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Empathy-related Responding: Associations with Prosocial Behavior, Aggression, and Intergroup Relations

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Abstract

Empathy-related responding, including empathy, sympathy, and personal distress, has been implicated in conceptual models and theories about prosocial behavior and altruism, aggression and antisocial behavior, and intergroup relationships. Conceptual arguments and empirical findings related to each of these topics are reviewed. In general, there is evidence that empathy and/or sympathy are important correlates of, and likely contributors to, other-oriented prosocial behavior, the inhibition of aggression and antisocial behavior, and the quality of intergroup relationships. Applied implications of these findings, including preventative studies, are discussed, as are possible future directions.

Keywords

Empathy; sympathy; aggression; externalizing problems; prosocial behavior; psychopathy; altruism; intergroup relations

In August, 2010, charities were attempting to raise funds to help victims of devastating floods in Pakistan. Agrell (2010) reported that one week after launching a fundraising effort to help these victims, a coalition of Canadian charities has raised merely \$200,000. In contrast, a week after they initiated a similar campaign following the Haitian earthquake in January, 2010, more than \$3.5 million had been raised. Elizabeth Byrs, a spokeswoman for the UN Office for the Co-ordination of Humanitarian Affairs, suggested that the lack of contributions was due to "an image deficit with regards to Pakistan among Western public opinion." Representatives of Canada's humanitarian network say there are many interconnected issues at play, including culture and language. Specifically, they speculated that the lack of generosity is partly because Pakistan is more time zones away from Canada, affecting the flow of information out of the country, and does not share a common language with Canada, as does Haiti. In additional factor, they argued, is that Pakistan is associated with the war in that part of the world. In short, people with experience in fundraising for disasters suggested that the flow of donations was lower for the Pakistani than the Haitian disaster because the country was further away, the people were less similar to Canadians on some dimensions, and the Pakistanis were associated with an enemy. Although the article

did not mention prejudice against Muslims as a factor, it was clear from the comments on the internet in response to the article that many readers had negative perceptions of Pakistanis. Typical comments were as follows: “Gee, if the gov’t of Pakistan wasn’t turning a blind eye to the Taliban in their midst there might be more sympathy for their plight,” “Maybe those Pakistanis who helped to inflict suffering on other people should realize they shouldn’t expect help,” and “Being an infidel according to the Muslims of Pakistan, I would be foolish to donate.” Some people commented that the government would be foolish to assist the Pakistanis.

This discussion highlights the potential role of empathy and sympathy in social policy, as well as in everyday human interactions. Empathy and related responses have been tied to morality and quality of social interactions for many years, in both philosophy (Blum, 1980; Hume, 1777/1966) and psychology (e.g., Feshbach & Feshbach, 1982; Hoffman, 1975). It is commonly believed that humans’ (and some animals’; see de Waal, 2008) abilities to encode and experience others’ emotional states affect their perceptions of, and behavior toward, them. Although, as we discuss shortly, such an assumption has some validity, relations of empathy-related responding to social and moral cognitions and behavior vary as a function of the nature of the vicarious response.

In this review, we discuss distinctions among various empathy-related responses and how they relate to individuals’ positive behaviors and interactions with others, their aggression and other antisocial/externalizing behaviors, and discrimination and prejudice. We focus on these topics because empathy-related responding is believed to influence whether or not, as well as whom, individuals help or hurt. For example, empathy-related processes likely at least partly account for variations in helping others who are similar versus different than the self in characteristics such as race and nationality (see Batson, Chang, Orr, & Rowland, 2002; Stephan & Finlay, 1999). Thus, empathy is of relevance to policies that depend on good- rather than ill-will toward others and humanitarian motivation. Such policies would include not only those related to the provision of concrete aid to needy individuals, but also to the support of policies pertaining to taxation, education, health, and so forth that affect the well-being of other people. Moreover, an understanding of empathy-related processes would seem to be relevant to efforts to reduce antisocial behavior that harms other individuals, especially offenses involving individuals as victims.

Conceptual Distinctions among Empathy-Related Responses

Empathy has been defined in diverse ways over the years and across disciplines and subdisciplines. In general, definitions include the ability to understand others’ emotions and/or perspectives and, often, to resonate with others’ emotional states. Building on the work of Hoffman (2000) and Batson (1991), Eisenberg and colleagues (e.g., Eisenberg, Fabes, & Spinrad, 2006; Eisenberg, Shea, Carlo, & Knight, 1991) have defined empathy as an affective response that is identical, or very similar, to what the other person is feeling or might be expected to feel given the context—a response stemming from an understanding of another’s emotional state or condition. For example, if a girl views a sad boy, realizes that he is sad, and consequently feels sad herself, she is experiencing empathy. Thus, consistent with many current definitions in social and developmental psychology, an emotional response is a central component of empathy; however, empathy is more than mere contagion of affect without understanding the source of the vicariously induced emotion. The person empathizing must realize that the emotion he or she is responding to is another’s emotion. Of course, especially in young children, the understanding of another’s emotion or state that underlies empathy may be fairly rudimentary.

We have argued that after the first year or so of life, if the empathic feeling is not so weak that it is fleeting, it often evokes other emotional responses—specifically sympathy or personal distress. We define sympathy as an affective response that often stems from empathy, but can derive solely (or partly) from perspective taking or other cognitive processing, including the retrieval of relevant information from memory. Sympathy, like empathy, involves an understanding of another's emotion and includes an emotional response, but it consists of feelings of sorrow or concern for the distressed or needy other rather than merely feeling the same emotion the other person is experiencing or is expected to experience. Thus, the girl who viewed the sad boy might first experience empathic sadness, and then feel sympathetic concern for the boy. Our definition of sympathy is similar to what Batson (1991) and Hoffman (2000) have labeled empathy. Note that the term *cognitive empathy* is typically used to refer to the ability to understand others' emotions and/or perspectives—not to feeling others' emotions or feeling concern—in recent discussion in social and developmental psychology.

Batson (see Batson, 1991) was perhaps the first to use the term personal distress to refer to a third empathy-related response. Consistent with his definition, we view *personal distress* as often stemming from exposure to another's state or condition, although we believe it can also be evoked by cognitions relevant to another's situation or cognitive perspective taking without necessarily experiencing empathy. Personal distress is defined as a self-focused, aversive emotional reaction to the vicarious experiencing of another's emotion (e.g., discomfort or anxiety, Eisenberg, Shea, et al., 1991). Thus, if another's sadness makes a viewer uncomfortable or anxious, the observer is experiencing personal distress. Batson argued that personal distress is associated with the egoistic motivation of making one's self, not necessarily the other person, feel better. Thus, the social and moral concomitants of sympathy and personal distress would be expected to differ considerably.

In this review, we examined the relations of empathy-related responding to prosocial behavior, aggressive and antisocial behavior, and the quality of intergroup relationships. Our review of theory and empirical findings is, by necessity, illustrative rather than exhaustive. In addition, applied implications and interventions or prevention programs are discussed.

Relations of Empathy-Related Responding to Prosocial Behavior

Prosocial behavior usually is defined as voluntary behavior intended to benefit another (Eisenberg, 1986). It is a superordinate category that includes different kinds of behaviors, for example, helping, sharing, and comforting, as well as behaviors enacted for diverse reasons. Prosocial behavior can be motivated by a host of factors, including egoistic concerns (e.g., the desire for reciprocity, a concrete reward, or social approval, or the desire to alleviate one's own aversive emotional arousal), practical concerns (e.g., the desire to prevent waste of goods), other-oriented concern (e.g., sympathy), or moral values (e.g., the desire to uphold internalized moral values such as those related to the worth or equality of all people or a responsibility for others). *Altruistic behaviors*—a subtype of prosocial behavior—often are defined as prosocial behaviors motivated by other-oriented or moral concerns/emotion rather than egoistic or pragmatic concerns (Eisenberg, 1986).

Numerous theorists and researchers have suggested that empathy and sympathetic concern (early writers often did not differentiate the two) often motivate altruism (e.g., Batson, 1991; Eisenberg, 1986; Hoffman, 1975). For example, Batson (1991) argued that sympathy is associated with the desire to reduce another's distress or need and therefore is likely to result in altruistic behavior. As already noted, Batson further proposed that personal distress, because it is an aversive feeling, is associated with the egoistic desire to reduce one's own distress. Often people may reduce feelings of personal distress by avoiding contact with the

needy or distressed other if it is possible to do so without too great a cost (e.g., strong social disapproval). Batson argued that individuals who experience personal distress would be expected to assist others only when that is the easiest way to reduce the helper's own distress.

