In-group bias in children's intention to help can be overpowered by inducing empathy

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Abstract

An experimental vignette study was conducted among children (8-13 years) to examine whether inducing empathic understanding is an effective intervention to overpower peer group boundaries in children's helping. Children were induced or not induced to empathise with the recipient of help, who was or was not part of their (imagined) group of friends. Results showed that children intended to help in-group peers more compared to out-group peers when empathic understanding was not induced. However, when empathy was induced they intended to help friends and non-friends equally. Inducing empathic understanding was effective independent of the recipient's level of need, and children's advanced social perspective taking ability. Encouraging children to imagine how a recipient of help feels might thus be a useful strategy to prevent peer group based biases in children's helping behavior.

Keywords: Intergroup Helping, Empathy, Development

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One of the major challenges in human behavior is to overcome group-based biases and intergroup conflict. Among adults the effectiveness of a variety of intervention strategies has been examined (for an overview see Paluck & Green, 2009). However, intergroup biases are already present in children as young as three (e.g., Hailey & Olson, 2013) and early intervention might ultimately lead to the reduction of intergroup tensions later in life. One such intervention strategy is to stimulate helping across group boundaries by inducing empathy

The aim of the current research was to examine whether inducing empathic understanding is an effective intervention to overpower peer group boundaries in children's intention to help. Empathy is conceptualized in various ways (see Preston & De Waal, 2002 and commentaries) and entails affective and cognitive aspects and involves both sharing and understanding the emotional states of others (Eisenberg, Spinrad, & Sadovsky, 2006; Hastings, Zahn-Waxler, & McShane, 2006). In this study we focus upon the understanding of emotions, which goes beyond the basic, reflex-like emotional resonance and sharing aspect of empathy, and requires grasping another person's distinct emotional perspective (see also Pons, Harris, & De Rosnay, 2004). By stimulating children to focus on the recipient's emotions, group boundaries might no longer influence the intention to help. An experimental vignette study was conducted among children at primary school (8-13 years). Children were induced (or not) to imagine how a peer in need feels under circumstances in which the peer was either part or not part of their (imagined) group of friends. In addition, we examined possible boundary conditions for the effectiveness of inducing empathic understanding by

examining the role of the level of need for help and children's social perspective-taking ability.

In-group bias in helping

Social Identity Theory (Tajfel & Turner, 1979) postulates that the motivation for a positive group identity produces intergroup bias, in which the in-group is favored over the out-group. Children tend to favour their in-group over out-group peers from a young age onwards (Hailey & Olson, 2013). Group boundaries also play a role in prosocial behaviors, such as helping and sharing. Children evaluate helping friends and family members as more obligatory than helping strangers (Killen & Turiel, 1998; Olson & Spelke, 2008), they expect others to feel better when helping an in-group member compared to an out-group member (Weller & Lagattuta, 2013; Weller & Lagattuta, 2014), they evaluate the refusal to help in-group peers as morally blameworthy (Sierksma, Thijs, & Verkuyten, 2014a), and preschoolers and older children share more with in-group peers compared to out-group peers (Fehr, Bernhard, & Rockenbach, 2008; Moore, 2009).

We examine children's intention to help peers that either belong to their group of friends or not. Children spend much of their time within their friendship groups during middle childhood and these groups have important socialization influences (e.g., Adler & Adler, 1995; Berndt & Perry, 1990; Buhrmester & Furman, 1987; Henrich, Kuperminc, Sack, Blatt, & Leadbeater, 2000). We expect that children will intend to help a peer that is part of their group of friends more compared to a peer that is not, and we examined whether this expected intergroup bias can be overpowered by inducing empathic understanding.

Inducing empathy

Intergroup boundaries might be less important when children focus upon how a peer in need feels. Whereas intergroup bias in helping is likely due to social identity motives (Tajfel & Turner, 1979), inducing empathic understanding might trigger other motives, such

as a concern for the personal welfare of the person in need (Batson, 2011). This could mean that group boundaries no longer influence helping behavior. There is some empirical evidence for this process in adults (Batson, Changs, Orr, & Rowland, 2002; Batson et al., 1997a; Batson et al., 1997b). Although several scholars hint at the positive effects of inducing empathy on children's out-group helping (e.g., Aronson, Blaney, Stephan, Sikes & Snapp, 1978; Gorden, 2005), to our knowledge, no studies have directly tested this assumption.

