

# Does Empathy Trigger Only Altruistic Motivation? How About Selflessness or Justice?

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A key question in research on empathy is what interpersonal motivations might be activated by empathy. Does empathy promote only a concern with other's outcomes ("altruism"), as well as decreased concern with one's own outcomes ("selflessness"), or an increased concern with equality in outcomes ("egalitarianism")? These interpersonal motivations were assessed with a series of experimental games, and our manipulations of empathy paralleled earlier research on the empathy-altruism model. Participants received a (fictitious) note from another person outlining that he or she is coping with the anticipated loss of his or her father in conditions that emphasized taking the other's perspective or an objective perspective (high and low empathy), whereas another group of participants received no note (no empathy). Consistent with our hypotheses, results revealed that a concern with another's well-being (altruism) was greater in the two empathy conditions than in the no-empathy condition. Further, the authors observed no effect of empathy on selfishness or egalitarianism, two motivations that were substantially present independent of empathy. Thus, the findings suggest that empathy adds altruistic motivation to already existing selfish and egalitarian motivation.

*Keywords:* empathy, altruism, egalitarianism, self-interest, interpersonal orientation

When a young child watches the movie *Bambi*, the child is very likely to share in many ways the feelings ascribed to the lovely deer. The child probably feels sad, experiences distress, and perhaps even fear—but also realizes that it is Bambi's mother, not his or her own mother that was killed. It has often been suggested that empathy is key to understanding social interaction. For example, if the child could help Bambi, for example, by comforting Bambi by donating some of his or her more precious toys, the child may well be able and willing to do so. Indeed, there is an impressive program of research by Batson and colleagues, which suggests that people are quite prepared to help decrease the suffering and distress in others, often at a considerable cost to themselves, at least when empathy is strongly activated (e.g., Batson, 1991, 1998).

A classic case in point is the Elaine example described in research conducted by Batson, Duncan, Ackerman, Buckley, and Birch (1981). In their experiment, a rigged lottery was held that determined that Elaine (actually a confederate) had to work on a 10-trial task in which she received random electrical shocks on each trial. When the assistant asked whether she was afraid of receiving shocks, Elaine confessed that in the past she had fallen

in an electric fence. The assistant said that she thought that Elaine should stop, but Elaine insisted that she would be all right and wanted to go on. At this point, the assistant decided to check with the experimenter about the possibility of having the observer (i.e., participant) take Elaine's place as the Worker. The key question was whether participants, who watched Elaine receiving the shocks on close circuit TV, would be willing to trade places with her as a way of helping her to avoid further suffering. As in turns out, nearly all participants traded places at least when they heard that Elaine's values and interests were similar to their own, which they assumed to elicit high levels of empathy. However, they escaped from the situation when they heard that Elaine's values and interests differed from their own, which they assumed to elicit low levels of empathy.

Along with the several experiments conducted since then, using complementary manipulations of empathy, there is little doubt that empathy enhances prosocial behavior. Trading places and receiving shocks themselves is a personally costly choice that is very effective at reducing the other's suffering. However, what might be the broader interpersonal motivations that are activated when we empathize with others? Might empathy affect our motivational state, even if we are not in a situation in which we can effectively help? That is, can empathy activate altruistic motivation (and other motivations) in situations that do not call for helping?

The major purpose of the present research is to examine the interpersonal motivations or orientations that might be activated by empathy, thereby focusing on the activation of altruism, selflessness, and egalitarianism. In particular, how would we allocate outcomes between the self and the other with whom we empathize? Does empathy affect concern with other's outcomes ("altruism"), a concern with one's own outcomes (selfishness vs. "selflessness"), or a concern with equality in outcomes ("egalitarianism")? Each of the orientations may underlie prosocial behav-

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ior. Indeed, there is good evidence in support of the existence of these orientations, in that the ways in which we seek to enhance outcomes for others, outcomes for ourselves, and equality in outcomes, explain much of human behavior and strategic interaction (e.g., Fehr & Schmidt, 1999; Van Lange, 1999), including various forms of prosocial behavior (e.g., generosity, helping) and antisocial behavior (e.g., competition, retaliation; for a recent overview, see Van Lange, De Cremer, Van Dijk, & Van Vugt, 2007). At the same time, there is virtually no research examining how empathy might affect altruism, selflessness (vs. selfishness), and egalitarianism.

### Empathy: Conceptualization and Intrapersonal Process

Because empathy is defined in so many ways, it is useful to begin with defining empathy, which is inspired by recent work of De Vignemont and Singer (2006, p. 435–436) who conceptualize empathy as (a) an affective state (b) that is elicited by the observation or imagination of another person's affective state. They also add that one (c) should know that the other person is the source of one's own affective state (for similar definitions, see, e.g., Singer & Fehr, 2005). The conceptualization by De Vignemont and Singer indicates that empathy is an affective state, and that observation *and* imagination can activate empathy. As such, empathy is different from perspective-taking alone (which is not necessarily an affective state—but more of a cognitive state) or emotional contagion alone (when people do not necessarily make a difference between self and others).<sup>1</sup> Later, we see that the definition is also important to the issue whether empathy may activate prosocial motivation even if instructions do not promote empathic activity.