Researchers have examined the relations of prosocial behaviors to both situational empathy-related responding (empathy in a specific context directed at a specific individual or individuals) and dispositional (trait-like) measures of empathy-related reactions. In general, there appears to be a positive relation between empathy-related responding, especially sympathy, and prosocial behaviors, particularly those likely to be relatively altruistically motivated. In regard to situational empathy-related responding (i.e., empathy as elicited in specific contexts), numerous investigators have examined self-reported situational sympathy and personal distress, and a more limited number have also assessed facial and physiological responses to empathy-inducing stimuli (see Batson, 1998; Batson, Eklund, Chermok, Hoyt, & Ortiz, 2007; Eisenberg & Fabes, 1990; Eisenberg et al., 2006; Eisenberg & Miller, 1987). For example, Batson (see Batson, 1991, 1998) conducted a series of studies with adults demonstrating a relation between helping (or being willing to help) and either reported feelings of sympathy (labeled "empathy" by Batson) or being in an experimental group induced to experience sympathy (e.g., through perspective taking), typically in contexts where the possibility of social approval/censure or rewards was minimal and the potential helper could avoid contact with the needy/distressed other. In contrast, individuals who appeared to experience personal distress were less likely to assist in these circumstances. However, in some studies, self-reported measures of situational personal distress were positively related to helping (see Batson, 1991; Batson et al., 1988). Batson noted that when reporting on their own vicarious reactions, people often may have some difficulty differentiating distress for another from self-focused personal distress (also see Van Lange, 2008).

In studies of children's situational empathy-related responding, children typically have been exposed to either someone feigning distress (e.g., Fabes, Eisenberg, Karbon, Troyer, & Switzer, 1994; Knafo, Zahn-Waxler, Van Hulle, Robinson, & Rhee, 2008; Zahn-Waxler, Radke-Yarrow, Wagner, & Chapman, 1992) or a film/video depicting supposedly real empathy-inducing events and people (e.g., Eisenberg et al., 1989; see Eisenberg & Fabes, 1990). Children's facial and/or behavioral reactions sometimes are observed, and in the latter type of study, self-reported and physiological reactions sometimes also are obtained. In general, researchers have found that children as young as 1- to 2-years old, as well as preschoolers and school-aged children, sometimes exhibit empathy or sympathy when viewing someone else in distress or need and such displays tend to be associated with attempts to understand another's distress and assist (Hastings, Zahn-Waxler, Robinson, Usher, & Bridges, 2000; Knafo et al., 2008; Vaish, Carpenter, & Tomasello, 2009; Volling, 2001; Young, Fox, & Zahn-Waxler, 1999; Zahn-Waxler et al., 1992).. When older preschoolers and school-age children have viewed filmed clips about other children in distress or need, those who have exhibited more facial concern (or sometimes sadness) and greater heart rate deceleration (likely indicative of an external focus and taking in information) during relatively evocative portions of the film have tended to be more willing to assist the other children (or children similar to them). In contrast, children who have exhibited facial distress (especially boys) and higher skin conductance during the most evocative portions--believed to be a marker of personal distress--have been least likely to help or share. In addition, after early childhood, children's reports of experiencing sympathy and/or low levels of happiness during the film(s) tend to predict prosocial behavior, although often not as well as facial or physiological measures of responding (e.g., Eisenberg et al., 1989, 1990; Trommsdorff & Friedlmeier, 1999; Trommsdorff, Friedlmeier, & Mayer, 2007;

see Eisenberg & Fabes, 1990, and Eisenberg et al., 2006; Zahn-Waxler, Cole, Welsh, & Fox, 1995;).

Even more studies have been conducted examining the association between dispositional measures of empathy-related responding and various indices of prosocial behavior or intentions (see Batson, 1998; Davis, 1994; Eisenberg et al., 2006). Dispositional measures of empathy (e.g., Albiero & Lo Coco, 2001; Eisenberg, Miller, Shell, McNalley, & Shea, 1991; Eisenberg et al., 1987) and/or sympathy—usually self-reports or reports of others on questionnaires—also frequently have been positively related to children's and adults' prosocial behavior (e.g., Batson, 1991; Eisenberg, Carlo, Murphy, & Van Court, 1995; Eisenberg, Miller, et al., 1991; Eisenberg, Zhou, & Koller, 2001; Estrada, 1995; Malti, Gummerum, Keller, & Buchmann, 2009; see Davis, 1994, and Eisenberg et al., 2006), although relations are sometimes weak or inconsistent (e.g., Roberts & Strayer, 1996; Strayer & Roberts, 2004). Not surprisingly, this association is more consistent for prosocial behaviors that appear to be other-oriented. For example, relations between dispositional measures of empathy or sympathy and prosocial behavior are more consistent for relatively costly prosocial behaviors and those that are private rather than public (Carlo & Randall, 2002; Hausmann, Christiansen, & Randall, 2003; Eisenberg, Miller, et al., 1991; Eisenberg et al., 1987, 1999, 2002), although findings for self-reported empathy are not as consistent as for self-reported sympathy (Eisenberg, Miller, et al., 1991; Larrieu & Mussen, 1986; Strayer & Roberts, 1989).

Situational and dispositional measures of personal distress, both of which tend to be self-reported, have been less consistently related with prosocial behavior than sympathy. Trommsdorff et al. (2007) reported negative relations between observed self-focused distress and children's prosocial behavior in 3 of 4 cultures, but not for other-oriented distress (i.e., distress when looking at the other person). As previously noted, among adults, Batson (1991) found some evidence that situationally induced personal distress was negatively related to prosocial actions and intentions, although reports of personal distress were not consistently negatively related to helping. Moreover, self-reported personal distress on questionnaires tends not to be related to children's or adolescents' prosocial behavior (e.g., Eisenberg, Miller, et al., 1991; Eisenberg et al., 1995; Litvack-Miller, McDougall, & Romney, 1997; cf. Estrada, 1995) and relations of personal distress with prosocial behavior vary with the type of prosocial behavior and age (Carlo et al., 2003; Eisenberg et al., 2002; Eisenberg, McCreath, & Ahn, 1988).

In summary, although the findings vary somewhat depending on the measure of empathy-related responding or prosocial behavior, in general both situational and dispositional sympathy (and sometimes empathy) tend to be positively related to a number of types of prosocial behavior. Situationally induced personal distress, assessed with physiological, facial, and sometimes self-reports, tends to be negatively or unrelated to prosocial behaviors, especially those likely to be altruistic. The patterns of findings generally appear to be more consistent with theoretical expectations for types of prosocial behaviors that are costly and likely to be altruistically motivated. In contrast, findings on the relation of personal distress to prosocial behavior are more mixed.

Implications: Interventions for Prosocial Behavior

The findings just reviewed suggest that empathy-related responding, especially sympathy, is related to individual differences in prosocial behavior. Moreover, some of the work, especially that of Batson (1991), suggests that inducing sympathetic concern is likely to foster helping. Thus, it has often been assumed that disciplinary practices and interventions that foster sympathy (and perhaps empathy) will enhance people's tendencies to assist others.

There are, to our knowledge, few articles or books in English that report on intervention programs designed to foster empathy and/or sympathy as a means of fostering other-oriented prosocial behavior. A number of intervention programs have been designed to enhance children's prosocial responding (rather than their empathy/sympathy); they typically have included a variety of procedures, some of which likely foster empathy and sympathy.

In an early attempt at such an intervention, Feshbach and Feshbach (1982) implemented The Empathy Training Program, which was designed to enhance children's empathy-related skills as a means for reducing aggression and fostering prosocial tendencies. This school-based intervention program was used with typical school children in grades 3 to 5, with three 20- to 30-minute sessions per week for 10 weeks. Activities included procedures designed to assist children in identifying emotions, discriminating emotions in oneself and others, and developing the ability to take the perspective of another (e.g., by role playing each character in a short story). Procedures that help children identify and understand others' emotions were expected to promote empathy and sympathy. Problem-solving activities similar to the ones in the intervention group, but without the empathic component, were administered to the control group.

Feshbach and Feshbach found that students in both the intervention and control groups exhibited significant decreases on ratings of aggression (the special attention provided to both groups may have had an effect on aggression). However, only those in the intervention group showed improvements in prosocial behaviors such as cooperation, helping, and generosity (Feshbach, 1979; Feshbach & Feshbach, 1982). Although they did not directly report if they found changes in empathy, Feshbach and Feshbach's findings suggest that the intervention may have enhanced children's empathy and/or sympathy.

The Child Development Project (CDP; see Battistich, Watson, Solomon, Schaps, & Solomon, 1991; Solomon, Battistich, Watson, Schaps, & Lewis, 2000; Solomon, Watson, Delucchi, Schaps, & Battistich, 1988)—an intervention specifically designed to foster prosocial behavior in schools-- included some parent involvement and school-wide elements, but the primary component of the intervention in its initial form involved teacher education. Teachers were trained to maintain positive personal relationships with their students by using a child-centered approach to classroom management and discipline that incorporated inductive discipline (i.e., reasoning) and student participation in rule-setting. They were taught to use disciplinary encounters (as well as the occurrence of prosocial behaviors) as opportunities for encouraging perspective taking. Other aspects of the program were designed to promote social understanding, highlight prosocial values (e.g., concern and respect for others, social responsibility), and provide helping activities. Teachers were trained how to create classrooms conducive to collaborative goal attainment and to discuss others' experiences to enhance children's understanding of others' needs, feelings, and perspectives. Teachers also helped students to develop social skills such as how to provide help to and receive help from peers. A number of the aforementioned activities and modes of discipline would be expected to foster empathy and/or sympathy (see Eisenberg et al., 2006).