Children gradually develop the capacity for empathic understanding (Eisenberg et al., 2006). For example, by age 5 to 6 years children are able to understand that emotions depend on desires and beliefs, and several years later children start to understand mixed emotional responses (see Pons et al., 2004). Moreover, with age children become more other-oriented and their moral reasoning becomes more sophisticated around age 10 (Eisenberg et al., 2006). Children's empathy is linked to prosociality from an early age (e.g., Eisenberg, 1992; Malti, Gummerum, Keller, & Buchmann, 2009). In addition, studies show that role-taking and social play lead to increases in children's prosocial behavior (Ahammer & Murray, 1979; Chandler, 1973; Staub, 1971). These findings suggest that inducing empathic understanding may be a useful intervention strategy to stimulate helping across group boundaries. Similar to studies by Batson and colleagues (1997a), we induced empathic understanding by instructing children to imagine to what extent a peer in need of help feels sad, upset and down. We expected that when children are induced to empathise with the peer in need, they will tend to help in-group (friends) and out-group (non-friends) peers equally.

Social perspective-taking ability

In the current study we explore whether inducing empathic understanding to promote intergroup helping is related to children's social perspective-taking ability. One important development from around 8 years is that children acquire the ability for social perspective-taking (see Eisenberg, Murphy, & Shepard, 1997; Abrams, Rutland, Pelletier, & Ferrell,

2009; Sierksma, Thijs, Verkuyten, & Komter, 2014b). Whereas children have basic theory of mind understanding around 4 years of age, a more advanced understanding of social perspectives develops later and is related to a better understanding of intergroup dynamics (for an overview see Abrams et al., 2009). A child with more advanced perspective-taking skills might be better at inferring another person's feelings in a situation of need. This would mean that these children will take the recipient's emotions more readily into account in their decision to help compared to children with less advanced social perspective-taking abilities. As a result, inducing empathic understanding might be more effective for the latter compared to the former group of children. Thus, empathic understanding for overpowering intergroup bias in helping might be more effective for children with less advanced social perspective-taking abilities.

However, inducing empathic understanding might not require advanced perspective-taking abilities. Empathy is found early in development (Eisenberg, 1992) and children as young as 3 years have a basic 'theory of mind' which involves the ability to understand that other people have their own feelings and beliefs (Wellman, Cross, & Watson, 2001). Moreover, neurological research has suggested that children between the ages of 7 and 12 years naturally feel empathy for others in need (Decety, Michalska, & Akitsuki, 2008). This suggests that imagining how another person feels might be sufficient to elicit empathic concern. This would mean that inducing empathic understanding may be an effective intervention strategy, independent of children's advanced social-perspective taking ability.

Need

Empathy requires the perception of another person being in need (Batson, 2011). In the current study we examine whether inducing empathic understanding is equally effective for low and moderate need contexts. Among adults, inducing empathy for strangers and out-group members has typically been studied in high need situations, such as being in a car

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accident (Batson et al., 1997b), getting evicted from one's home (Maner & Gailliot, 2007), or taking electrical shocks in someone's place (Maner, Luce, Neuberg, Cialdini, Brown, & Sagarin, 2002). Little is known about the effectiveness of inducing empathic understanding towards out-group members in lower need helping contexts. Yet, Batson (2011) claims that in addition to valuing the other's welfare, the perception of incongruence between someone's current and desired state is a sufficient condition to elicit empathic care. Moreover, 2-year-olds are already capable of perceiving need in another person and spontaneously provide help in low need situations (Tomasello, 1999). This might mean that in a low need helping context, inducing empathic understanding will elicit a similar pro-social motivation as in a moderate need context. Thus, inducing empathy might be equally effective in overpowering peer group boundaries in both need contexts. We will explore this possibility by making a comparison between a low and a moderate need context.

Overview

The current study examined whether children's in-group bias in helping can be overpowered by inducing empathic understanding. We hypothesized that children will intend to help in-group peers more compared to out-group peers. However, when children are instructed to imagine how a peer in needs feels, we expected that children would no longer focus on group boundaries but rather on personal need and would therefore intend to help in-group and out-group peers equally. In addition, we examined whether the effectiveness of inducing empathic understanding depends on children's social perspective-taking ability and recipients' need.

Method

Participants and procedure. A total of 401 children participated in the study (grades 4 through 6) from 7 different schools in the Netherlands. Children were aged between 8 and 13

years ($M = 10.61$, $SD = 0.97$), and 49.9% were female. Children, with parental permission, independently filled in the questionnaire in their classroom under supervision of the teacher and a research assistant.

