

Children's intergroup helping:  
The role of empathy and peer group norms

Jellie Sierksma<sup>1</sup>, Jochem Thijs, & Maykel Verkuyten

University of Utrecht, Ercomer Department, Padualaan 14, 3584 CH Utrecht, The  
Netherlands

Accepted for Journal of Experimental Child Psychology

<sup>1</sup>corresponding author T: +31 30-2538206, M: j. sierksma@uu.nl

*Author Note.* The authors would like to thank the children, parents and teachers for participating in the studies. Moreover, the authors are grateful to Aart Sierksma for his help in data collection.

### Abstract

Two studies examined children's (8 to 13 years) intergroup helping intentions. In Study 1, 856 children indicated their intention to help national in-group or out-group peers in a high need situation and in either a public or private context. Results showed that children's empathic tendencies predicted their intention to help and that the context as well as recipients' group membership had no effects. In Study 2, 388 children indicated their intention to help in-group and out-group peers in either a low need or high need situation. Results of Study 1 were replicated. Additionally, in the low need situation and when helping was public, children intended to help out-group peers more than in-group peers, particularly when they perceived an accepting descriptive classroom norm about the out-group. When the need was relatively high empathy appeared to outweigh children's group norm considerations. In all analyses, no age differences were found.

Keywords: Intergroup Helping, Empathy, Group norms

### Children's intergroup helping: The role of empathy and peer group norms

The human capacity to take care of others emerges early in life. Young children are capable of understanding another person's need (Eisenberg, 1992), they often respond with empathy and prosociality (Eisenberg & Fabes, 1998; Thompson, Barresi, & Moore, 1997; Zahn-Waxler, Radke-Yarrow, Wagner, & Chapman, 1992), and offer help already at 18 months of age (Warneken & Tomasello, 2006). Children have a tendency to empathize and help others in need (e.g., Eisenberg, 1992). Yet, prosociality has been predominantly studied in interpersonal contexts and less is known about children's intergroup helping in which ethnic, national or other group boundaries are salient. Furthermore, whereas an increasing number of studies examine the role of social group norms in children's negative intergroup attitudes (e.g., Abrams & Rutland, 2008; De Franca & Monteiro, 2013; Nesdale & Lawson, 2011), not much is known about the influence of these norms in intergroup helping situations.

The current experimental vignette research examines the roles of children's (8-13 years) empathic tendency and perceived group norms in an intergroup helping context. In two studies Dutch children's public or private intention to help Dutch in-group peers or German out-group peers was investigated. Study 1 examined helping intentions in relation children's empathy when the need for help was relatively high. Study 2 additionally assessed a low need situation in which concerns about social group norms are likely to emerge. These concerns were examined by manipulating help within a public or private classroom context and by assessing perceived classroom norms about the out-group. Below we first discuss hypotheses pertaining to the role of empathy in children's helping intentions (Studies 1 and 2). Next we discuss expectations relating to the high need context (Study 1), followed by the hypotheses for the low need context (Study 2).

**Empathy**

During primary school children increasingly help others by sharing objects or money, and assisting in emergency situations (Eisenberg, 1992; Radke-Yarrow, Zahn-Waxler, & Chapman, 1983). Numerous researchers have shown that prosocial behavior is related to children's disposition to empathize with others (e.g., Eisenberg, 1992; Eisenberg et al., 1987; Eisenberg, Zhou, & Koller, 2001; Malti, Gummerum, Keller, & Buchmann, 2009), and empathic children help more when there are clear cues indicating need and distress (e.g., Gelfand, Hartmann, Cromer, Smith, & Page, 1975; Eisenberg, 1992; Li, Li, Decety, & Lee, 2013). Therefore, we expect that in general more empathic children will intend to help more.

**High need**

Whereas empathy can be expected to influence children's general intention to help others, additional considerations are likely to be important when children think about helping in-group or out-group members in a public or private context. Study 1 examines children's intention to help when need is relatively high. Children aged 8 to 13 years consider it a moral obligation to help in high need situations (e.g., Sierksma, Thijs, Verkuyten, & Komter, 2014c). Social cognitive domain theory (Turiel, 1983) argues that moral considerations are general, obligatory and inalterable. From early childhood on children understand and apply moral principles in their reasoning about social behavior (Killen, Lee-Kim, McGlothlin, & Stangor, 2002), and do not differentiate among different recipients when need is high (Miller, Bersoff, & Harwood, 1990). High need situations tend to evoke moral concerns that are general and not context or target specific. In these situations one is morally expected to offer help independent of whether others are present and whether it is an in-group or out-group member that needs help. Therefore, in the context of high need (Study 1) we expect that children's intention to help will depend on their empathic disposition and not on the context

of helping (i.e., public versus private) or the group membership of the peers in need of help (i.e., in-group versus out-group).