Across five consecutive years of implementation (kindergarten through fourth grade), students in the intervention classrooms, compared with control classes, generally scored higher on ratings of prosocial behavior, even when both teachers' general competence and students' participation in cooperative activities were statistically controlled, suggesting that program effects on children's prosocial behavior were not due simply to differences in teacher-initiated cooperative interactions or to more efficiently organized and managed classrooms (Solomon et al., 1988). The program effects on prosocial behavior and cooperation appeared to be strongest in kindergarten, when first introduced. The degree to

which intervention effects generalized beyond the immediate classroom environment was unclear (Battistich et al., 1991).

The program in its initial form had little effect on the frequency of some forms of negative interpersonal behavior, but it was associated with increases not only in prosocial behavior, but also conflict resolution skills and level of moral reasoning about helping among students in elementary grades (Solomon, Battistich, & Watson, 1993). However, effects upon caring for others and empathy were not always noted (Benninga et al., 1991), although the effects of the intervention on prosocial behavior suggest that sympathy may have been enhanced by the procedures.

More recently, the CDP was implemented in six school districts over a 3-year period, with two additional schools in each district serving as a control group (Battistich, Schaps, Watson, Solomon, & Lewis, 2000; Solomon et al., 2000). For those schools that had significant success in implementing the program, students showed gains in social and ethical values, attitudes, and motives, as well as a reduction of substance abuse and other problem behaviors.

Over time, the idea of the school as a caring community became an essential part of this group of researchers' intervention (Battistich, Solomon, Watson, & Schaps, 1994; Battistich, Solomon, Watson, & Schaps, 1997). The caring school community is one in which teachers and students care about and support one another, share common values, norms, goals, and a sense of belonging, and jointly participate in group decisions. Clearly, empathy and sympathy are involved in such an environment. Prosocial behavior and reasoning appear to be enhanced in those schools and classrooms in which a sense of a caring community is achieved (Battistich et al., 1994). Structural equation modeling suggests that many of the outcomes of the CDP intervention such as concern for others and altruistic behavior are outcomes of students' developing a sense of community (Battistich et al., 1997). Moreover, students' perception of the school as a caring environment apparently mediated the effects of the intervention package on concern for others, conflict resolution skills, altruistic behaviors, and other positive outcomes.

Children also can be taught to experience greater empathy for animals. Ascione (1992) administered a humane education program to first, second, fourth, and fifth graders for nearly 40 hours over the school year. There was limited evidence of an immediate effect for younger children, although there was an effect on self-reported humane attitudes a year later (Ascione & Weber, 1993). Humane attitudes were enhanced for the fourth graders in the immediate posttest and for fourth and fifth graders a year later. Moreover, empathy directed at humans increased for fourth and fifth graders on both the initial and one-year posttest (Ascione & Weber, 1993).

In summary, although quite limited in quantity and often not explicitly focused on empathy per se, existing studies suggest that empathy and/or sympathy can be used to foster prosocial behavior in children. However, additional research in which the effects of promoting sympathy on prosocial behavior are explicitly tested is needed to examine the role of empathy-related responding in other-oriented prosocial behavior and to assess its utility for interventions.

Empathy-Related Responding and Aggression and Externalizing Problems

Most scholars have defined aggression as action that inflicts bodily or mental harm on others (Loeber & Stouthamer-Loeber, 1998). Some (Coie & Dodge, 1998) also have included in their definition the aggressor's intent to harm. Aggressive behaviors often occur in a context of other antisocial behaviors and, due to this high comorbidity, many investigators have

aggregated different forms of behaviors that have traditionally been considered as aggressive with other different forms of antisocial behavior, such as delinquency or vandalism (Dodge, Coie, & Lynam, 2006; Tremblay, 2000). In our review of the association between empathy and aggression, we include a range of behaviors defined as aggressive (i.e., specific types of aggression or composites of various types of aggression), as well as those types of antisocial behaviors that tend to be substantially related to aggressive behaviors (e.g., delinquency, violence, criminal activity) and clinical disorders that have been proved to be highly characterized by aggressive and antisocial behaviors (i.e., conduct disorders, psychopathy; Achenbach & Edelbrock, 1979; Blair, 2005).

The Association between Empathy-related Responding and Aggression/Externalizing Behaviors

In a meta-analysis of studies including the relation between empathy and aggression, Miller and Eisenberg (1988) sometimes found a negative correlation between these constructs, although the degree of this association ranged from low to moderate. In particular, the association was significant when empathy (or sympathy) was measured with questionnaires (i.e., dispositional empathy), but not with other methods such as facial affect, experimental induction, and picture/story methods (i.e., mostly measures of situational empathy). Moreover, these authors found that this relation was not consistent for preschoolers. In fact, some scholars have found a higher level of empathy in aggressive than nonaggressive young children (Feshbach & Feshbach, 1969; Gill & Calkins, 2003). Miller and Eisenberg (1988) suggested that these results may be due to the common links of both empathy and aggression with general arousability/emotionality or may reflect the fact that both often may entail a social orientation in the early years of life (Feshbach & Feshbach, 1969; Gill & Calkins, 2003).

In another review that examined the relation between empathy-related responding and aggression, Lovett and Sheffield (2007) did not find consistent relations between empathy and aggression or delinquent behavior for children. However, they did report a negative, significant relation for adolescents, especially when self-report measures of empathy were used.

As suggested by the aforementioned reviews, the relations between empathy-related responding and aggression may become more negative with age. In fact, in the school years, researchers have found a relatively consistent negative relation between empathy and aggression or externalizing problems. In a study of mid-elementary school children and using structural models, Zhou et al. (2002) found a negative relation between empathy with pictures of others' negative emotions (based on only facial reactions at the first assessment and on facial and reported responses two years later) and externalizing problem behaviors (reported by teachers and parents), both cross-sectionally or longitudinally when controlling for the initial level of empathy. The relation of self-reported empathy with externalizing problems appeared to emerge over a two-year period in elementary school. Similarly, in a study of young adolescents in the Netherlands, self-reported dispositional empathy was related negatively with self-reported aggressive behavior and delinquent behavior (de Kemp, Overbeek, de Wied, Engels, & Scholte, 2007; also see de Wied, van Boxtel, Zaalberg, Goudena, & Matthys, 2006). Preadolescent/young adolescent boys with disruptive behavior also have been found to report less empathy than normal controls in response to vignettes portraying anger and sadness, but not happiness (de Wied et al., 2006). There is mounting evidence that bullying is related to low levels of empathy (e.g., Jolliffe & Farrington, 2006; Raskauskas, Gregory, Harvey, Rifshana, & Evans, 2010; Schultze-Krumbholz & Scheithauer, 2009; Warden & MacKinnon, 2003). Moreover, children's and adolescents' self-reported externalizing problem behaviors have been negatively related to their self-

reported empathic efficacy (Bandura, Caprara, Barbaranelli, Gerbino, & Pastorelli, 2003; Caprara, Gerbino, Paciello, Di Giunta, & Pastorelli, in press).

Some investigators have examined the relation between sympathy (rather than empathy) and aggression or externalizing problems. For example, Eisenberg et al. (1996) found that teacher-reported dispositional sympathy of kindergarteners through 2nd graders was positively related to teachers' reports of nonaggressive-socially appropriate behavior and negatively related to mothers' reports of externalizing problem behavior (including aggression), although these relations were stronger for boys than girls. In addition, children's self-reported dispositional sympathy was negatively related to boys' mother-reported problem behavior. Moreover, in a 4-year follow-up of those children (Murphy, Shepard, Eisenberg, Fabes, & Guthrie, 1999), mothers' reports of children's sympathy were inversely related to mothers' and/or fathers' reports of externalizing problems 2, 3, and 6 years prior, as well as with concurrent externalizing, especially for boys. Similar inverse relations for both parents' and teachers' reports of elementary school children's sympathy were obtained in Indonesia (Eisenberg, Liew, & Pidada, 2001). Moreover, Zahn-Waxler et al. (1995) found that observed concern for someone in distress was negatively related to verbal aggression expressed when responding to hypothetical interpersonal conflicts involving distress.

Some longitudinal data suggest that the negative relation between sympathy and aggression/externalizing, like that for empathy, becomes more consistent with age. Hastings et al. (2000) found that 4- to 5-year olds high and low in risk for behavioral problems (internalizing and externalizing) did not differ in their observed concern for others. However, there was a significant decrease in concern for others from age 4–5 to age 6–7 only for the high-risk children. At age 6–7 years, the high-risk children were relatively low in self-reported empathy and in teacher-reported prosocial/empathic responding. Greater concern at 4–5 years predicted a decline in the stability and severity of externalizing problems at age 6–7 years and greater concern/empathy/prosocial behavior (a composite) at age 6–7 years predicted a decline in the stability of these problems by 9–10 years.