The reference to “affective state” is also important, in that it defines empathy as an emotion that might be activated in a variety of different ways. It can be a product of controlled, thoughtful processes, as well as largely uncontrolled, automatic processes. Indeed, recent evidence suggests that observing another's actions affects areas of the brain that are also involved in the “preparation” of our own actions, and observations of another's pain may involve brain activity that is similar to our own pain, or experiences thereof (e.g., Gallese & Goldman, 1998; Preston & De Waal, 2002). These lines of research add credence to the notion that empathy is by no means merely a product of controlled, thoughtful processes—but perhaps, just as often (if not more often), empathy may be a product of automatic processes, requiring almost no thought at all. That is, although contextual influences might be important (e.g., the story line in *Bambi*, the way in which it is bad news is conveyed), we suggest that empathy can often be activated in a relatively automatic manner. Once the child is involved in the film *Bambi*, the child has virtually no choice but to empathize with *Bambi*.

### What Empathy May Trigger? Altruism, Selflessness, and Egalitarianism

What are the interpersonal orientations that could theoretically underlie “prosocial behavior?” Following past research and theorizing on the integrative model of social value orientation, we suggest that interpersonal orientations could be defined in terms of how people evaluate outcomes for self, outcomes for others, and equality in outcomes (Van Lange, 1999; Van Lange, De Cremer et

al., 2007). These are often referred to as (a) *selfishness* (or *individualism*), tendencies toward benefiting the self, (b) *altruism*, tendencies toward benefiting another person, and (c) *egalitarianism*, tendencies toward enhancing equality in outcomes for self and another person (Van Lange, 1999). Research on such social value orientations has revealed that selfishness and egalitarianism are important orientations in various interpersonal settings, whereas “outcomes for other” is assumed to be important as part of enhancing *joint* outcomes (for a recent overview, see Van Lange, De Cremer et al., 2007). The key question is: what interpersonal orientations might be activated by empathy? Although numerous models are possible, and even plausible, we discuss three relatively parsimonious models that suggest that empathy activates altruism only (Model 1), empathy activates altruism and selflessness (Model 2), or that empathy activates altruism and egalitarianism (Model 3).

#### *Model 1: Empathy Activates Only Altruism*

This model states that empathy activates only one interpersonal motivation: altruism. Theoretically, this model makes sense, because empathy is an *other-focused* emotion. As alluded to earlier, there is an impressive history of research suggesting that empathy, when activated, causes people to act in ways to benefit the other, such as receiving electric shocks for the other (for an overview, see Batson, 1991, 1998). Specifically, this line of research has revealed that under conditions of high empathy people want to help the other at a considerable cost to self even if they could simply leave the situation in an effort to reduce their own distress. These findings have often been interpreted in terms of empathy causing increased altruistic motivation, which in turn causes helping behavior. Note, however, that alternative explanations are still possible (such as, e.g., keeping a positive self-image intact), and note that the activation of altruism does not necessarily (or logically) mean that it replaces other interpersonal motivations.

#### *Model 2: Altruism Activates Altruism and Selflessness*

This model assumes that the activation of empathy can activate other interpersonal motivations as well, in particular, activating selflessness (or de-activating selfishness). How so? One could argue that people become less self-interested when empathy is activated, for at least two reasons. First, because another person in distress or need captures the primary attention, it is possible that the focus is no longer on the self. For example, a child watching the episode in which *Bambi* loses his mother may well “forget about the self”—such that some basic self-relevant needs and desires (primitive needs such as thirst or hunger or higher-order needs or desires, such as the need for social approval) may be inactive and irrelevant. Second, in everyday life helping another person in distress is often associated with some costs to self—in terms of time, effort, or money. Through repeated experience,

<sup>1</sup> De Vignemont and Singer (2006) also suggest that the own affective state should be isomorphic to the other's affective state, an issue that raises several questions as to the specifics of isomorphism. We do agree, however, that there should be some basic similarity in affective states, for example, in valence, to avoid addressing complementary emotions, such as sympathy.

empathy may become associated with not only benefiting others but also with costs to oneself. For example, it is argued that in the context of ongoing relationships (parents or close partners) people may become *so strongly* other-oriented that they experience many acts of caring and helping as no cost to self at all (e.g., Aron, Aron, Tudor, & Nelson, 1991). Thus, increases in altruistic motivation in combination with decreasing selfishness might underlie the prosocial motivation that is needed to engage in (costly) prosocial behavior.

### *Model 3: Empathy Activates Altruism and Egalitarianism*

This model assumes that empathy activates both altruistic motivation and egalitarian motivation. Why might egalitarianism be activated? Generally speaking, people may help others out of an inequality aversion or restoration of fairness, because helping often serves not only to help reduce the suffering and pain that others have but also the inequality or unfairness that people observe (e.g., Fehr & Schmidt, 1999; Van Lange, 1999). A concern with equality may even provide an alternative explanation for some of the studies of Batson and colleagues. The classic study on Elaine may again be illustrative (Batson et al., 1981). It is possible that the prosocial acts in the high-empathy (or high-similarity) condition could have been triggered by altruism as well as egalitarianism. After all, out of a sense of fairness, participants may seek to compensate for the bad luck that Elaine taking a “fair share” in receiving the shocks—by receiving some shocks themselves, and not only be a passive observer. Outside of the laboratory, it is possible that various empathy-triggered donations are a result of not only altruistic motivation (to help the poor) but also egalitarianism—to help minimize the unfairness and injustice in the world. For example, a recent study revealed that relative to people with individualistic or competitive orientations, people with prosocial orientations (who tend to enhance joint outcomes and equality in outcomes) are more likely to donate to those causes that help the poor and the ill rather than to causes that are more strongly linked to their immediate self-interest (Van Lange, Bekkers, Schuyt, & Van Vugt, 2007).