### **Low need and group norms**

When need for help is less urgent, children may not only feel morally obliged to offer help but may also consider peer group norms. Therefore, in Study 2 we compare a low need to a high need situation and consider group norms. Children have a basic desire to be accepted and to belong (Baumeister & Leary, 1995) and peers are significant others that function as important sources for appropriate behavior (Killen et al., 2002; Smetana et al., 2009). Peer group norms about intergroup relations become salient around middle childhood (Killen, Rutland, Abrams, Mulvey, & Hitti, 2013) and affect children's intergroup attitudes and behavioral intentions (Bigler, Jones, & Lobliner, 1997; De Franca & Monteiro, 2013; Nesdale & Lawson, 2011). Moreover, children adjust their intergroup behavior to the specific in-group norm (Fitzroy & Rutland, 2010), and disapprove of others that do not do so (Abrams & Rutland, 2008; Killen & Stangor, 2001).

In a public context where accountability is relatively high, social norms become salient and promote self-presentational behavior (Rutland, Cameron, Milne, & McGeorge, 2005). From kindergarten on, children are concerned about their social reputation and understand how impression management might influence behavior of others (e.g., Banerjee & Yuill, 1999; Banerjee, Bennett, & Luke, 2010; Hatch, 1987; Sluckin, 1981). Children as young as 5 behave more generous when they know others are aware of their behavior (Leimgruber, Shaw, Santos, & Olson, 2012; Sierksma, Thijs, & Verkuyten, 2014b), and the presence of peers influences children's spontaneous positive affective responses (e.g., Castelli & Tomelleri, 2008). This means that in public contexts and when the situation involves low need, children might help peers relatively more. Thus, for Study 2, we hypothesize that children intend to help more in public compared to private circumstances.

However, helping might also be related to who the recipient of help is. Children tend to focus on and prefer their in-group (Nesdale, 2007), and there is a general tendency to be concerned about the welfare of fellow in-group members (Brewer, 2007). Although *refusing* to help an in-group member might invite disapproval by the social group, *providing* in-group help is common and thus not very noteworthy (Hopkins et al., 2007). In contrast, out-group helping is less common and tends to attract more attention. This means that helping out-group members might be more effective to present oneself in a positive way and to be socially accepted. Yet, it is likely that this depends on perceived out-group norms. Out-group helping should invite approval by one's peer group when the peer group norm about the out-group is relatively positive and not when the norm is rather negative. Therefore in Study 2, children's perception of the descriptive classroom norm about the out-group is examined. Descriptive norms refer to what important others do and think (Cialdini, Kalgren, & Reno, 1991). We expect that children help the out-group relatively more in a public setting in which there is a positive descriptive norm about the out-group. In testing this prediction we also considered children's own attitude toward the German out-group. If children's public helping intentions are guided by group norms they should follow the descriptive peer norm and not their own out-group attitude.

### **Private Helping**

In contrast to public helping, private helping should not depend on peer group norms. Therefore when helping is a private matter and need is low, other motivations might be relevant in children's consideration to help peers. Two contrasting predictions can be made. On the one hand, social identity research has shown that there is a general tendency to be concerned about the welfare of fellow in-group members (Brewer, 2007). Furthermore, social identity theory (Tajfel & Turner, 1979) argues that the motivation to maintain a positive group identity tends to generate intergroup biases in which the in-group is favored over a

relevant out-group. Research has shown that in-group preference is already present in children as young as three (e.g., Kowalski & Lo, 2001; Martin & Fabes, 2001), in both the minimal group paradigm (Nesdale, Maass, Griffiths, & Durkin, 2003) and in real groups (e.g., Elashi, Mills, & Grants, 2010; Patterson & Bigler, 2006). If social identity concerns motivate children's private helping in a low need situation, this means that children will intend to help the in-group more compared to the out-group.