Stories. A 2 (inducing empathy vs. no inducing empathy) by 2 (friend vs. no friend) by 2 (moderate need vs. low need) between subjects design was used for both stories. All children read two stories in which the gender of the peer in need of help and participant's gender were matched. The stories that involved a friend in low need were: "After school Sara comes walking towards you. Sara is one of your friends. She tells you that it's her turn to clean up the classroom. But she wants to go home to watch a fun movie. She asks you to help her", and "After school Lieke comes walking towards you. Lieke is one of your friends. Lieke wants to call her mum to chat a little. However, she is out of phone credit. She asks if she can borrow your mobile phone". In story 1 moderate need was described as 'she wants to go home soon because her mum is quite ill', and in story 2 as 'she wants to call her mum because her ankle hurts a lot'. For boys, the recipient of help was named Rik (story 1) and Luuk (story 2). Group membership of the peer in need of help was varied in both stories by describing the recipient as 'one of your friends' (in-group) or 'not one of your friends' (out-group).

Inducing empathic understanding. To induce empathic understanding children were asked: "How do you think (*name recipient*) feels?" Subsequently they rated three adjectives, sad, upset and down, on 5-point scales ranging from 'a little bit' (1) to 'very strongly' (5). In the control condition children did not receive this question. Ratings for all emotions were highly correlated (ranging from .85 to .91). A mean score was computed across the two stories for children's empathic understanding.

Intention to help. All stories were followed by the question: "Would you help *name recipient*?" Answers were given on 5-point scales ranging from 'No, absolutely not' (1) to

'Yes, absolutely' (5). A significant correlation was found for children's intention to help in the two stories ($r = .48$, $p < .001$). Moreover, the two stories yielded similar results. Therefore a mean score for the two stories was computed and used in the analysis.

Social perspective-taking ability. We used the Theory of Social Mind Task designed and validated by Abrams and colleagues (2009) and used in previous research (Sierksma et al., 2014b) to assess social perspective-taking ability. Children read the following story: "Thomas and Stefan see each other for the first time and they are playing a game together. Thomas really likes the game and has a lot of fun. Then he leaves the room to go and get something to drink in the kitchen. While Thomas is gone, Stefan steals a toy of Thomas and hides it in his pocket. Before Thomas returns to the room and is still in the kitchen with his mother, his mother asks him whether he likes Stefan. Subsequently children answered the question: "What do you think that Thomas will tell his mother?" followed by: "Why do you think that?" These questions differed slightly from those of Abrams and colleagues (2009) to make sure that younger participants were able to answer the questions by themselves. When children said Thomas would not like Stefan because he stole toys, this was coded 0. When children said Thomas would still like Stefan, but could not accurately explain why (e.g., "Just because he is nice") this was coded 1, while when children said Thomas would still like Stefan because he did not know about the stealing yet, this was coded 2. Inspection of social perspective-taking ability across all children showed that 45.4 % gave a correct answer, 40.6 % did not give an accurate explanation, and 14 % of all children gave an incorrect answer.

Analysis. The data have a hierarchal structure as children (Level 1) were nested in their classrooms (Level 2). Therefore we used multilevel analysis to examine the intention to help. The analysis was carried out with MLwiN 2.21 (Rashbash, Charlton, Browne, Healy, & Cameron, 2009). Three contrasts were specified. The first contrast represented the difference between inducing empathy ('1') and no induction of empathy ('-1'), the second contrast

signified the in-group recipient ('1') versus the out-group recipient ('-1'), and the last contrast represented the difference between moderate need ('1') and low need ('-1'). For children's perspective-taking two contrasts were specified. The first contrast compared children who were able to correctly explain the protagonist view ('1') versus those that could not (-0.5) and those who gave an incorrect explanation (-0.5). In the second contrast we compared children who were able to give an accurate explanation (0.5) and those who could not (0.5) with children who gave an incorrect explanation (-1). Both contrasts were tested separately. All continuous measures were standardized.

Results

Preliminary results. In general, children intended to help ($M = 3.81$, $SD = 0.97$), with the mean score significantly above the neutral midpoint of the scale, $t (398) = 16.62$, $p < .001$. A main effect was found for gender, showing that girls intended to help more compared to boys ($b = 40$, $p < .001$, $\eta^2_{partial} = .40$) and we controlled for gender in the analysis. No main and interaction effects were found for age.

To examine whether the manipulation of need was successful, we tested for the children in the induced empathy condition ($N = 205$) whether their emotion ratings differed according to the level of need. On average children expected the recipient to feel negative ($M = 2.53$, $SD = 0.88$) and multilevel analysis showed that children perceived the recipient of help to feel significantly worse when his or her need was moderate compared to low ($b = .26$, $p < .001$, $\eta^2_{partial} = .07$).