A number of investigators have focused on the relations between empathy and/or sympathy and specific forms of aggression, rather than global measures of aggression and/or externalizing problems. In general, negative relations between empathy and/or sympathy and specific types of aggression have been found for children (empathy with physical and verbal aggression; Strayer & Roberts, 2004; also see LeSure-Lester, 2000), adolescents (empathy/sympathy/prosocial behavior with indirect, physical, and verbal aggression; Kaukiainen et al. 1999), young adults (sympathy with relational aggression, but for males only, and overt aggression for females only; Loudin, Loukas, & Robinson, 2003), and adults (sympathetic concern with verbal but not physical or impulsive aggression; Teten, Miller, Bailey, Dunn, & Kent, 2008). In addition, Carrasco, Barker, Tremblay, and Vitaro (2006) found that boys with high, stable trajectories for physical aggression or vandalism (but not theft), compared to those with low, declining trajectories, had lower scores on empathy/sympathy.

Empathy and Severe Problem Behavior

Children and adults with psychopathy are characterized by pronounced emotional deficits (low empathy and guilt) and behavioral disturbance (criminal activity and, frequently, violence; Blair, 2005; Frick & Morris, 2004; Hare, Glass, & Newman, 2006; Hicks, Markon, Patrick, Krueger, & Newman, 2004). Such individuals are, by definition, expected to be low in empathy.

In research with children, youths with callous unemotional traits (CU; e.g., lack of empathy, lack of guilt, callous use of others for one's own gain) are viewed as having psychopathic traits and tend to be aggressive and prone to antisocial behavior (Frick & White, 2008; Hawes & Dadds, 2005; Penney & Moretti, 2007). Frick and White (2008) sub-typed children with conduct disorders (CD) based on the presence or the absence of CU traits and concluded that CU may emerge from the lack of an appropriate level of empathy and from temperamental deficits in emotional reactivity. Comparing antisocial children/adolescents with and without CU, several researchers have found that antisocial/CU children are characterized by less sensitivity to distress cues, more fearlessness, and less responsiveness to punishment cues than antisocial-only children (see Frick & White, 2008). Moreover, Holmqvist (2008) reported that young criminal offenders' CU scores were negatively related to dispositional empathy whereas their impulsive/conduct problems scores were not. Frick and White (2008) concluded that CU traits appear to be important for identifying antisocial youths who exhibit a stable and aggressive pattern of behavior, are at increased risk for early-onset delinquency, and are at risk for later antisocial and delinquent behavior. However, adolescents with undifferentiated CD also have been found to score low on empathy (both situational and dispositional, Cohen & Strayer, 1996; Robinson, Roberts, Strayer, & Koopman, 2007) and perspective taking and high on dispositional personal distress (Cohen & Strayer, 1996; also see Dadds et al., 2009).

When perpetrators of aggressive acts receive feedback regarding their actions based on their recognition of their victims' fear and sadness, these emotional cues are expected to lead them to inhibit their aggression (Feshbach & Feshbach, 1969; Mehrabian & Epstein, 1972). Thus, Blair (2005) argued that reduced sensitivity of people with psychopathic traits to a victim's distress can help to explain the association between psychopathy and aggression. Consistent with this view, Blair and others have found deficits in recognizing and processing emotions, especially fear, sadness (primarily for children), and sometimes disgust, but not happiness, surprise, or anger, in adults and children with psychopathic tendencies (Blair, 2005; Blair & Coles, 2000; Blair, Colledge, Murray, & Mitchell, 2001; Kosson, Suchy, Mayer, & Libby, 2002).

Blair (1999; Blair, Jones, Clark, & Smith, 1997) also found that adults with psychopathy and children with psychopathic tendencies showed reduced autonomic responding to others' sad expressions. Blair (2005) argued that individuals with psychopathy are unimpaired in cognitive empathy and probably in mirroring the motor responses of an observed actor (motor empathy), but have a severe dysfunction in emotional empathy (although Dadds et al., 2009, found that cognitive empathy was related to psychopathic traits for children and women but not men).

Empathy and Offending

In their meta-analysis of studies relating measures of cognitive and affective empathy to adolescents' and adults' offending (i.e., behaviors associated with official sanctions such as violating a law), Jolliffe and Farrington (2004) found that cognitive empathy had a stronger negative relation with offending (an effect size of $-.48$) than did affective empathy (effect size = -0.11 , $p < .004$), regardless of the type of offense or the age group studied. However, different results emerged when the relation of empathy with offending was examined in samples of adults versus adolescents. Specifically, Jolliffe and Farrington (2004) found a more consistent negative relation of offending with affective empathy (but not cognitive empathy) for adolescents compared to adults. Surprisingly, the relation between affective empathy and offending in adults was positive (effect size = $.18$).

It is possible that relations of empathy and sympathy with offending would be clearer or stronger if offenders were differentiated in terms of their psychopathic traits. Pardini,

Lochman, and Frick (2003) found that incarcerated adolescents' sympathy was negatively related to CU traits but not dysregulated characteristics. However, Jolliffe and Farrington (2004) did not differentiate between studies tapping empathy and those measuring sympathy.

Differences across findings for adults and adolescents could be due in part to a lower level of reported offending during adulthood than in adolescence because adults have learned to modify their responses in order to "fake good" (Jolliffe & Farrington, 2004). In fact, it is possible that the reports of offenders in regard to their sympathy/empathy are not very accurate (Kämpfe, Penzhorn, Schikora, Dünzl, and Schneidenbach, 2009). Even though self-reports are helpful in overcoming the problems related with obtaining information related to official records (number of offenses, offense type, offending) in the control group, convicted offenders may not be highly accurate responders to questionnaires (e.g., their responses might be affected by their desire to obtain parole and/or stay on probation).

In line with the doubts related to the use of data collected through offenders' self-reports, Kämpfe et al. (2009) compared delinquent and non-delinquent youth in their self-reported attitude towards empathy, their social desirability, and their spontaneous cognitive associations with empathy (through the Implicit Association Test; Greenwald, McGhee, & Schwartz, 1998). Kämpfe et al. (2009) found a positive relation between social desirability and self-reported empathy within the delinquent sample. Moreover, delinquent, incarcerated participants reported a higher level of cognitive concern (e.g., perspective taking) albeit not emotional concern or sensitivity compared to the non-delinquent control participants, a finding that appeared partly due to group differences in social desirability responding. In contrast, the indirect (implicit association) measure of participants' reactions to empathy-related words indicated that there was a positive association between responding to empathy-related words and words expressing goodness only for non-delinquent youths. Thus, empathy seemed to have a more positive connotation for the non-delinquent than delinquent sample.

Deficits in empathy have been examined in specific forensic populations such as sexual offenders, as well as for delinquents and more general offenders. In their meta-analysis, Jolliffe and Farrington (2004) found a stronger negative relation between offending and affective empathy in studies in which sexual offenders were not differentiated from other offenders than in studies including only sex offenders. Nonetheless, some scholars have found significant differences between adult sexual offenders and non-offenders on empathy, especially toward victims (Fisher, Beech, & Browne, 1999; McGrath, Cann, & Konopasky, 1998). Fernandez and Marshall (2003) found that rapists reported more empathy than nonsexual offenders toward women in general and the same degree of empathy toward a woman who had been a victim of sexual assault by someone else; however, rapists exhibited deficits in empathy toward their own victims. Deficits in empathy toward sexual offenders' own victims have been positively related to sex-specific and generic cognitive distortions justifying sexually aggressive behavior in a given circumstance (McCrary et al., 2008), especially for highly deviant offenders (those high in pro-offending attitudes and social inadequacy; Fisher et al., 1999). In another study of adult sexual offenders, Smallbone, Wheaton, and Hourigan (2003) found that low scores on general, dispositional sympathy (rather than a measure of empathy/sympathy related to victims) were related to nonsexual, but not sexual, offense convictions, especially for violent offenses and for miscellaneous offenses for traffic, drug, or public disorder violations. However, they also found that rapists were lower on dispositional sympathy than were intrafamilial child-molesters.

An association between violence and specific types of empathy deficits has been found for child molesters. Fernandez, Marshall, Lightbody, and O'Sullivan (1999) found that this

group was unable to experience emotions that matched those felt by their own victims; however, they were able to empathize with a child disfigured by a motor vehicle accident. Molesters also displayed less empathy for their own victims than for a non-specific sexual abuse victim (but less than non-offenders for even the latter), suggesting that deficits may be somewhat person-specific and may be better construed as a cognitive distortion than an empathy deficit. Fisher et al. (1999) found that child-molesters were *higher* than non-offenders in both general (non-victim related) personal distress and sympathy, but lower in empathy toward victims of sexual abuse. They suggested that the finding for sympathy was due to their normal sample having a lower score on sympathy than has typically been found.