On the other hand, research shows that fair treatment and equal distribution are central to children's helping and sharing behavior (e.g., Fehr, Bernhard, & Rockenbach, 2008; Geraci & Surian, 2011; Moore, 2009; Schmidt & Sommerville, 2011; Shaw & Olson, 2012; Sloane, Baillargeon, & Premack, 2012; Warneken & Tomasello, 2006). This suggests that children are intrinsically motivated to take care of others' wellbeing. This means that when need is low (Study 2) and helping private, children will intend to help in- and out-group members equally.

### **Age differences**

As they grow older, children develop a better understanding of how groups work and they increasingly consider what is socially acceptable when expressing particular attitudes and behaviors (Abrams, Rutland, Cameron, & Ferrell, 2007; Killen & Rutland, 2011; Nesdale, 2007). Furthermore, children develop a growing tendency towards displaying behavior that puts them in the best possible light to significant others (e.g., Aloise-Young, 1993; Banerjee & Yuill, 1999). Moreover, older children are better able to weigh various aspects in their decision to help whereas younger children tend to focus more on the needs of peers (Eisenberg et al., 1987; Sierksma et al., 2014c). This makes it plausible that with age, children become more responsive to norms of their peer group, especially in a public context. Therefore, it is likely that when the need for help is low (Study 2), older children's intention to help will reflect the norm of their peer group more strongly compared to younger children.

Age differences are less likely in the high need condition (Studies 1 and 2) and in the private context when need is low (Study 2) since social group norms are expected to be less important in these situations.

## Overview

Two studies were conducted on children's public and private intentions to help in- and out-group peers. In the first study we aim to demonstrate children's intention to help peers in a high need situation, and expect that children's empathic disposition will predict their intention to help. The second study examines children's helping intentions when need is either high or low, and in the latter condition social group norm considerations are expected to emerge. This means that in the public context, children are expected to help out-group peers more compared to in-group peers but only when they perceive a positive descriptive norm about the out-group. Furthermore, these group norm considerations might be especially important for older compared to younger children.

For low need and private helping, two contrasting predictions are formulated. On the one hand, children might help the in-group more compared to the out-group in order to maintain a positive in-group identity (Tajfel & Turner, 1979). On the other hand, children might intend to help in-group and out-group peers equally because fairness is central to helping. In addition, private helping should not be related to the descriptive norm about the out-group.

These predictions are tested by examining native Dutch children's helping intentions towards the German out-group and their Dutch in-group. Germany is the largest and most important neighboring country of the Netherlands with which children are familiar. Research has shown that Dutch children see Germans as a typical out-group and that they have mixed beliefs about Germans and rather neutral feelings towards them (Du Bois-Reymond, 1998; Verkuyten, 2001). Yet, and comparable to British children (Rutland, 1999), they tend to

evaluate Germans less favorably than the Dutch in-group (Verkuyten, 2001). These findings indicate that Germany is a relevant and meaningful out-group for Dutch children.

## **Study 1**

### **Method**

#### **Participants and procedure.**

A total of 882 children (52.8% girls) participated in the study. Children came from 21 schools in various parts of the Netherlands. Only children in grade 4 to 6 (*Mean age* = 10.71, *SD* = 0.99) were included, involving a total of 48 classrooms. All children indicated that they as well as their parents were of ethnic Dutch origin. As some children did not describe why they liked being Dutch (see below) and some children did not indicate their intention to help, 831 children were included in the analyses. Children that were included were aged 8 (n= 3), 9 (n = 99), 10 (n = 241), 11 (n = 297) 12 (179) and 13 years (n= 12). The children completed the questionnaire in their classrooms under supervision of their teacher and a research assistant.

#### **Design and measures.**

**Helping intentions.** We assessed children's intentions to help other children by presenting them with a situation which was systematically and randomly varied between children and within classrooms in a 2 (context of helping) by 2 (recipient of help) between-subjects design. Prior to reading about this situation, children were asked to indicate what aspects of the Netherlands made them proud. This was done to make national group boundaries salient (Sani & Bennett, 2004; Sierksma, Thijs, & Verkuyten, 2014a). Of all children, 36.1 % wrote down at least one reason, 25.7 % wrote down 2 reasons, 17.2 % gave 3 reasons and 13.6 % wrote down more than 3 reasons; 7.4 % of all children did write something down, but not a valid reason for why they were proud (e.g., "I am not sure" or "all countries are equally nice") and were thus excluded from the analysis.