Intention to help. The multilevel results are shown in Table 1. In general, means show that children intended to help in-group and out-group peers when empathy was induced and when it was not induced. However, a main effect for recipient's group membership was found ($p < .001$, $\eta^2_{partial} = .05$), showing that children intended to help a peer that was part of their group of friends more compared to out-group peers. In addition, a main effect was found for the

level of need ($p <.001$, $\eta^2_{partial} = .19$): children intended to help more in situations involving moderate compared to low need. No main effect was found for the induction of empathic understanding.

*insert table 1 about here *

As expected, a significant interaction was found for inducing empathy (yes-no) and whether the recipient was part of the group of friends or not ($p < .01$, $\eta^2_{partial} = .024$, see Figure 1 for means). When empathy was not induced, children showed intergroup bias whereby they intended to help the in-group peer more compared to the out-group peer (respectively $M = 4.12$, $SD = 0.83$ and $M = 3.45$, $SD = 1.04$, b = .31, $p < .001$). In contrast, when children were induced to feel empathic concern they did not show intergroup bias and intended to help in-group and out-group peers equally (respectively $M = 3.87$, $SD = 1.01$ and $M = 3.77$, $SD = 0.88$, $b = .07$, $p = .38$).

insert figure 1 about here

When we examine this interaction in terms of recipient's group membership, results show that children intended to help the out-group peer more in the empathy induced condition compared to the condition in which emphatic understanding was not induced ($b = .14$, $p = .02$). In addition, they intended to help the in-group member less compared to when empathy was not induced ($b = -.13$, $p = .03$). We also examined whether the induction of empathic understanding and its influence on the intention to help is similar for both in-group and out-group peers. In the empathy condition, children indicated that peers of both groups would feel equally bad, $t (203) = -.27$, $p = .79$. Moreover, the correlations of the emotion

ratings and the intention to help were similar for in-group peers ($r = .16$) and for out-group peers ($r = .13$).

Level of Need and Perspective-Taking Ability. No significant two-way and three-way interaction effects were found for the level of need with peer group (in-group vs. out-group), and whether empathy was induced or not. Furthermore, no main or interaction effects were found for the two contrasts representing the difference between children that were able to take the perspective of others versus those that were not. This indicates that inducing empathic understanding did not depend on children's social perspective-taking ability or recipient's level of need.

Discussion

How to reduce intergroup biases is a topic which has received much attention in social psychology. While many studies have been conducted among adults (see Paluck, & Green, 2009), less is known about effective strategies to promote intergroup solidarity in children. In an experimental vignette design we tested whether inducing empathic understanding is effective in stimulating helping across peer group boundaries, and results suggest that it is.

Children intended to help a peer from their own group of imagined friends more compared to a peer who was not part of their group of friends. While previous research has shown that group boundaries influence children's evaluation of third-person helping contexts (e.g., Killen & Turiel, 1998; Olson & Spelke, 2008; Sierksma, et al., 2014a, 2014c; Weller & Lagattuta, 2013), this study for the first time shows that group boundaries also influence children's own behavioral intentions. This means that group identity is a relevant consideration in the intention to help from at least 8 years onwards. Importantly, however, the findings show that this intergroup bias can be overcome when children are stimulated to imagine how the peer in need of help feels. When emphatic understanding was induced, children intended to help out-group peers (non-friends) as much as in-group peers (friends).

Furthermore, they expected the out-group and in-group peer to feel equally sad, upset and down, and for both peers the level of inferred emotion influenced the intention to help in a similar way. Moreover, compared to the non-induced condition, when empathy understanding was elicited, children intended to help the out-group peer more and the in-group peer less. This pattern of findings strongly suggests that when empathic understanding is induced, children no longer focus on which group the peer in need belongs to but instead consider his or her personal welfare.

Inducing empathy was found to be effective in both low and moderate need helping contexts. This is in line with the empathy-altruism hypothesis (Batson, 2011) which states that empathy is triggered when we perceive another person's desire to change his or her current undesirable state. Furthermore, although almost half of the children were unable to correctly understand another peer's social perspective, eliciting empathic understanding proved to be effective in overpowering peer group boundaries irrespective of social perspective-taking ability. This means that all children were able to imagine how the peer in need of help would feel. Empathic care might not require accurately knowing how another person perceives a situation (Batson, 2011), but rather an understanding of the emotional state of the other person. This means that inducing empathic understanding is a promising intervention in stimulating helping across group boundaries, one that is also likely to be effective in younger children.