### Research Design and Hypotheses

The major purpose of the present research is to evaluate three models that may account for the assumed relationship between empathy and prosocial motivation. Of course, in principle several models could be advanced, including ones that assume that empathy triggers only selflessness, or only egalitarianism. Moreover, it is possible that more than two motivations should be considered to fully understand the workings of empathy. However, for reasons of parsimony, we confined ourselves to these three models.

All three models predicted that empathy promotes altruism. Clearly, the link between empathy and altruism has been subject to intense debate, with some arguing that empathy activates altruism (e.g., Batson, 1991, 1997, 1998; Dovidio, Allen, & Schroeder, 1990; Eisenberg, 1986) and others arguing that other explanations are more viable, such as relief of negative states (the executing of prosocial behavior reduces personal distress experienced through empathy) or the merging of self and other (a feeling of “oneness” Cialdini, Brown, Lewis, Luce, & Neuberg, 1997; Neuberg, Cialdini, Brown, Luce, Sagarin, & Lewis, 1997). The studies that have

been conducted on the empathy-altruism model have nearly all examined helping situations that reduce directly the cause of empathy. For example, trading electric shocks helps reduce the other’s distress (and thereby any own distress caused through observation or imagination). However, we assumed that empathy might trigger altruistic motivation, as a more general motivational state. This raises the possibility that altruistic motivation might be activated even when effective helping is not feasible. Indeed, some research by Batson and colleagues suggests that this might be true. Their findings revealed that high empathy can promote cooperative behavior in a single-trial prisoner’s dilemma—that is, when cooperation could not be explained in terms of strategic, long-term orientation (Batson & Moran, 1999). Interestingly, high levels of cooperation (after high-empathy inducement) were even observed when the other had not cooperated in the first and only trial (Batson & Ahmad, 2001). Although such findings are suggestive of the idea that empathy might be able to trigger altruistic motivation, the evidence is still indirect. After all, by making a cooperative choice, the person actually gives money to the other person, which may help to decrease one’s own distress by decreasing the contagious distress of the other person. In addition, this research does not speak to the issue of whether empathy might also trigger only altruism—and not selflessness or egalitarianism.

Hence, the present research extends past research by Batson and colleagues (Baton & Ahmad, 2001; Batson & Moran, 1999) in at least two important respects. First, although prisoner’s dilemmas and related experimental games are very important tools to examine cooperation, they often confound various motivations. Even in single-trial prisoner’s dilemmas, behavior may often be accounted for by an increase not only in altruism, but also in selflessness or egalitarianism (at least in the Batson and Moran study). As we discuss below, we administered decomposed games that historically were designed to assess independent motivational states underlying cooperation in prisoner’s dilemmas (see Messick & McClintock, 1968; see also Van Lange, Bekkers et al., 2007).

Second, unlike the studies by Batson and colleagues, the present goal was to study the “triggering” or activation of motivational states in a situation in which altruistic choices did not directly help reduce the other’s pain or suffering. Therefore, unlike research by Batson and colleagues, the other person did not receive the actual benefits (such as money from a cooperative choice) that might be expected to enhance the other’s mood (or decrease the other’s suffering or pain). In addition, unlike research by Batson and colleagues, motivational states were assessed in a manner completely independent of the other person’s choices. And finally, rather than measuring a single behavior in a single-trial dilemma situation, we assessed the motivational states using a variety of decomposed games, which enhances the reliability of the measurement of motivational states.

At the same time, we acknowledge that, for other reasons that the ones outline above, the measurement of motivational orientations might have benefited from using a real social dilemma involving actual money. However, we should note that responses to the decomposed game measure has been demonstrated to be predictive of behavior across a wide variety of experimental games—single-trial, iterated social dilemmas, ultimatum games—involving hypothetical money or real money, using samples from different countries (e.g., Van Lange, De Cremer et al., 2007), predictive of actual behavior outside of the laboratory involving

investment of time or money (e.g., McClintock & Allison, 1989), and predictive of political voting (Van Lange, Bekkers, Chirumbolo, & Leone, 2008).

For those reasons, we sought to assess the motivational states (altruism, selfishness, and egalitarianism) in an orthogonal manner, across a variety of hypothetical dilemma situations. Specifically, we used a modified version of the Ring Measure of Social Values (Liebrand, Jansen, Rijken, & Suhre, 1986) with which we could orthogonally assess the weights assigned to outcomes for self (i.e., degree of selfishness vs. selflessness), outcomes for other (i.e., degree of altruistic motivation), and equality in outcomes (i.e., degree of egalitarian motivation, for initial use, see Van Lange, 1999). In this instrument, outcomes are presented in terms of desirable units, money, or Euros, and participants need to make a choice between two options that systematically vary in terms of quality of outcomes for self, quality of outcomes for other, and equality in outcomes. We should also note that this methodology itself does not tend to influence the participant's choices in a particular manner by assessing *motivation* (or motivational orientations) rather than behavior, and by using a relatively "abstract" format. For example, the other is typically an unknown other whom they have not met and never will knowingly meet in the future. In addition, in this instrument, the choices do not have any direct influence on the other person, in that they cannot directly reduce or eliminate the other's pain or suffering. In light of these features (and the fact that empathy has never been studied with this instrument), past research using this methodology typically reveals that tendencies toward altruistic motivation are not very strong (see Van Lange, 1999; see also Liebrand et al., 1986; McClintock & Liebrand, 1988). As such, we consider it a suitable instrument for assessing preferences regarding other's outcomes, the own outcomes, and equality in outcomes—that is, how such motivations might be triggered, even if people cannot directly translate such motivations into actions that are in fact able to reduce suffering.