Subsequently, children read the following story: "Imagine you have just received 10 euro from your mum or dad. Then your teacher tells you that there has been a large fire in Germany [OR the Netherlands; manipulated between-subjects] and the children lost their home and all their toys. The teacher says that we should help the children. Everybody can give money. The next day you can put money in a big box". To examine the impact of the public-private distinction, the public story continued with: "the box is open. Afterwards, everybody has to tell how much money they gave", and in private condition the story ended with: "The box is *closed* and *nobody* can see how much money you gave. You also don't have to tell anyone afterwards". Subsequently children were asked: "how much money would you give?". They could mark an amount of euro ranging from 1 to 10.

A post hoc test among a separate group of 343 children (49.6 % girls, *Mean age* = 10.57, *SD* = 0.99) showed no differences between children in grade 4, 5 and 6 in how happy they thought receiving 10 euro would make them (all  $p > .45$ ), and also no grade differences in how much children thought they would be able to buy with this amount of money (all  $p > .56$ ). This indicates that younger and older children had a similar understanding of the value of 10 Euro.

**Empathy.** Children's general tendency to empathize with others was assessed using a version of Bryant's (1982) Index of Empathy for Children and Adolescents adapted and validated by Nesdale, Griffiths, Durkin and Maass (2005). This eight-item measure has adequate reliability across different age groups. Items were: 'I enjoy it when someone receives a surprise', 'When I see another child crying, I almost have to cry myself', 'I feel sad when another child is hurt', 'When I see happy people, I become happy myself', 'I feel down when another child has no one to play with', 'Sometimes I tear up when I see something sad on tv', 'I really pity animals in pain' and lastly 'When a story has a happy ending, I feel happy myself'. Answers were rated on a 5-point scale ranging from 1 (*never*), to 3

(*sometimes*) to 5 (*always*). Cronbach's alpha was .78. Principal Components Analysis yielded a single factor that explained 39.73% of the variance.

### **Analysis.**

The data have a hierachal 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). To examine the effects of our manipulations we specified two orthogonal contrasts for the context of helping (public '1' versus private '-1') and for the group membership of the recipients of help (Dutch in-group '1' versus German out-group '-1'). For ease of interpretation all continuous measures were standardized (*z*-scores) in the multilevel analysis.

## **Results**

### **Preliminary results.**

On average children intended to give 5.22 euro ( $SD = 2.72$ ). A main effect was found for age ( $b = -.09$ ,  $p < .001$ ,  $\eta^2_{\text{partial}} = .028$ ), showing that older children intended to give less money than younger children. No significant effects were found for gender and there were no significant interactions for gender and age with the orthogonal contrast for recipient's group membership and context of helping. For children's empathic tendencies, a mean score of 3.24 ( $SD = 0.69$ ) was found. Table 2 shows the means and standard deviations for each helping context according to the group membership of the recipient of help.

### **Helping intention.**

Multilevel analysis showed a main effect for children's empathic tendency ( $p < .001$ ,  $\eta^2_{\text{partial}} = .176^1$ ), indicating that more empathic children intended to help more. No interaction effects were found between empathy and the contrasts for recipient's group membership or the public-private context of helping. In addition, no significant main effects were found for

recipient's group membership and the context of helping. However, there was a significant interaction effect between recipient's group membership and context, ( $p = .01$ ,  $\eta^2_{\text{partial}} = .006$ ) (See Table 1). Simple effects analysis showed that in the public context, children intended to help in-group peers as much as out-group peers ( $b = .07$ ,  $p = .11$ ). In the private condition, children intended to help out-group peers somewhat *more* compared to in-group peers ( $b = -.10$ ,  $p = .03$ ).

Table 1

*Beta's of Multilevel Model for Children's Intention to Help, Study 1*

<i>Explanatory variables</i>	Intention to help
<i>B</i>	
Empathy	.34***
Group	-.01
Context	.03
Group * Context	.08*
Age	.10**

*Note.* Group denotes the difference between in-group and out-group recipients of help,

Context denotes the difference between the private and public setting.

\* $p \leq .05$ , \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ , two tailed.