The findings indicate the potential of inducing empathy, but some limitations should be addressed. First, we focused on empathic understanding and did not consider the extent to which children share the emotional state of the peer in need. Empathy involves different aspects and our focus on understanding implies that we do not know whether the results will be similar when shared emotional feelings are considered. Furthermore, children were asked to imagine how the recipient might feel with regard to specific negative emotions in

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straightforward helping contexts. This might mean that inducing empathic understanding in children is only effective when these specific instructions are given, while a more open format ("how does the child in need feel?") might require more advanced perspective-taking abilities.

We examined the effect of inducing empathic understanding on children's intention to help rather than their actual helping behavior. Inducing empathy in adults increases helping of stigmatized group members (Batson et al., 2002) and initiatives such as the 'roots of empathy' program (Gorden, 2005) suggest that stimulating empathy in children is effective in increasing prosocial behavior. However, it is not clear whether this translates into children's helping of out-group peers. Moreover, the empathy-altruism hypothesis states that while empathy triggers an altruistic motivation, the subsequent decision to help also depends on cost-benefit considerations (Batson, 2011). Research shows that children also consider the costs of helping in their evaluations of helping behavior (Sierksma et al., 2014b). Future studies should assess whether the effect of empathic understanding in overpowering group boundaries in children's helping is reduced when the costs of helping increase. Moreover, future studies should consider other types of stories and investigate how children themselves evaluate the recipient's level of need, as well as examining how children perceive the intergroup context and related group boundaries.

We demonstrated that inducing empathic understanding increases helping of peers that are not part of children's (imagined) group of friends. This is a relevant and realistic group context for children. Little is known about children's helping in other intergroup contexts such as with peers belonging to another ethnic or racial group. Inducing empathic understanding might, for example, be less effective for clearly disliked and stigmatized out-groups (Batson, Eklund, Chermok, Hoyt, & Ortiz, 2007). Future work should shed light on

how different group identities influence helping intentions and actual behavior, and whether different group boundaries can be overpowered by inducing empathy.

While the development of children's ethnic, racial, and national prejudice has been found to decrease from 7 years onwards (Raabe & Beelmann , 2011), no age differences in in-group bias were found in the current study. This is in line with previous studies that examined intergroup helping in children (see e.g., Sierksma et al., 2014a, 2014b, 2014c, 2014d; Weller & Lagattuta, 2013, 2014). This might mean that helping behavior differs from negative behaviors, such as prejudice. Children's intergroup bias is shown to be more pronounced for positive behaviors compared to negative behaviors (Rutland et al., 2007). In addition, distinct moral motivational systems might underlie negative and positive behaviors (Janoff-Bulman, Sheikh, & Hepp, 2009). Future studies should examine how the development of negative intergroup behavior differs from positive intergroup behavior.

It is reasonable to question the usefulness of inducing empathic understanding, especially since it is impossible to induce children to imagine how another person feels every time a helping situation occurs. Research shows, however, that inducing empathy can have potential long-term consequences. For example, when empathy was stimulated in adults this positively influenced how they valued the person in need, also when he or she was no longer in need (Batson, Turk, Shaw, & Klein, 1995). Moreover, empathy induction can lead to long-term improved attitudes towards other groups (Batson et al., 1997a; Clore & Jeffrey, 1972)

Our propensity to empathise with others is remarkable and because of empathy's critical role in morality, it can be a powerful intervention strategy early in life. This study for the first time shows that inducing empathic understanding can overpower the influence of peer group boundaries in children's intention to help. Moreover, inducing empathy was found to be effective over and above the level of need and children's social perspective-taking ability. Encouraging children to imagine how a peer in need of help feels might thus be an

important strategy to prevent peer group based biases in prosocial behavior. Rather than to focus only on changing children's negative attitudes and behavior toward out-groups (see Aboud et al., 2012), stimulating positive behavior across group boundaries might contribute to positive intergroup relations. This opens up a new array of possibilities to enhance intergroup solidarity, such as approaches that focus less on changing negative stereotypes and prejudicial attitudes and more on the ability to empathise. In addition, it may be fruitful to address the conditions that hamper or stimulate situational empathy with out-group members. Such early interventions might prove effective also later in life.

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Table 1. *Beta's for multilevel model for the intention to help.*

	b
Empathy induction	.01
Group membership	.18***
Need	.40***
Empathy * Group membership	-.13**
Empathy * Need	-.04
Group membership * Need	.04
Empathy * Group membership * Need	-.02
Gender	.40***
Deviance	1003.68
Deviance difference	79.78***

Note. Empathy denotes the difference between induced empathic understanding versus no

induction. Group membership represents the difference between friend and non-friend

recipient. Need is the difference between moderate and low need. **$p \leq .01$, ***$p \leq .001$, two

tailed

Figure 1. Intention to help in-group and out-group peers when empathic understanding is induced or not induced