There is limited research on empathy deficits in adolescent sexual offenders. Some scholars have not found significant differences between juvenile sexual offenders and non-offenders for dispositional empathy/sympathy (Monto, Zgourides, & Harris, 1998). Hunter, Figueredo, Becker, and Malamuth (2007) found that deficits in general dispositional sympathy were linked to non-sexual criminal offending in juvenile sex offenders; in addition, exposure to male-perpetrated physical and sexual abuse of females was related to a lower sympathetic responsiveness. McCrady et al. (2008) reported that adolescent sexual offenders' self-serving cognitive distortions, in general and sex-specific, were higher than in a normative sample and that these distortions were associated with low empathy for victims, albeit less strongly for one's own victim. Thus, although it is not clear that sexual offenders consistently score low on measures of general dispositional empathy or sympathy, they do appear to exhibit cognitive distortions that make it easier to avoid empathizing with victims, perhaps especially their own.

In summary, although it is still not possible to conclude that empathy is an important cause of engaging in offenses, empirical evidence supports the view that a lack of empathy associated with certain types of offenses. There is a need to examine potential causal relations with appropriate statistical methods within longitudinal studies and with experimental interventions to determine if offenders commit the crimes because of a failure to empathize and sympathize or, for example, due to the joint effect of a third factor on the commission of the crimes and of the development of empathy.

Neurocognitive Systems Involved in the Relation between Empathy and Aggression

Structural and functional abnormalities in the brain regions that are involved in empathy (i.e., limbic and prefrontal regions) have been identified in adults and in children with psychopathy (De Brito et al., 2009; Decety, Michalska, Akitsuki, & Lahey, 2009; Shirtcliff et al., 2009). A complete review of the neuroscience results regarding empathy and its association with psychopathy is outside the scope of this review, but interested readers are referred to Decety and Ickes (2009). Below we briefly review illustrative findings supporting abnormal functioning of the brain regions and the neurocircuitry implicated in empathy in youths with CD.

There is some evidence that adults with high levels of psychopathy exhibit decreased grey matter in a number of parts of the brain (e.g., de Oliveira-Souza et al., 2008). Moreover, De Brito et al. (2009) found that boys with CD/CU (i.e., lack of empathy), as compared with control boys, exhibited increased grey matter concentration in the medial orbitofrontal and anterior cingulate cortices, as well as increased grey matter volume and concentration in the temporal lobes bilaterally. These authors suggested that the findings indicate a delay for CU boys in cortical maturation in several brain areas implicated in morality, decision making, and empathy.

Other scholars have demonstrated that youths with CD exhibit an atypical pattern of neural response when watching other people in pain. In particular, Decety et al. (2009) used fMRI

data to examine the brain response to pain empathy-eliciting stimuli in adolescents with CD and without CD. In both groups, the perception of others in pain was associated with activation of the so-called pain matrix that includes the anterior cingulate cortex (ACC), insula, somatosensory cortex, supplementary motor area and periaqueductal gray. Furthermore, Decety et al. (2009) found that youths with CD exhibited a lower reciprocal influence of amygdala and prefrontal neural networks (less amygdala-prefrontal coupling) when watching pain inflicted by another than did control youth. Similarly, Sterzer, Stadler, Krebs, Kleinschmidt, and Poustka (2005) found reduced left amygdala and ACC activation in CD boys in response to images of negative emotion compared with healthy controls. However, conflicting results have been found in regard to reduced amygdala responding to negatively valenced stimuli (e.g., Decety et al., 2009; Sterzer et al., 2005). Nonetheless, overall, initial evidence suggests that youths with CD differ from non-disordered youths in their neural responding to others' emotions.

The impact that peripheral steroid hormones, such as cortisol, have on psychopathic individuals' reduced ability to understand others' emotions also has been examined. The brain regions involved in empathy appear to integrate input from the peripheral physiological system and the endocrine system; moreover, cortisol may modulate activity in specific parts of the brain such as the rostral and subgenual anterior cingulate cortices (Liberzon et al., 2007). It has been found that this neurocircuitry is less reactive in individuals with CD, suggesting that they have an impaired representation of stress or distress cues due to a general pattern of hypoarousal in stress-responsive systems (see Shirtcliff et al., 2009).

There is a fairly consistent literature indicating that, compared with healthy controls, clinic-referred disruptive children, disruptive children with persistent and early onset aggression, and children with CD all have low cortisol levels (Shirtcliff et al., 2009), especially for the subgroup of disruptive children with CU symptoms who show the greatest evidence of hypoarousal (including reduced amygdala responsivity). Moreover, it has been found that the nucleus of the hypothalamus in youths with CD does not receive enough input from the amygdala and the insula; thus, the hypothalamus cannot cause the typical cortisol release. These results suggest that deficits in empathy in psychopathic individuals may be due to neurobiological impairments, such as reduced stress reactivity to their own and others' distress, and are not necessarily due to a reduced ability to understand others' emotions (Shirtcliff et al., 2009).

Shirtcliff et al. (2009) suggested that the neurobiology of antisocial behaviour, including for CUs, may be fundamentally different in males and females. Although work on this issue is limited, gender differences have been found in the empathy and psychopathy-related neurocircuitry, such that the neurocircuitry containing mirror neurons are typically more reactive in females (Schulte-Ruther, Markowitsch, Shah, Fink, & Piefke, 2008). Consistent with this argument, in a study of children with antisocial/CU traits, Dadds et al. (2009) found a deficit in affective empathy for males in childhood and adulthood but not for females.

Implications: Interventions for Antisocial Behavior

Because of the likely role of empathy and/or sympathy in aggression and at least some types of antisocial behavior, theorists and researchers have viewed empathy/sympathy as a mechanism to target in intervention/prevention programs. In fact, empathy training has been successfully utilized as a means for reducing aggressive and antisocial behavior (e.g., Goldstein, Glick, & Gibbs, 1998; compare with Feshbach & Feshbach, 1982).

For example, McMahon and Washburn (2003) implemented a program with students in fifth to eighth grade designed to help children understand interpersonal violence, enhance empathy and anger management, and problem solve, and to apply these skills in interpersonal situations. They found an increase in self-reported knowledge and skills, self-reported empathy, and teacher-reported prosocial behavior, and the increase in empathy predicted less aggression. Similarly, Jagers et al. (2007) found that their school intervention led to increases in empathy which, in turn, were associated with declines in violence. The implemented program included lessons presented by trained health educators designed to be culturally sensitive and to promote the cognitive-behavioral skills needed to foster self-esteem, empathy, stress management, and goal setting; enhance decision-making, problem solving, and conflict resolution skills; and develop the self-efficacy needed to resist peer pressure and to negotiate in interpersonal situations.

Using a whole-school intervention targeted at bullying, Fonagy et al. (2009) tested a program designed to improve the capacity of school staff and children to interpret both one's own and others' behavior in terms of mental states (beliefs, wishes, feelings), with the assumption that greater awareness of other people's feelings would counteract the temptation to bully others. They found that their intervention, compared to treatment as usual, reduced aggression and victimization among elementary school children. Empathy for victims declined in the treatment-as-usual schools but not for those who received the intervention—a finding that suggested that maintaining empathy may have been one mediator of the treatment's efficacy. Not all investigators, however, have found that attempts to enhance empathy have contributed to the success of their interventions for externalizing problems (e.g., Kimber, Sandell, & Bremberg, 2008).

A number of other researchers have sought to decrease aggression and other negative behaviors using procedures that include, but are not confined to, those that would be expected to foster empathy and sympathy but have not specifically tried to promote empathy/sympathy. For example, the PATHS (Promoting Alternative Thinking Strategies) intervention incorporates procedures specifically designed to improve emotional competence (e.g., Izard et al., 2008; Riggs, Greenberg, Kusché, & Pentz, 2006). PATHS is primarily focused on improving self-control, emotional understanding, and interpersonal problem solving. As part of the training in classrooms, students are taught to identify their and others' emotions and to manage their feelings. Greenberg and colleagues (e.g., Domitrovich, Cortes, & Greenberg, 2007; Greenberg & Kusché, 1997; Riggs et al., 2006) found that the intervention improved children's emotional vocabularies and understanding of emotion, reduced their aggression, enhanced regulation, and/or fostered prosocial social skills. In addition, although these researchers have seldom reported the effects of the program on empathy-related or prosocial outcomes, improvements in empathy have been noted (Greenberg, personal communication, October, 2009; Greenberg & Kusché, 1997). This is not surprising given the relation of both emotion understanding and self-regulation to sympathy (see Eisenberg et al., 2006).