## Discussion

Study 1 examined children's public and private intention to help national in- and out-group peers in a relatively high need situation. Results show that on average children were willing to share half of their money. This suggests that children valued the imagined money received, but were willing to help peers in need.

In agreement with previous research (e.g., Eisenberg, 1992; Eisenberg et al., 2001; Malti et al., 2009), more empathic children intended to help more. Results further show that children's helping intentions were not influenced by the public-private distinction. This is in line with previous findings showing that children consider it morally obligatory to help in high need situations (Miller et al., 1990; Sierksma et al., 2014c). This suggests that when need is high, empathic tendencies are central to children's intention to help and more important than the presence of others or the group membership of the peer in need of help.

In general, older children intended to help less compared to younger children. This age difference in generosity does not seem to be due to a difference in the perceived value of 10. However, it might be related to the fact that saving increases with age and that older children know what saving is for (Webley, 2005). Moreover, previous studies show that older children are better able to weigh conflicting interest (i.e., self and others) in social situations compared to younger children (Eisenberg, Murphy, & Shepard, 1997; Sierksma et al., 2013) and as a consequence they often express more nuanced views (Aboud & Levy, 2000; Nucci & Turiel, 2009; Rutland, Killen, & Abrams, 2010).

An unexpected finding was that children's helping intentions in the private setting did depend on group membership. More specifically, in this setting children intended to help out-group peers *more* than in-group peers. This is surprising given previous research that has demonstrated that children perceive a general moral obligation to help in high need (Miller et al., 1990), that they prefer fairness and equality (e.g., Geraci & Surian, 2011; Schmidt & Sommerville, 2011; Shaw & Olson, 2012; Sloane et al., 2012), and that they have a tendency to favor the in-group over the out-group (e.g., Elashi et al., 2010; Kowalski & Lo, 2001; Martin & Fabes, 2001; Nesdale et al., 2003; Patterson & Bigler, 2006). Because in Study 1 the sample size was fairly large while the effect size was rather small it is important to replicate this result before offering post-hoc explanations.

## Study 2

A second study was conducted with two goals. First, we additionally examine children's intention to help in-group and out-group peers when the need is less urgent. We predicted that when the need is relatively low, peer group norms in addition to children's empathic tendency will predict helping. This means that children will intend to help out-group peers compared to in-group peers more in the public setting when they perceive a positive descriptive norm about the out-group. Furthermore, compared to younger children, older children's helping tendency might depend more on peer group norms. Second, we aimed to replicate results for the high need helping context. Moreover, when need is high we expect that empathic concern for the peers in need of help will overpower the influence of social norms. Therefore, the perceived descriptive norm about the out-group should not influence the intention to help peers in high need.

### Method

#### **Participants and procedure.**

A total of 388 children indicated that they and their parents were of Dutch origin. Children were in grade 4 to 6 (25 school classes) aged between 8 and 13 years ( $M = 10.58$ ,  $SD = 1.03$ ) and 47.5 % were girls. Children that failed to report reasons for why they liked the Netherlands or did not report their intention to help were not included in the analysis. The final analyses included a total of 354 children, aged 8 (n= 1), 9 (n = 59), 10 (n=103), 11 (n= 120), 12 (n=65), and 13 years (n=6). As in Study 1, children completed a questionnaire in their classrooms under supervision of their teacher and the first author. The perceived evaluative norm about the out-group (see below) and the individual out-group attitude were assessed first and in a counterbalanced order. After several unrelated questions, children read the helping story and indicated their intention to help. At the end of the questionnaire children reported about their empathic tendency.

**Measures and design.**

***Perceived descriptive norms about the out-group.*** Perceived classroom norms about the out-group were examined by asking children to indicate how much they thought the peers in their classroom liked Germans. Ratings were given on a seven-point smiley face scale, ranging from 'very sad face' (7) to 'very happy face' (1), as developed and validated by Yee and Brown (1992). This format has been successfully used to examine group attitudes among children and early adolescents (e.g., Verkuyten, Thijs, & Sierksma, 2014). The scale was recoded so that a higher score indicates a more positive peer group norm.

***Personal out-group attitude.*** Children's personal attitude towards the out-group was assessed by asking them to indicate how much they themselves liked people from Germany. Answers were given on the same seven-point scale as the perceived descriptive norms about the out-group. Children's out-group attitude correlated significantly with the perceived peer norm about the out-group ( $r = .61, p < .001$ ).