The present research uses a manipulation of empathy that is quite similar to that used in previous research by Batson and colleagues (e.g., Batson & Ahmad, 2001; Batson & Moran, 1999). By exchanging notes participants will be exposed to a very sad personal event that happened recently to another participant. Although we use a different story (a very ill father rather than, e.g., a friend ending a relationship), we use identical instructions for perspective-taking (emphasizing perspective-taking vs. emphasizing objectivity and detachment in reading the notes). In past research by Batson and colleagues, perspective-taking seems essential for activating prosocial behavior (e.g., Batson & Ahmad, 2001; Batson & Moran, 1999). However, in our own past research (e.g., Rumble, Van Lange, & Parks, 2008; Veerbeek, 2005) we have seen, at least for the stories we used (that may be more intense than the ones used by Batson and colleagues), that the subjective levels of empathy tend to be about equally high in the two conditions.

Thus, although we examine empathy under both conditions (that Batson refers to low and high empathy), we did not anticipate substantial differences between the two conditions. Instead, we assumed that unlike the no-empathy condition, both empathy conditions would activate experiences of empathy, and hypothesized that empathy enhances the weight assigned to other's outcomes (altruistic motivation). Whether empathy might also trigger self-

lessness or egalitarianism was considered an exploratory part of this research.

## Method

### *Participants and Experimental Design*

Eighty-four participants (34 men, 50 women) with an average age of 21 years took part in the present research. They were recruited at the campus of the Vrije Universiteit at Amsterdam by printed flyers. Each participant was paid 3.50 euros in exchange for participation (at the time the study was conducted, €3.50 equaled \$4.00 in American currency). It appeared that three participants did not complete the experiment in 60 minutes or less, and so their data were not included in the analyses, leaving a sample of 81 participants.

The experiment used a one-variable design, manipulating empathy using two instructions (instructing empathy vs. instructing objectivity, which we refer to as high and low empathy) and comparing it to a no-empathy condition. The primary dependent variables were the weight assigned to outcomes for other (for assessing altruistic motivation), the weight assigned to outcomes for self (for assessing selfish vs. selfless motivation), and the weight assigned to equality in outcomes (for assessing egalitarian motivation).

### *Procedure*

Seven to 15 participants attended each research session. On arrival, the participants were welcomed and escorted to separate cubicles. The entire experiment was conducted on PC's, using a program written in Macromedia Authorware.

*Manipulating empathy.* We compared no-empathy with empathy (using two instructions, which we refer to low-empathy and high-empathy, as in past research by Batson and colleagues; Batson & Ahmad, 2001). In all three conditions, instructions noted that there would be no face-to-face communication with any of the other participants. Participants in the empathy conditions, however, received instructions that said that, although face-to-face contact was not allowed, the participant and the other person with whom you would be paired during this experiment would be able to get to know each other through writing a note. Next, we noted that because the other person had arrived somewhat earlier, the other had already completed this note. Specifically, the instructions read: "The other person wrote a note before he or she was informed about the experimental task. Also, please realize that the note is strictly confidential, and that only you will read this note." To manipulate reading instructions, we noted that in reading this note it is important to keep one goal in mind, using instructions that were identical to those used by Batson and Moran (1999; and Batson & Ahmad, 2001). In the low-empathy condition the instructions read "While you are reading the note, try to take an objective perspective toward what is described. Try not to get caught up in how the other feels; just remain objective and detached." Instructions for the high-empathy condition read: "... try to imagine how the other person feels about what is described. Try to imagine how it has affected his or her life and how he or she feels as a result."

Thereafter, the participants were asked to open the door in his or her cubicle to receive an envelope with the note from the other person. The note said:

“I would have liked to tell you something interesting or fun. But I am afraid that at this moment the only thing I can think of is my father. It is a little strange to tell this to somebody that I don’t know, but my father heard not long ago that he has a tumor in his brain and that he cannot recover from it. The thought that I am going to lose my father is just devastating. I cannot live without him and I cannot even imagine what it is like without him being around.”

*Impressions and feelings questionnaire.* After reading the note and waiting for 1 or 2 minutes, participants completed a brief questionnaire that contained four items that are assessed self-reported empathy: compassion, concerned, tender, and moved (in Dutch, “medelijden,” “bezorgdheid,” “begaan zijn met,” and “ontroering,” respectively). (These are four of six items that Batson and Ahmed [2001] used. We did not include the adjectives “sympathetic” and “warm” in the scale, because these concepts may have somewhat different connotations in Dutch language or culture, and seem somewhat less directly related to empathy). The list also included a few other emotions that served as a filler (e.g., anger), and to distract them from empathy-related emotions. The four-item scale exhibited good internal consistency ( $\alpha = .91$ ). After filling out the questionnaire, participants immediately proceeded with the Ring Measure, and did not write a note themselves (which was further explained in the debriefing after the experimental session, for similar procedures, see Batson & Ahmed, 2001).

