do you think the girl felt? (Follow same guidelines as given in question 2.)

6. Did she feel that a lot (= 2) or a little (= 1)?

7. What made her feel that?

8. In this story, how do you think the mother felt? (Follow same guidelines as given in question 2.)

9. Did she feel that a lot (= 2) or a little (= 1)?

10. What made her feel that?

C) Jeannie

1. Pretend I didn't see this story and tell me what happened.

2. How did you feel while you were watching that story?

a) if the subject says "bad", "upset", "concerned/worried" or gives a vague reply, say "tell me more about _____."

b) if the subject says "surprised" or "excited", say "is that good _____ or bad _____"

_____."

c) if the subject does not name an emotion or the response is still vague, go to the emotion list below. Do not query neutral responses (i.e., "ok", "fine")

Happy	Afraid
Surprised	Sad
Angry	Nothing

3. Did you feel that a lot (= 2) or a little (= 1)?

4. What made you feel that?

5. In this story, how do you think the woman felt? (Follow same guidelines as given in question 2.)

6. Did she feel that a lot (= 2) or a little (= 1)?

7. What made her feel that?

D) Skates

1. Pretend I didn't see this story and tell me what happened.

2. How did you feel while you were watching that story?

a) if the subject says "bad", "upset", "concerned/worried" or gives a vague reply, say "tell me more about _____."

b) if the subject says "surprised" or "excited", say "is that good _____ or bad _____."

c) if the subject does not name an emotion or the response is still vague, go to the emotion list below. Do not query neutral responses (i.e., "ok", "fine")

Happy	Afraid
Surprised	Sad
Angry	Nothing

3. Did you feel that a lot (= 2) or a little (= 1)?

4. What made you feel that?

5. In this story, how do you think the girl felt? (Follow same guidelines as given in question 2.)
6. Did she feel that a lot (= 2) or a little (= 1)?
7. What made her feel that?
8. In this story, how do you think the boy felt? (Follow same guidelines as given in question 2.)
9. Did he feel that a lot (= 2) or a little (= 1)?
10. What made him feel that?
11. In this story, how do you think the father felt? (Follow same guidelines as given in question 2.)
12. Did he feel that a lot (= 2) or a little (= 1)?
13. What made him feel that?

E) Canes

1. Pretend I didn't see this story and tell me what happened.
2. How did you feel while you were watching that story?
 - a) if the subject says "bad", "upset", "concerned/worried" or gives a vague reply, say "tell me more about _____."
 - b) if the subject says "surprised" or "excited", say "is that good _____ or bad _____."
 - c) if the subject does not name an emotion or the response is still vague, go to the emotion list below. Do not query neutral responses (i.e., "ok", "fine")

Happy	Afraid
Surprised	Sad
Angry	Nothing
3. Did you feel that a lot (= 2) or a little (= 1)?

4. What made you feel that?
5. In this story, how do you think the girl felt? (Follow same guidelines as given in question 2.)
6. Did she feel that a lot (= 2) or a little (= 1)?
7. What made her feel that?

E) Circus

1. Pretend I didn't see this story and tell me what happened.
2. How did you feel while you were watching that story?
 - a) if the subject says "bad", "upset", "concerned/worried" or gives a vague reply, say "tell me more about _____."
 - b) if the subject says "surprised" or "excited", say "is that good _____ or bad _____."
 - c) if the subject does not name an emotion or the response is still vague, go to the emotion list below. Do not query neutral responses (i.e., "ok", "fine")

Happy	Afraid
Surprised	Sad
Angry	Nothing
3. Did you feel that a lot (= 2) or a little (= 1)?
4. What made you feel that?
5. In this story, how do you think the girl felt? (Follow same guidelines as given in question 2.)
6. Did she feel that a lot (= 2) or a little (= 1)?
7. What made her feel that?

Appendix D

Person-Specific Empathy Protocol

1. Pretend I didn't see this story and tell me what happened.
2. How did you feel while you were watching that story?
 - a) if the subject says "bad", "upset", "concerned/worried" or gives a vague reply, say "tell me more about _____."
 - b) if the subject says "surprised" or "excited", say "is that good _____ or bad _____."
 - c) if the subject does not name an emotion or the response is still vague, go to the emotion list below. Do not query neutral responses (i.e., "ok", "fine")

Happy	Afraid
Surprised	Sad
Angry	Nothing
3. Did you feel that a lot (= 2) or a little (= 1)?
4. What made you feel that?
5. In this story, how do you think the girl felt? (Follow same guidelines as given in question 2.)
6. Did she feel that a lot (= 2) or a little (= 1)?
7. What made her feel that?

Appendix E

The Empathy Continuum (EC) Scoring System (Strayer, 1989)

<u>EC Score</u>	<u>EC Level (Cognitive Mediation)</u>	<u>Affect-Match</u>	<u>Description</u>
0		0	No emotion reported for character
1	I	0	Accurate emotion reported for character but no (or discordant) emotion for self
2	II	1	Similar emotion in self and character
3		2	Same emotion, different intensity
4			Same emotion, same intensity

NO ATTRIBUTION OR IRRELEVANT REASONS ARE PROVIDED FOR ONE'S EMOTION: "I just didn't like it."

5	III	1	Similar emotion
6		2	Same emotion, different intensity
7		3	Same emotion, same intensity

ATTRIBUTION BASED ON STORY EVENTS/SITUATION: "I felt scared of that creepy old house."

8,9,10	IV	1,2,3	As above
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ATTRIBUTION REFERS TO A SPECIFIC CHARACTER'S SITUATION: "I feel scared when he went up to that old house."

11,12,13 V 1,2,3 As above

ATTRIBUTION INDICATES TRANSPOSITION OF SELF INTO SITUATION AND/OR ASSOCIATION TO ONE'S OWN EXPERIENCES: "Well, I'm scared but curious, like him, about stuff like that."

14,15,16 VI 1,2,3 As above

ATTRIBUTION INDICATES RESPONSIVENESS TO CHARACTER'S FEELINGS, INTERNAL STATE OR "LOT IN LIFE": "I felt sad because she felt so put down,"; "...because she had to struggle with her handicap."

17,18,19 VII 1,2,3 As above

ATTRIBUTION INDICATES SEMANTICALLY EXPLICIT ROLE TAKING: "If I were in her place, ...I'd be angry at him for treating me like that."

Appendix F

Helping Questionnaire

Name _____

I would be willing to help Mary for:

- one week
- two weeks
- three weeks
- four weeks
- five weeks

Each week, I would be willing to help Mary for:

- 10 minutes
- 20 minutes
- 30 minutes
- 40 minutes
- 50 minutes
- 60 minutes