***Helping intentions.*** Similar to Study 1, children were presented with a story about a hypothetical helping situation that was systematically varied between children and within classrooms, and that additionally differed in the level of need: a 2 (context of helping) by 2 (recipient of help) by 2 (need) between-subjects design. Booklets were randomly divided across all children. However, to ensure that the sample size was large enough to analyze interaction effects in the low need condition, there were more low need versions (2/3) than high need versions of the questionnaire (1/3). Children again first described what aspects of the Netherlands made them proud. Most of them were able to give at least one reason (22.1%), 25.3% reported two reasons and 48.9 % reported 3 or more reasons. Stories for high need were identical to Study 1. For low need we changed the reason for helping peers into: "Then your teacher tells you that some children in Germany [OR the Netherlands;

manipulated between-subjects] have few toys". All other aspects of the story remained the same as in the high need story.

We did not pretest perceived level of need in the stories that were presented to the children. Although special care was taken to ascertain that the stories were highly similar and that only the level of need differed, there is the possibility that the level of need is not responsible for the differences found. Therefore, we conducted a separate post hoc test of perceived level of need of both stories. We asked 47 children (Mean age = 11.74,  $SD = 0.49$ , 51.10 % were girls) who did not participate in the main study, how sad they thought the children within the stories felt and how much they needed help. Paired t-tests showed that in the high need story, children perceived the peer in need of help to be more sad compared to the low need story,  $t (46) = 14.63, p < .001$ . Furthermore, children perceived a significantly greater need for help in the high need story compared to the low need story,  $t (46) = 7.48, p < .001$ . This indicates the children did perceive the stories to differ in recipient's need for help.

Some children in the first study indicated they did not want to help at all (0 Euro) but this option was not included. Therefore, in Study 2 we extended the scale so that it ranged from 0 to 10 Euro.

**Empathy.** To assess children's empathic tendencies the same 8 items were used as in Study 1. Cronbach's alpha was again satisfactory with .76. All items loaded on a single factor that explained 38.18 % of the variance.

### **Analysis.**

Similar to study 1, multilevel analysis was carried out with MLwiN 2.21 (Rasbash et al., 2009). Three orthogonal contrasts were specified: for context of helping (public '1' versus private '-1'), recipient's group membership (in-group '1' versus out-group '-1'), and level of need (high '1' versus low '-1'). We first examined main and interaction effects of the context of helping, recipient's group membership, and the level of need. As the size of our sample

limited the power to test four-way interactions, we examined the moderating effect of perceived classroom norm separately for the low need condition only. An additional multilevel model was conducted for examining the association between children's out-group attitude and their low need helping intention. Again all continuous measures were standardized.

## Results

### Preliminary results.

On average children intended to give 4.27 euro ( $SD = 2.74$ ) which is lower compared to Study 1. This might be due to the fact children were now also allowed to give 0 euro. However, results for the high need context show a highly similar pattern compared to Study 1. No main effects were found for age and gender in helping intention. However, to ensure comparability to Study 1, we included age (continuous predictor) in the analysis. Overall, children perceived a somewhat positive classroom norm towards the out-group ( $M = 4.32$ ,  $SD = 1.45$ ),  $t(375) = 4.28$ ,  $p < .001$ , and they also evaluated the German out-group at the positive side of the scale ( $M = 4.77$ ,  $SD = 1.75$ ),  $t(374) = 8.49$ ,  $p < .001$ . Children perceived a more negative descriptive out-group norm compared to their own evaluation, paired t-test ( $374) = -6.01$ ,  $p < .001$ . Similar to Study 1, for empathy a mean score of 3.20 ( $SD = 0.66$ ) was found. Table 2 shows the means and standard deviations for the helping intentions, and total number of children in each condition.

### Need, context, recipient group.

We first examined main and interaction effects of context of helping, recipient's group membership, level of need and empathy (see Table 3). Again a main effect was found for children's empathic tendency ( $p < .001$ ,  $\eta^2_{\text{partial}} = .074$ ) but no interactions with context, recipient's group membership, and level of need. This indicates that more empathic children

intended to help more, independent of contextual influences, level of need, or recipient's group membership.