*The ring measure of social values.* This instrument consists of 24 decomposed games, and involves choices between two alternatives that represent differing combinations of outcomes for self and another person. These outcomes are defined in terms of imaginary amounts of money (i.e., Euros) and involve positive outcomes (i.e., gains) as well as negative outcomes (i.e., losses; for more information about the original version of the Ring Measure of Social Values, see Liebrand et al., 1986). However, the current version of the ring measure of social value includes only positive outcomes (see Van Lange, 1999). The reason is that the outcomes for *both* self and other should either be positive or negative to provide a fair assessment of the weight participants assigned to equality in outcomes. That is, equality in outcomes becomes virtually irrelevant when outcomes for self are positive and outcomes for other are negative (or vice versa), because such a mixture of positive and negative outcomes represent very large discrepancies between outcomes for self and outcomes for other in both options. Thus, we wanted to avoid a mixture of positive and negative outcomes. Second, we examined only positive outcomes (rather than only negative outcomes) because making comparisons among negative outcomes—especially in numerical form—is somewhat more complex.

The 24 pairs of self-other outcome combinations were sampled from a circle in the own/other outcome plane, defined by two orthogonal dimensions, representing outcomes for self (which vary from €5.00 to €35.00), and outcomes for other (which also vary from €5.00 to €35.00). The radius of the circle was €15.00, and the center of the circle coincided with the origin of the own/other outcome plane (i.e., the point representing €20.00 for self and €20.00 for the other). Each decomposed game involved a choice

between two equidistant own/other outcome distributions that were located next to each other on the circle. An example is the choice between alternative A: €34.50 for self and €23.90 for other, and alternative B: €35.00 for self and €20.00 for other.

Based on these 24 choices, we calculated the total amount of money allocated to self and the total amount of money allocated to the other. For both the self and the other, the sum of monetary outcomes across the 24 choices can vary from €450.00 to €510.00. For example, if one’s choices consistently minimize outcomes for other, the other’s outcomes would be €450.00; conversely, if one’s choices consistently maximize the outcomes for other, the other’s outcomes would be €510.00. Based on these amounts of money allocated to oneself and the other, one can calculate (a) the weight assigned to outcomes for self, and (b) the weight assigned to outcomes for other. That is, the total outcomes allocated to oneself and the other (from €450.00 to €510.00) are translated into weights varying from  $-1.00$  to  $+1.00$ . For example, if one allocates €510.00 to the other, then the weight assigned to outcomes for other would be 1.00; if one allocates €450.00 to the other, then the weight assigned to outcomes for other would be  $-1.00$ ; if one allocates €480.00 to the other (i.e., the average of €450.00 and €510.00), then the weight assigned to outcomes for other would be 0.00. The weight assigned to outcomes for self were calculated in precisely the same way.

We calculated the weight assigned to equality in outcomes in a similar manner. Across the 24 choices, the sum of absolute differences between own and other’s outcomes can vary from €280.00 to €364.80. These absolute differences were translated into weights varying from  $-1.00$  to  $+1.00$ , for example, if the absolute difference between own and other’s outcomes is €280.00, then the weight assigned to equality in outcomes would be  $+1.00$  (i.e., one seeks to minimize differences between own and other’s outcomes, irrespective of relative advantage for self or the other). If the absolute difference is €364.80, then the weight assigned to equality in outcomes would be  $-1.00$  (i.e., one seeks to maximize differences between own and other’s outcomes, irrespective of relative advantage for self or the other). If the absolute difference is €322.40 (i.e., the average of these extreme values), then the weight assigned to equality in outcomes would be 0.00 (i.e., the participant is indifferent to differences between own and other’s outcomes, irrespective of relative advantage for self or the other).

It is useful to illustrate these specific orientations in a more concrete manner by linking it to the integrative model of social value orientation (Van Lange, 1999), which defined outcome transformations in terms of the weight assigned to outcomes for self ( $W_1$ ), outcomes for other ( $W_2$ ), and equality in outcomes ( $W_3$ ). A perfectly cooperative orientation (i.e., enhancing joint outcomes), results in the following weights:  $W_1 = +.707$ ,  $W_2 = +.707$ , and  $W_3 = 0.00$ . A perfectly individualistic orientation (i.e., enhancing only one’s own outcomes), results in the following weights:  $W_1 = +1.00$ ,  $W_2 = 0.00$ , and  $W_3 = 0.00$ . A perfectly competitive orientation (i.e., enhancing relative advantage over the other’s outcomes) results in the following weights:  $W_1 = +.707$ ,  $W_2 = -.707$ ,  $W_3 = 0.00$ . In addition, an orientation that is exclusively guided by equality in outcomes (i.e., minimizing absolute differences between outcomes for self and other) yields the following weights:  $W_1 = 0.00$ ,  $W_2 = 0.00$ , and  $W_3 = 1.00$ . Thus, the three orientations are measured in an orthogonal manner. In the analysis, we multiplied the weights by 100 so as to be able to

report precise means in the results section (e.g.,  $M = 30.12$  rather than  $M = 0.30$ ).

The experimental session concluded with an extended debriefing about the goals of this research, an explanation of why we used deception, references to past research, and payment. We should also note that the experimenters did not observe any form of suspicion regarding the note during or after the experimental session (e.g., no participant spontaneously raised the issue after the experiment).