The finding that an impairment in empathy is associated especially with children's CD/CU (Frick & White, 2008) highlights the importance of designing preventive interventions that can foster the development of empathy in this difficult population (Hawes & Dadds, 2005). van Baardewijk et al. (2009) found that when the salience of the victim's pain and discomfort was increased for children with psychopathy, they showed less aggression than children with psychopathy who did not receive this manipulation. Thus, one way to intervene in reducing aggression might be to train parents and teachers to focus the attention of CU children on the feelings of the victims (van Baardewijk, Stegge, Bushman, & Vermeiren, 2009). Moreover, parents and teachers could be trained to provide their children opportunities (e.g., role play) for vicariously experiencing empathy (Björkqvist, Österman,

& Kaukiainen, 2000; Izard, Fine, Mostow, Trentacosta, & Campbell, 2002). Training might involve, for example, the presentation of films in which the viewer identifies with the victim rather than with the aggressor, and negative consequences of aggression are presented clearly (Björkqvist et al., 2000). Even though children with CU traits appear to be relatively unresponsive to the quality of parenting (Wootton, Frick, Shelton, & Silverthorn, 1997), Hawes and Dadds (2005) reported that CD children with and without CU traits responded well to an intervention that focused on teaching parents methods of using positive reinforcement to encourage appropriate behavior. Thus, it is possible that interventions involving socializers could be effective.

Relations between Empathy and Intergroup Relations

The notion of “us” versus “them” often is encouraged in seemingly innocuous settings such as in sporting events and other games. The competitive spirit is at the core of America and is cultivated in our children early on in life. Unfortunately, the ugly and more serious side of the “us” versus “them” conflict has been noted throughout history, including in regard to religious wars and racial segregation. Many social debates in America and across the globe involve negative intergroup relations, for instance, immigration concerns, inter-country conflict, rights for homosexuals, and attitudes towards stigmatized people (e.g., people living with AIDS).

In this section, the following constructs involved in negative intergroup relations, and their associations with empathy, are examined: prejudice—“...negative attitudes toward social groups, to create a psychological distance between the prejudiced person and the target of his or her prejudice” (Stephan & Finlay, 1999, p. 729), discrimination—“...differential treatment of groups because of their group labels; in particular, favoritism of one’s own group (ingroup) relative to another group (outgroup) in the absence of a legitimate bias for that favoritism” (see Wilder & Simon, 2001, pp.154–155), and stigma—“...when elements of labeling, stereotyping, separation, status loss, and discrimination occur together in a power situation that allows them” (see Link & Phelan, 2001, p. 377; see also Major & O’Brien, 2005). Implications and strategies for breaking down, or reaching across, group divides to promote social harmony are discussed.

Intergroup Relations

According to Social Identity and Self-Categorization Theory, people differentiate groups to which they belong (ingroups) from groups of which they do not belong (outgroups; Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Individuals often demonstrate a positive bias toward ingroup members. The relation between group identification and positive ingroup bias may be moderated by factors such as one’s collectivist versus individualist, and relational versus autonomous, orientation (see Brown, 2000). In some cases, feelings of liking toward ingroup members (ingroup favoritism) are not reciprocally related with dislike toward outgroup members (outgroup derogation; see Brewer, 1999). A complete review of intergroup theories and the substantial body of work that has grown out of them is beyond the scope of this review, but readers are referred to Dovidio, Gaertner, and Esses (2008), Hewstone, Rubin, and Willis (2002), and Hogg, Abrams, Otten, and Hinkle (2004).

Link and Phelan (2001) suggested the “us” versus “them” distinction also plays into stigmatization. They argued that stigmatization occurs when socially salient human differences are distinguished and labeled. The label is connoted with stereotypes, lends itself to an “us” versus “them” distinction, and promotes status loss and discrimination (e.g., not allowing someone to rent an apartment because she is an exotic dancer).

Empathy and Intergroup Relations: Theoretical and Empirical Associations

Individuals often have exaggerated perceptions of homogeneity within outgroups and inflated perceptions of differences between ingroups and outgroups. They also tend to see similarities between themselves and ingroup members, and outgroup members as dissimilar from themselves (see Stürmer & Snyder, 2010). Scholars have cited the perception of similarity, which may result from shared goals or signals of kinship, as an underlying cause of perspective taking and empathy (e.g., Cialdini et al., 1997; Sherif, 1966). One might conjecture that perceived similarity fosters ingroup empathy, whereas perceived differences, in concert with dislike, avert empathic responding from outgroup members (e.g., see Stürmer & Snyder, 2010). This perspective was reflected in some of the comments by fundraisers of the Pakistani disaster, and was reflected in readers' comments, discussed at the beginning of this review: Because of the lack of perceived similarities and the view that Pakistanis constitute an outgroup, many people in Canada and the United States seem reluctant to assist the flood victims.

This notion makes conceptual sense, but empirical results are mixed. For example, Brown, Bradley, and Lang (2006) examined undergraduates' reactions to pictures of ethnic ingroup and outgroup members. The prediction based on the ingroup empathy hypothesis was that participants would show greater pleasant and unpleasant reactions (depending on whether the stimulus picture was pleasant or unpleasant, respectively) to pictures of ingroup as opposed to outgroup members. A reaction was considered empathic if it was congruent with the stimulus pictures (e.g., reporting pleasant feelings or increased zygomatic [smiling] activity when pleasant pictures were displayed and reporting feelings of unpleasantness or increased corrugator [frowning] activity when unpleasant pictures were displayed). There was some, albeit qualified, support for the ingroup empathy hypothesis. For example, African Americans reported higher pleasure when viewing pleasant pictures of Blacks versus Whites; however, ratings did not differ when viewing unpleasant pictures. European Americans reported higher pleasure than African Americans did when viewing pleasant pictures of Whites, but European Americans' pleasure ratings for pleasant pictures of Whites and Blacks did not differ. These findings and results from physiological measures suggested the ingroup empathy hypothesis was supported more consistently with the African American compared to the European American participants.

If empathy is fostered toward an outgroup member/stigmatized person, we would expect less prejudice and discrimination toward them and, particularly when sympathy evolves from empathy, an increase in prosocial behavior. As previously discussed, investigators have found sympathy to relate to prosocial behavior in children and adults using a variety of measures (see Eisenberg et al., 2006; similar results have also been found with adults [e.g., Batson, 1991]). Thus, efforts to get the public to empathize with the everyday struggles of the Pakistani flood victims—for example, to imagine the feelings of parents without food, shelter, or medicine for their children and their elderly parents—might be expected to increase donations to this group of people in need.

Stephan and Finlay (1999) discussed how emotional empathy might alter prejudice. They argued that parallel empathy (an emotion matching the target's emotion; what we label *empathy*) may arouse feelings of injustice, which in turn may counteract prejudice. Reactive empathy includes feelings such as empathic concern (what we label *sympathy*) or personal distress in response to comprehending the other's situation. Concern was predicted to lead to cognitive dissonance and a desire to change prejudicial attitudes to parallel the experience of compassionate feelings. Personal distress was not predicted to improve intergroup relations.

Batson and colleagues (Batson, Chang, Orr, & Rowland, 2002; Batson, Polycarpou, et al., 1997) also argued that inducing empathy may alter negative attitudes towards stigmatized

people and groups. Taking the perspective of a stigmatized person was hypothesized to enhance empathy, which consequently would increase the empathizer's value of the stigmatized person's welfare. If group membership is salient and relevant to the perceived need (e.g., the stigmatized person is the target of an ethnic slur), increased value and changed attitudes may generalize from the group member to the group.

Batson and colleagues' studies support the prediction that induction of empathy is related to positive attitudes toward stigmatized groups (Batson et al., 2002; Batson, Polycarpou, et al., 1997). In Batson's work, empathy often has been induced by telling participants to imagine how another person feels while they listen to an interview with a stigmatized person.

Batson and colleagues (2002) also argued that an improved attitude toward a stigmatized group increases the motivation to help the stigmatized group. Indeed, undergraduates asked to imagine the feelings of a stigmatized person (a drug addict and dealer) reported more positive attitudes toward drug users and also were more inclined to help other drug users than were the participants asked to remain objective. This relation between induced empathy and helping was statistically mediated by the effect of empathy on attitudes (Batson et al., 2002). In a similar manner, Shih, Wang, Bucher, and Stotzer (2009) found that taking the perspective of an outgroup member increased undergraduates' helping behavior toward another member of the same outgroup and that the relation was mediated by empathy.

A few researchers have delineated situations in which using an empathy induction to improve intergroup relations may backfire. For example, Batson, Polycarpou, and colleagues (1997) cautioned that distancing and defensive reactions may arise if a person feels vulnerable during perspective taking, for instance, due to noting many parallels between the outgroup member's and his or her own situation. Consistent with this idea, they found that young women expressed a more negative attitude, albeit not significantly more negative, toward a young woman who contracted AIDS because of unprotected sex when the participants were told to imagine her feelings (versus not told to do so). The young women might have felt especially vulnerable due to easily being able to envision themselves in a similar situation.

Vorauer and Sasaki (2009) reported that an empathy induction for outgroup members may produce defensive reactions when in the context of ingroups and outgroups interacting. They asserted that activation of metastereotypes-- cognitions regarding how the outgroup views the ingroup--may occur when interacting, or when anticipating interacting, with members from an outgroup. The self-focus prompted by metastereotype activation was predicted to avert positive effects normally associated with empathy. Vorauer and Sasaki's theory echoes Batson et al.'s notion of vulnerability and self-focus being the root of defensive reactions.