Table 2

*Means, standard deviations, and number of participants (in italics) per condition (study 1 and 2) for intention to help in-group or out-group peers according to need, and the setting of helping*

	High need		Low need
	Study 1	Study 2	Study 2
<b>Public</b>			
In-group	5.46 (2.66) <i>211</i>	4.25 (2.13) <i>24</i>	3.63 (2.32) <i>58</i>
Out-group	5.09 (2.60) <i>209</i>	4.07 (2.87) <i>28</i>	4.88 (2.86) <i>72</i>
<b>Private</b>			
In-group	4.95 (2.65) <i>214</i>	4.07 (2.92) <i>28</i>	4.10 (2.74) <i>59</i>
Out-group	5.38 (2.86) <i>199</i>	5.57 (3.26) <i>28</i>	3.91 (2.64) <i>57</i>

Multilevel analysis further showed no significant main effects and two-way interaction effects for any of the three contrasts. However, a significant three-way interaction was found for recipient's group membership, context of helping, and recipient's need ( $p = .003$ ,  $\eta^2_{\text{partial}} = .023$ ). To interpret this interaction we computed simple slopes for the two-way interactions between group and context for the high need versus the low need situations. In the *high need* situation, this interaction was significant ( $b = .18$ ,  $p = .02$ ). In the private context and similar to Study 1, children intended to help out-group peers more compared to in-group peers ( $b = -$

.26,  $p = .03$ ), and they intended to help in- and out-group peers equally in the public context ( $b = .11, p = .28$ ). In the *low need* situation there was a significant main effect for recipient's group membership ( $b = -.13, p = .05$ ). In general, children intended to help out-group peers more compared to in-group peers. Moreover, a negative interaction between group and context was found ( $b = -.12, p = .05$ ), which implied that children intended to help out-group peers more than in-group peers in the public setting ( $b = -.24, p = .003$ ), but not in the private setting ( $b = -.12, p = .20$ ).

### **Perceived classroom norm.**

For the *high need* situation simple correlations showed that the perceived descriptive classroom norm about the out-group was unrelated to children's intention to help out-group peers in the public setting ( $r = .05, p = .81$ ) and in the private setting ( $r = -.28, p = .15$ ). For the *low need* situation, a significant correlation was found between the perceived classroom norm about the out-group and children's out-group helping in the public setting ( $r = .35, p = .008$ ), but not in the private setting ( $r = -.16, p = .25$ ).

Given sample size restrictions, multilevel analysis of the moderating effect of the perceived classroom norm was conducted for the low need situation only. There was a significant three-way interaction between norms, group, and context in the low need situation ( $b = -.21, p < .001, \eta^2_{\text{partial}} = .05$ ).

We conducted simple slope analysis (Aiken & West, 1991) and examined the two-way interaction between group and context for children perceiving a relatively accepting norm about the out-group (1  $SD$  above the mean) and children perceiving a relatively non-accepting norm about the out-group (1  $SD$  below the mean). As expected, results showed that when children perceived a non-accepting out-group norm, the interaction between recipient's group membership and context of helping was not significant ( $b = .10, p = .24$ ).

Table 3

*Beta's of Multilevel Model for Children's Intention to Help, Study 2*

<i>Explanatory variables</i>	Intention to help <i>B</i>
Empathy	.27***
Group	-.10
Context	-.05
Need	.09
Group * Context	.05
Need * Group	.03
Need* Context	-.06
Need* Group* Context	.16**
Age	- .09