## Results

### *Manipulation Checks*

A one-way analysis of variance revealed a significant main effect for condition on reported empathy,  $F(2, 78) = 69.42, p < .001$ . As intended, levels of reported empathy for the other was significantly lower in the no-empathy condition,  $M = 3.09, SD = 1.22$ , than in both empathy conditions, the low empathy condition,  $M = 5.86, SD = 0.69$ , and in the high empathy condition,  $M = 5.60, SD = 0.86$ . Subsequent planned comparison analysis revealed a significant difference between the no empathy and the low and high empathy conditions,  $F(1, 78) = 137.78, p < .001$ , but no significant differences between the two low and high empathy condition,  $F(1, 78) = 1.06, ns$ . Thus, the manipulation of empathy caused the intended consequences. It is also noteworthy that instruction (discourage vs. encourage empathy) caused no significant differences between the low and high empathy condition. This is consistent with the argument that empathy can be promoted even if instructions emphasize detachment and objectivity, suggesting that empathy can be activated even under discouraging circumstances.

### *Effects of Empathy on Altruism, Selflessness, and Egalitarianism*

As noted earlier, the Ring Measure of Social Values allows us to assess the weights that participants assign to outcome for other (altruism), outcomes for self (selfishness vs. selflessness), and equality in outcomes (egalitarianism). We hypothesized that the activation of empathy should lead to increases in the weight assigned to others (altruistic motivation); and we explored whether it would affect the weights assigned to outcomes for self (relevant to selflessness), and equality in outcomes (egalitarianism).

*Outcomes for other.* A one-way ANOVA on the weight assigned to other's outcomes revealed a significant main effect for empathy condition,  $F(2, 78) = 3.65, p = .03$ , indicating that participants assigned a smaller weight to other's outcomes in the no-empathy condition,  $M = -2.03, SD = 34.18$ , than in the low and high empathy conditions ( $M_s = 22.35$  and  $15.56, SD_s = 31.95$  and  $35.63$ , respectively). Planned comparisons revealed a significant contrast between no empathy versus low and high empathy,  $F(1, 78) = 6.77, p = .011$ , whereas the differences between the low and high empathy conditions were not significant,  $F(1, 78) = 0.54, ns$ . These findings are consistent with the hypothesis arguing that empathy activates altruistic motivation.<sup>2</sup>

*Outcomes for self.* A one-way ANOVA on the weight assigned to own outcomes revealed to significant main effect for condition,  $F(2, 78) = 0.62, ns$ , and none of the contrasts were

significant,  $F(1, 78) = 0.16$  and  $1.07$ , both  $p_s < .30$ . The weights assigned to own outcomes were not much different per condition:  $M_s = 58.99, 57.50$ , and  $65.64; SD_s = 28.93, 26.72$ , and  $30.75$ , in the no-empathy, low-empathy, and high-empathy conditions, respectively.

*Equality in outcomes.* A one-way ANOVA on the weight attached to equality in outcomes revealed no significant main effect for condition,  $F(2, 78) = 1.83, ns$ . The weight assigned to equality in outcomes was somewhat greater in the no-empathy condition,  $M = 43.16, SD = 32.11$ , than in the low empathy,  $M = 24.87, SD = 33.78$ , or high empathy,  $M = 35.43, SD = 38.37$ , conditions. However, neither the contrast of no-empathy versus low and high empathy,  $F(1, 78) = 2.42, ns$ , nor the contrast between low and high empathy,  $F(1, 78) = 1.23, ns$ , was significant.

Thus, empathy activates an increased weight assigned to other's outcomes (altruistic motivation), but does not significantly affect the weight assigned to own outcomes (selfishness vs. selflessness), or the weight assigned to equality in outcomes.

## Discussion

The major purpose of the present research was to examine the interpersonal motivations that might be triggered by empathy. The present findings were consistent with our primary hypothesis predicting that empathy would activate altruistic motivation. Further, although there are reasons to suggest that empathy might also trigger selflessness or egalitarianism, we did not find any evidence for the empathy-related activation of these motivations. Thus, the findings were in line with the model that is the simplest of all: Empathy only triggers altruistic motivation. The findings are of great relevance to our understanding of empathy, in particular, for understanding how empathy might shape interpersonal motivations. Below we outline some major implications of this research, and briefly discuss strengths and limitations, along with avenues for future research.

To begin with, as alluded to earlier, there has been a good deal of debate about the motivations that empathy might trigger. According to Batson's empathy-altruism model (Batson, 1991, 1998) empathy should activate altruistic motivation. In fact, in his strong

<sup>2</sup> We explored whether the effects of manipulated empathy might be mediated by reported empathy. Obviously, this analysis can only provide preliminary evidence, in that the scale was primarily included as a check on the manipulation, and because of the relatively small sample size. Nevertheless, the results are informative. First, recall that we observed a significant main effect of condition—attributable to the contrast of no-empathy condition versus low and high empathy conditions—for both reported empathy and the weight assigned to other's outcomes. Second, we observed a significant association between reported empathy, the presumed mediator, and the weight assigned to other's outcomes, the dependent variable,  $r(81) = .31, p = .005$ . Third, we conducted an analysis of variance on the weight assigned to other's outcomes in which we included reported empathy as a covariate. This analysis revealed that the main effect for condition dropped to nonsignificance,  $F(1, 77) = 0.30, ns$ , as did the contrast of no-empathy versus low and high empathy,  $F(1, 77) = 0.31, ns$ . However, the decrease in the variance accounted for by that contrast was only marginally significant, Sobel test,  $Z = 1.26, p = .10$  (one-tailed). Thus, there is only suggestive evidence that reported empathy mediates the effects of manipulated empathy on the weight assigned to other's outcomes.