Vorauer and Sasaki (2009) found support for their assertions. Introductory psychology students were shown a video regarding an ethnic outgroup member and told to remain objective or to imagine the outgroup member's feelings (objective and empathy conditions, respectively). To prompt anticipation of intragroup or intergroup interaction, they were told that they would have to discuss the video with an ethnic ingroup or outgroup member. The researchers made the participants believe they were exchanging information with an ingroup or outgroup member. Participants in the empathy condition reported higher empathy (this measure mostly contained items tapping what we label *sympathy*) for the outgroup member than the participants in the objective condition; thus, the empathy manipulation appeared to be effective in that it induced empathy. However, participants in the objective/intergroup or empathy/intragroup conditions exhibited greater prejudice reduction than participants in the empathy/intergroup or objective/intragroup conditions. Furthermore, activation of metastereotypes was higher for participants in the empathy/intergroup interaction condition

than in the empathy/intragroup, objective/intergroup, or objective/intragroup conditions. In addition, for students with higher prejudice in the intergroup condition, individuals told to be empathic reported a lower desire to interact with their supposed interaction partner in the future (Vorauer & Sasaki, 2009).

Due to studies pointing to exceptions of the success of empathy-inducing paradigms (Batson, Polycarpou, et al., 1997; Vorauer & Sasaki, 2009), interventionists may want to exercise caution when attempting to induce empathy for an outgroup member. For example, it may be wise to avoid empathy inductions when the intervention target is expected to feel personally vulnerable. Wording of the paradigm may be important to decrease the odds of promoting self-focus or personal distress. For example, Batson, Early, and Salvarani (1997) suggested that imagining how another person feels may promote sympathy, whereas imagining how you would feel in the other's position may promote sympathy or personal distress.

Stigmatization tends to prompt aversion and avoidance, which is likely to thwart sympathy and prosocial behavior (see Pryor, Reeder, Monroe, & Patel, 2010). Perceptions of controllability or responsibility for one's condition may influence sympathetic feelings for stigmatized others. For example, Corrigan, Markowitz, Watson, Rowan, and Kubiak (2003) examined factors associated with discriminatory and helping behavior toward a member of a stigmatized group, a hypothetical man with a mental illness. Although the study was cross-sectional and used vignettes, the results supported the idea that believing that the man was responsible for the cause of his mental illness was negatively related to self-reported pity (this measure included sympathy and concern items) and positively related to self-reported anger and fear toward the man. Furthermore, anger and fear were positively related to rejecting responses (e.g., mandatory treatment and removal from the community), whereas pity was positively related to greater reported willingness to help and not avoid the man. Similar results have emerged with other stigmatized groups. For example, sympathy toward a person living with AIDS was found to mediate the relation between perceptions of controllability and intent to help the person (perceiving AIDS contraction as out of target's control → higher sympathy → greater helping intentions; Seacat, Hirschman, & Mickelson, 2007).

Instead of using measures of situational empathy, some researchers have examined dispositional differences in empathy when exploring intergroup relations. For example, undergraduates' dispositional empathy (a composite of perspective taking and empathic concern) has been positively related to social tolerance of stigmatized others (Phelan & Basow, 2007).

Not all researchers agree that dispositional empathy is a primary motivator for outgroup helping. Stürmer, Snyder, and Omoto (2005) argued that perceived differences between groups decrease the likelihood of empathy and helping toward outgroup members and motivations other than empathy might be better predictors of outgroup helping. This argument was based on the idea that empathy might require attachment to the person in need and on findings in which perceived similarity and attachment were shown to be unlikely across groups. They found that empathy was a stronger predictor of helping for ingroup versus outgroup volunteers (homosexual or heterosexual volunteers, respectively, helping homosexuals with HIV/AIDS). Interpersonal attraction--positively evaluating the other's attributes or characteristics--was a stronger predictor of helping for outgroup than ingroup volunteers (see also Stürmer, Snyder, Kropp, & Siem, 2006). Stürmer and Snyder (2010) also have suggested that negative feelings, such as anxiety or mistrust, evoked by outgroup members might signal that helping an outgroup member will involve more cost than helping an ingroup member; however, the perception that the benefits of helping (e.g., maintaining

power differences, self-esteem enhancement) outweigh the costs could motivate helping toward outgroup members.

Gaertner and Dovidio (2005) discussed and presented empirical support for a contemporary form of racism, *aversive racism*, which is subtle, unintentional, and perhaps unconscious, yet potentially as harmful as outright bigotry due to the discriminatory practices of aversive racists (e.g., failure to help or hire members of other races; see also Dovidio, Gaertner, Kawakami, & Hodson, 2002). Gaertner and Dovidio (2005) stated this style of racism “is presumed to characterize the racial attitudes of most well-educated and liberal Whites in the United States” (p. 618). They hypothesized that the aversive racist’s juxtaposition of egalitarian values and unconscious negative feelings leads to feelings of anxiety and discomfort in interactions with Blacks, and leads to disengagement or avoidance when possible.

In a similar manner, Bäckström and Björklund (2007) compared classical prejudice—“stereotypical beliefs regarding attributes of a group, coupled with an explicitly negative attitude” (p. 10)—to modern prejudice, which is more covert and subtle (e.g., expressing that discrimination is no longer a problem, not supporting programs to assist other groups). Distinguishing modern from classical prejudice is an interesting notion, but they may not be distinct constructs and they appear to relate to empathy in the same manner. Using a Swedish sample, Bäckström and Björklund’s (2007) results suggested that conceptualizing prejudice as two factors rather than one did not significantly improve model fit. They also found that empathy was negatively related to both modern and classical prejudice and these relations did not differ in magnitude. The measure of empathy used contained items assessing empathic concern (what we label *sympathy*), personal distress, fantasy empathy (tendency to imagine one’s self in fictional situations), and perspective taking; it is possible that the components of empathy-related responding relate in different ways to prejudice and discrimination.

Much of the literature has been based on undergraduate or adult samples, but exceptions exist. Children’s dispositional empathy has been positively related to acceptance of individual differences (Bryant, 1982) and has been positively related to liking members of outgroups. For example, using 5- to 12-year-old Anglo-Australian children, Nesdale, Griffith, Durkin, and Maass (2005) found that liking for same-ethnicity outgroup members (members of the “other” team who also were Anglo-Australian) did not differ as a function of children’s empathy; however, liking for outgroup members of a different ethnicity (Pacific Islander) was significantly higher for children with higher compared to lower self-reported empathy.

Results from Nesdale et al.’s (2005) second experiment demonstrated that group norms alter the association between empathy and increased liking for outgroup members of a different ethnicity. A manipulation was introduced in which the children were induced to believe their group had a norm of inclusion (e.g., liking or wanting to work with members of the other team) or exclusion (e.g., disliking or avoiding members of the other team) for outgroup members. Liking the outgroup members differed significantly for children with high versus low empathy when the group norm was inclusion in that higher empathy was associated with higher liking and lower empathy was associated with lower liking. In contrast, liking of the outgroup member did not differ between children low and high in empathy if the group norm was exclusion.

Children’s dispositional empathy has been related to lower aggression toward outgroup members. Nesdale, Milliner, Duffy, and Griffiths (2009) found that 6- and 9-year olds-

empathy was negatively related with direct, but not indirect, aggressive intentions towards an outgroup member (also see Bryant, 1982).

Implications of Work on Empathy and Intergroup Relations

How can research on intergroup relations and empathy improve social problems such as prejudice and discrimination? Knowledge about stigmatized conditions (e.g., mental illness, HIV) may improve empathy, but actual contact is thought to be more effective than educational efforts. For example, Schachter et al. (2008) reviewed studies in which school-based interventions were used to combat stigma associated with mental health difficulties. The authors did not conduct a formal meta-analysis of this body of work, citing several scientific limitations of the literature. Nonetheless, they proposed that interventions making use of actual contact were more likely than interventions only utilizing education efforts to foster empathy, and thus produce more lasting change. Furthermore, in Pettigrew and Tropp's (2008) meta-analysis, they concluded that intergroup contact reduces prejudice and does so by increasing knowledge about the outgroup, reducing anxiety felt during intergroup interaction, and increasing empathy and perspective taking. Of these mediators, anxiety reduction and empathy/perspective taking had the largest effect sizes, whereas knowledge was a significant but weak mediator of the relation between intergroup contact and prejudice.

One intervention utilizing intergroup contact is the Jigsaw classroom. Aronson and colleagues (e.g., Aronson, Stephan, Sikes, Blaney, & Snapp, 1978) created this intervention in response to problems (e.g., fights, name-calling) arising in Texas schools following racial desegregation. Students are placed in multi-ethnic groups of six. A few times per week, each of the six children is responsible for learning a part of a lesson and teaching this segment of the lesson to the other five members of the group. When learning their respective segments of the lesson, children interact with students from other groups learning the same part of the lesson. Children are motivated to listen to the others teaching because they are responsible for learning the information and paying attention to the others is their only opportunity to gain access to the information. Aronson has concluded that the use of Jigsaw classrooms improves cooperation in competitive or hostile atmospheres, in part by increasing empathic role taking (Aronson, 2004).