version of the empathy-altruism hypothesis, Batson (1991, p. 87) goes even one step further by arguing that “. . . not only that empathic emotion evokes altruistic motivation, but also that all motivation to help evoked by empathy is altruistic.” As such, the present findings are consistent not only with Model 1, but also with the strong version of the empathy-altruism hypothesis, advanced by Batson (1991). After all, our findings revealed that empathy activated altruistic motivation, and no selfless or egalitarian motivation (i.e., assigning greater weight to outcomes for another person when empathy was activated—but no smaller weight to outcomes for self, and no greater weight to equality in outcomes). We consider this quite striking, especially when taking into account that our paradigm sought to illuminate the effects of empathy on the activation of altruism (and selflessness and egalitarianism) in a context in which they were not able to effectively provide help.

It is interesting to note that the concepts of “altruism” and “selflessness” are often treated as similar, if not the same. The assumption seems to be that altruistic motivation should be selfless to qualify as altruistic (see Cialdini et al., 1997). However, independent of one’s specific definition of altruism, one could distinguish between tendencies toward enhancing benefits for self and tendencies toward enhancing benefits for other, conceptually and methodologically. The present findings revealed that while self-interest is high in all three conditions, empathy does not affect the weight assigned to one’s own outcomes. In that sense, the experience of empathy seems to *add* the motivation of altruism to the selfish motivation that is already there. In addition, given that egalitarian motivation was also quite high across the three conditions, it is perhaps most appropriate to conclude that empathy is able to *add* altruistic motivation to selfishness and egalitarianism, without directly affecting the latter two motivations.

Such findings are important because they may help providing some tentative insight into the controversy as to whether “altruism” exists or not. If we assume that self-interest is almost always activated, as well as egalitarianism (albeit to a smaller degree), then it becomes understandable that altruism and selfishness can operate in concert—that is, these motivations can both be active at the same time. It is true that Batson’s (1997, 1998) model addresses motivation (not behavior), and the present research suggests that although empathy activates altruistic motivation, it does not reduce (or enhance) selfish motivation. This is consistent with past research suggesting that the weight assigned to outcomes for self almost always tend to be high, and does not seem to be affected much by experimental variations and does seem quite stable across different samples (see Van Lange, 1999; Van Lange, Otten, De Bruin, & Joireman, 1997). The present findings add to this theorizing by revealing that egalitarianism may also be active for most people under relatively neutral circumstances. This is interesting because it suggests that self-interest and egalitarianism tend to be orientations that do not need to be activated by the situational forces. Such reasoning may explain why self-interest, as well as fairness and justice, seem to operate as a default or baseline decision rule for allocation behavior (cf. Allison & Messick, 1990). Indeed, although self-interest and egalitarianism may to some degree serve as “defaults,” altruistic motivation seems to need the external forces such as empathy-related activation through observation or imagination.

Second, the present findings are in line with the idea that empathy is an *other-focused* emotion, in that the “other” is causal in two respects: (a) Empathy is an affective state that is rooted in observing or imagining a similar affective state in another person, and (b) empathy is an affective state that people may act upon to help the other or provide benefits for the other. The latter claim had received a fair amount of support in the context of situations that tended to call for helping. As such, it was interesting to see that empathy triggers altruism in a “neutral” situation that is substantially different from the helping contexts examined in most past research (see Batson, 1991, 1998). This provides some tentative evidence in support of the *generality* of the link between empathy and altruism. We add “tentative” because we should acknowledge it is nearly impossible to examine a “neutral” situation that yields results that would generalize to any situation in which empathy might matter. For example, one might raise questions about the strength of altruistic motivation as assessed with a series of decomposed games. Although there is evidence that such responses affect behaviors in experimental games (involving money or not), sacrifices in ongoing relationships, and self-reported donations, it is still important to obtain evidence that empathy inductions trigger altruistic motivation, which in turn accounts for costly forms of helping behavior. In our view, this would require a program of research in which one examines various forms of helping in various contexts (while using various inductions of empathy). The present findings, in combination with those of Batson and colleagues’ studies, make us tentatively optimistic.

Yet, if we assume generality, we may point at a risk of empathy, at least for situations in which empathy may trigger altruism for specific other people that is conflicting with other important goals—such as equal treatment or collective interests. That is, feelings of empathy may lead one to provide tremendous support to one particular person, thereby violating some fairness and neglecting the well-being of the collective. For example, as noted by Batson et al. (1995, p. 621), an executive may retain an ineffective employee for he or she feels compassion to the detriment of the organization. Another example is that parents may sometimes be so supporting of their children that they might harm the collective interest (e.g., the failure to make an attempt to reduce their children’s yelling and screaming, even when it is upsetting to other people that are around).

Third, the present findings revealed that a note about a very sad story can be so powerful that it elicits strong empathy, even if the instructions emphasize detachment and objectivity. As noted earlier, these findings complement earlier research showing only strong empathic concern when a sad story is combined with the instruction to take the other’s perspective (e.g., Batson & Ahmad, 2001). We suggest, as in earlier research in our lab (Veerbeek, 2005), that the story itself is sufficiently intense to elicit strong empathy in participants—that is, losing one’s father presumably is more intense than a partner ending a relationship. In addition, we suggest that the present findings are consistent with the idea that sometimes empathy can be activated in a fairly “automatic manner,” with the individual himself or herself exerting little “cognitive control” on such processes (cf. Singer et al., 2004, for other evidence, see Singer & Frith, 2005). As such, we find ourselves in agreement with Neuberg et al. (1997) who suggest that “It is not clear why we would need to manipulate empathic concern through perspective-taking instructions. If empathic concern per se influ-

ences helping, then it should do so whether it arises from perspective-taking instructions, from severity of need, from perceptions of kinship or friendship, or from other factors.” (p. 511). Perhaps the automatic activation of empathy is also facilitated not only because the story is very sad, but also because the story is simple in that it leaves little room for interpretation. It gets at people in a direct way—that may well be the most typical way in which empathy is activated.

Before closing, we wish to briefly outline some strengths and limitations. One strength that we have not yet discussed is that the present research integrates relatively distinct lines of research: empathy and altruism on the one hand, and experimental games, with its focus on self-interest, cooperation, competition, and fairness, on the other hand (Fehr & Schmidt, 1999; Kelley et al., 2003; Van Lange, 1999). Although these literatures should be intellectual twins, it is interesting that the emotion of empathy is able to make a very substantial contribution to these longstanding literatures (for recent, more integrative reviews, see Camerer & Fehr, 2006; Van Lange, De Cremer et al., 2007). Indeed, in the literature of experimental games there has been very little attention for altruism, and one plausible reason is simple: empathy has almost never been studied in those literatures. Instead, this literature has focused almost exclusively on relative strangers that do not know anything about each other, a fact of social life that is sometimes true, but perhaps more often not. As such, the study of empathy in these contexts may help acknowledge the existence, prevalence, and perhaps power of such other-regarding tendencies for understanding social interaction.

Some limitations are also important to discuss. First, the experimental game methodology is, of course, one of several methodologies to assess altruistic, selfish, and egalitarian motivation. Perhaps because of its focus on choosing between options for allocating monetary units to self and others, the instrument is able to predict actual behavior in so many social contexts. Yet, one limitation is that it does not capture several of the psychological mechanisms that people have discussed as mediators of observing another distress, such as perceived oneness, relief of negative states, and social approval (e.g., Cialdini, 1991; Maner, Luce, Neuberg, Cialdini, Brown, & Sagarin, 2002). As such, the present findings do not speak to any of the psychological mechanisms, which concern aspects of “the self” and often are thought of as self-interested motivation. Future research could measure these self-related motivations and examine whether they are in fact linked to tendencies toward altruistic motivation evoked by empathy. We actually think that this is somewhat unlikely, in light of the “neutrality” of the situation; however, we may speculate that self-related motives might be especially important in ongoing relationships in which interpersonal attachment has developed (to activate perceived oneness, in which one’s reputation matters (to activate social approval and build trust), and—unlike lab settings—in which mood and guilt may naturally have their ups and downs (to activate negative state relief; for initial evidence, see Maner & Galliot, 2007). In a related manner, it would also be important to examine the mediating influences of automatic processes that might escape conscious awareness (e.g., Singer et al., 2004) but might underlie the activating of empathy, and perhaps the triggering of altruistic motivation.

Second, our empathy manipulations and control condition were modeled after research by Batson and colleagues (e.g., Batson &

Moran, 2001) and the control condition parallels most research on decomposed games and cooperation. Although our manipulations caused powerful effects in self-reports of empathy and in altruistic motivation, it is also a manipulation that is situation-specific and relationship-specific, in that it described a serious disease of an important family member at a critical life phase of young adults. Hence, future research may benefit from complementary inducements of empathy, such as relatively more mundane negative events (e.g., an upsetting event at work) and ones that are unrelated to serious health issues. Moreover, it might be informative to include another control condition, in which participants receive a note with mundane information from the other (to control for simply receiving a note from another with some information); note, however, that in past research on social dilemmas we have not found effects for such notes (for related evidence, see Batson & Moran, 2001, who did not even find effects for a sad story with the instruction to remain objective). That is, small pieces of personal information (vs. no information) do not seem to have a large impact on social behavior, and if they do, it is often not entirely clear what caused the impact (e.g., feelings of similarity). We do think that stronger forms of “getting-to-know-each-other” procedures might be more promising in future research because it seems to induce interpersonal attachment or closeness (for some evidence, see Sedikides, Campbell, Reeder, & Elliot, 1998).

### Concluding Remarks

Empathy exerts strong influences on the interpersonal motivations with which individuals may approach each other, eventually guiding their social interactions, and possibly shaping their relationships. Activation of empathy triggers altruistic motivation, revealed in an increasing concern for another person’s outcomes, in situations that are relatively neutral, without any strong situational demands to helping. At the same time, it does not seem to trigger selflessness or egalitarianism. We are well aware of the danger of imputing meaning to nonsignificant findings, and so we recommend future research to provide further evidence for the present findings across manipulations of empathy, samples, and nations. Further, we suggest that there is much to be gained by cross-fertilizing the “cold games” approach with the “hot emotions” approach in understanding the social—and emotional—underpinnings of when and why we are other-regarding. The present findings support the overall view that the association between empathy and altruistic motivation is both *unique* and *strong*. It is unique because the link between empathy and other outcome-relevant motivations (such as selflessness or egalitarianism) was not supported. It is strong because empathy may be strongly activated, even in the absence of instructions to do so, and even in situations that do not call for helping. Thus, empathy seems a unique and powerful emotion that can help bring about the best in people.

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