In addition to intergroup contact, targeting perspective-taking skills may be a point of intervention worth pursuing when attempting to improve intergroup relations. Perspective taking likely facilitates understanding the impact that a situation has on another person and is expected to promote emotional empathy. Perspective taking often has been related to adults' and children's sympathy (for a review, see Eisenberg et al., 2006).

The Personalization Model is a model that incorporates facilitation of empathy through perspective taking in intergroup relations and is based on elements of Allport's Contact Hypothesis (1954). Ensari and Miller (2006) described the application of this model to reduce prejudice in the workplace, but it may operate successfully in other contexts. The model involves increasing the amount of personalized contact between members of different groups. Personalized contact involves three components: self-other comparison (e.g., similarities and differences), self-disclosure (to promote familiarity, closeness, and intimacy), and perspective taking. This model is thought to promote positive intergroup relations partly because the likelihood of perspective taking is expected to increase as a result of self-other comparison and self-disclosure, fostering a close connection during contact. In turn, perspective taking is expected to lead to empathy or sympathy for members of other groups (Ensari & Miller, 2006).

Data are needed to investigate the usefulness of this model

Lessons from the reviewed research may assist policy makers in improving social relations. For example, the reviewed literature could be used to inform implementation of a policy mandating that employees who have had prejudice, discrimination, or harassment-related grievances filed against them attend an educational class. In the instance of harassment based on mental illness, the employee might attend a class in which both a person with a mental illness (to provide personalized contact) and a professional lecturer (to educate) speak to the class. To foster a sense of similarity, the individual with a mental illness might introduce him/herself, highlighting some aspects to which the class will likely relate (e.g., family, hobbies, etc.). He/she could provide a description of illness onset and symptoms, daily life with the illness, difficulties it has caused, and the treatment process aimed at promoting perspective taking and sympathy. The professional could educate the class on biological and environmental causes of mental illness and discuss the course and treatment of mental illnesses so the class understands that people are not “responsible” for their mental illness and that it often can be treated. Implementation of the policy in human resource departments may improve attitudes about, and behavior toward, stigmatized people or outgroup members.

Conclusions

Based on our review of the literature, it appears that empathy and/or sympathy likely play a role in the degree to which individuals engage in other-oriented prosocial behavior and antisocial behavior. Moreover, empathy/sympathy appears to play some role in the degree to which individuals react negatively to outgroup members and stigmatize or discriminate against people viewed as different from the self. Thus, empathy and/or sympathy would seem to be logical mediators to examine in many interventions and preventative programs. Because heightened empathy may often result in personal distress (see Eisenberg et al., 1996), sympathy may be especially important to other-oriented prosocial behavior and for inducing a positive response to outgroup or stigmatized individuals. In contrast, because personal distress is experienced as aversive, individuals’ feelings of empathy, sympathy, and personal distress may all inhibit aggression.

The apparent role of empathy-related responding in a range of important aspects of human interaction and relationships highlights the importance of fostering empathy/sympathy in both children and adults. Despite the contribution of genetics to individual differences in empathy-related responding, there is a substantial body of literature that is consistent with the conclusion that both the general tone of parenting and specific parenting practices are related to the development of empathy and sympathy (see Eisenberg et al., 2006, for a review). Nonetheless, to our knowledge, there are few empirically validated programs for teaching parents to foster the development of their children’s empathy and sympathy. The development of such programs may have broad effects on the development of positive interpersonal behavior and attitudes.

As has been reviewed, researchers have designed interventions and prevention programs that likely capitalize on the positive effects of empathy and/or sympathy on social behavior. However, most intervention programs that have produced reductions in aggression or externalizing behavior (e.g., Izard et al., 2008), increases in prosocial behavior (e.g., Solomon et al., 1988), or better intergroup relationships (e.g., Pettigrew & Tropp, 2008) using techniques believed to induce empathy/sympathy have not explicitly assessed these variables (or have grouped empathy/sympathy with other constructs). Given that one or both of these reactions may mediate or moderate the usefulness of interventions, and initial findings of their importance, investigators would be wise to assess empathy-related responding in studies that involve procedures designed to foster empathy/sympathy and/or

an understanding of others' feelings and motives. Moreover, given the encouraging findings of Fonagy et al. (2009) for their intervention (see previous discussion) and the rather consistent relation between low empathy and bullying (e.g., Jolliffe & Farrington, 2006; Raskauskas et al., 2010), including cyberbullying (Schultze-Krumbholz & Scheithauer, 2009), fostering empathy and sympathy may be effective means of reducing bullying at schools.

Moreover, more attention to the possible negative effects of inducing personal distress is needed. It is quite possible that individuals who are emotionally reactive and prone to empathic distress are especially likely to respond to others' distress with personal distress and, consequently, to avoid or respond in negative rather than positive ways to person eliciting distress. High levels of empathic distress and personal distress may lead to exhaustion and burnout. For example, there is some evidence that highly empathic nurses tend to avoid their patients more than other nurses (Stotland, Mathews, Sherman, Hansson, & Richardson, 1978). Thus, the distinction between sympathy and personal distress is very important to consider when designing procedures to foster higher levels of empathy or sympathy.

Empathic responding may also have some other unanticipated negative effects. For example, Batson et al. (1995) found that adults who experienced high empathy for a member of their group allocated more resources to the target of empathy, even though it reduced the overall collective good of the group. If one person is favored by another due to empathy at a cost to fairness, this favoritism may result in the disruption of group functioning. Indeed, Van Lange and Joireman (2008) argued that empathy can sometimes be a threat to cooperative interaction, just as selfishness can. For example, as suggested by Batson et al. (1995), an employer may retain an ineffective employee for whom he or she feels sympathy to the detriment of the larger organization.

Another possibility is that members of an ingroup react negatively to a group member who, due to empathy or sympathy, favors a person from an outgroup. Thus, there are potential pitfalls to implementing procedures or interventions that target enhancing empathy, especially empathy toward some people at the potential expense of others.

A range of measures of empathy and sympathy might be useful in future research. For example, deficits in empathy have long been assumed to play a critical role in sexual offending but researchers are still attempting to develop a better understanding of how to enhance empathy/sympathy in interventions for juvenile and adult sexual offenders (Hunter et al., 2007). It is not clear if these offenders exhibit more global deficits in empathy (Varker, Devilly, Ward, & Beech, 2008). Thus, in the future, investigators should further clarify the types of empathy deficits (i.e., general, victim, and victim-specific) characteristic of sexual offenders. Addressing this issue would hasten the development of treatment programs specifically targeted at individual offenders' needs. Similarly, bullies may lack empathy/sympathy for certain victims but not for all individuals, especially those they consider part of their ingroup; nonetheless, global empathy or sympathy has been assessed in most studies of bullying and aggression. The distinction between empathy for ingroup and outgroup members seen in some of the work on intergroup relationships is important and may be relevant to research on prosocial and antisocial behavior.

The distinction between situationally induced empathy/sympathy and dispositional empathy/sympathy may also be an important one to highlight in future research. On the one hand, dispositional measures of empathy, sympathy, or personal distress are usually obtained from self-reports or individuals who view the person interacting with mostly ingroup members (teachers may be an exception). Thus, dispositional measures may provide limited

information about how people interact with people who are not family, friends, or at least acquaintances—a definite limitation. On the positive side, however, dispositional sympathy has been associated with higher-level and other-oriented moral reasoning (see Eisenberg et al., 2006), indicating that it likely partly reflects individuals' interpersonally relevant values. On the other hand, situational measures of empathy, sympathy, or personal distress can provide information on the limits of individuals' dispositional empathy-related responding and regarding individuals and contexts that promote and hinder empathic and sympathetic responding toward others.

Given findings indicating the importance of empathy deficits in individuals with callous and psychopathic traits, it is important to increase the practice of differentiating among the various types of individuals who exhibit antisocial behavior. Empathy training may be effective for some groups of individuals but not others. In addition, attention to the various subgroups of antisocial youths and adults is likely to facilitate replication of findings when studying the neurobiological correlates involved in the association of empathy-related responding and aggressive/antisocial behavior. Knowledge about the neurobiological impairments in individuals who lack of empathy may, in turn, improve the development of interventions and prevention programs focused on decreasing antisocial behavior and promoting prosocial behavior toward a broad range of individuals.

In summary, empathy-related responding is a fundamental and basic aspect of human functioning that has broad implications for the quality of human interactions. Thus, in our view, it merits a central role in theory, basic research, and interventions relevant to how human beings treat one another. However, empathy-related responding is a complex construct and a nuanced understanding of its possible manifestations and effects is advisable.

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