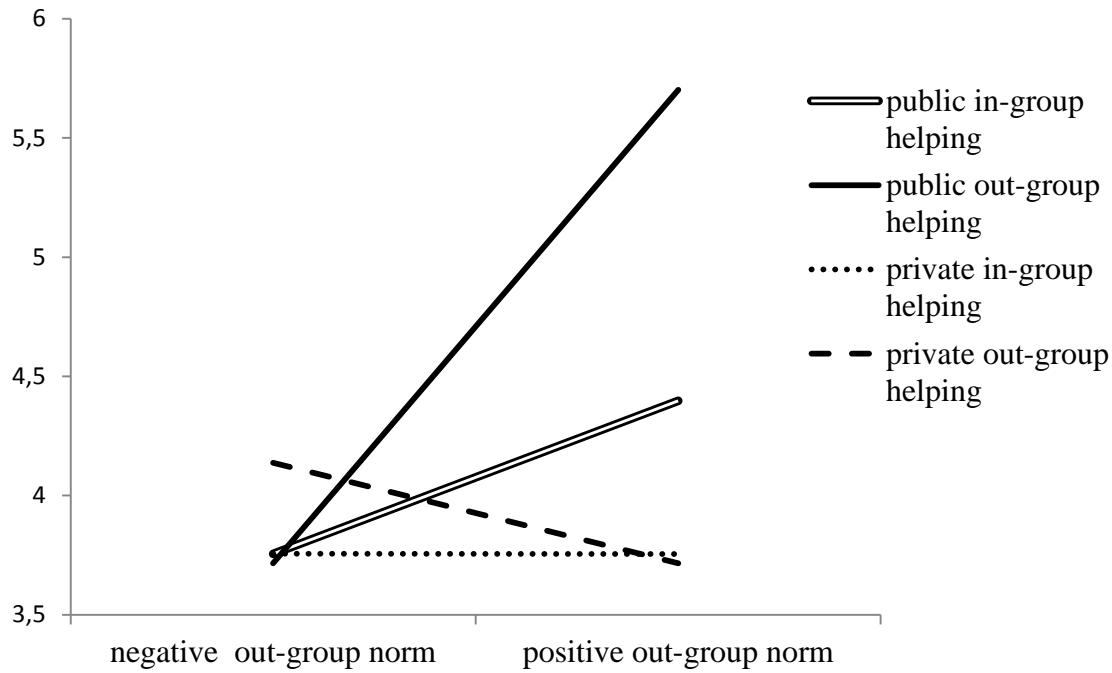
*Note.* Group denotes the difference between in-group and out-group recipients of help,

Context denotes the difference between the private and public setting, Need denotes the

differences between high and low need. \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ , two tailed.

However, the interaction for context of helping and recipients' group membership was significant when children perceived an accepting norm about the out-group ( $b = -.33, p < .001$ ). Results are shown in Figure 1. Further analysis showed that these children intended to help the out-group more compared to the in-group in the public setting ( $b = -.46, p < .001$ ), but not in the private context ( $b = .19, p = .12$ ). Thus it appears that the perceived descriptive norm about the out-group influenced children's public helping intentions in the expected direction. When the behavior is visible to others and the classroom norm was perceived as out-group accepting, children intended to help the out-group more compared to the in-group.

A separate multilevel model was estimated for the influence of children's own out-group attitude in the low need helping context. Results showed that their evaluation about Germans did not interact with the context of helping and the group membership of the recipient ( $b = -.03$ ,  $p = .60$ ). This shows that children's intention to help in the low need context was unrelated to their personal out-group attitude.



*Figure 1.* Influence of perceived descriptive norm about the out-group on children's intention to help

## Discussion

In Study 2 we aimed to replicate the finding for the high need helping context. In addition, we examined children's intention to help in a low need context and assessed the influence of the perceived descriptive out-group norm. Similar to Study 1, results show that children's intention to help was strongly associated with their empathic tendency. Moreover,

when need was high children intended to help in- and out-group peers equally in the public setting. In addition, results showed that children's intention to help out-group peers in high need was unrelated to the perceived descriptive norm about the out-group. In line with the hypotheses, this suggests that helping in high need is perceived as morally obligated, independent of the context of helping and the group membership of the recipient of help (Turiel, 1983). However, when need was high and helping private, children again were inclined to help the out-group *more* than the in-group. Possible interpretations of this surprising finding are discussed in the general discussion.

For the low need situation, results suggest that children considered social group norms in the public condition: they intended to help the out-group more compared to the in-group when they perceived a positive descriptive norm about the out-group. In addition, children's intention to help was not influenced by their personal evaluation of the out-group. In line with the hypotheses, helping out-group peers stands out more than helping in-group peers (Hopkins et al., 2007) and is therefore an effective means to present oneself in a positive way. Finally, children did not differentiate between groups when need was low and helping was private. This further corroborates the argument that social norms only influence children's public helping.

### **General Discussion**

The aim of the present research was to provide novel insight into children's motives for intergroup helping. In two studies we examined the unique contributions of children's empathic tendency and peer group norms. Results show that children's intention to help differed according to the level of need of the peers, whether helping was public or not, and the perceived descriptive norm about the out-group.

In both studies and for situations involving high need, more empathic children intended to help more. Moreover, both studies showed that children intended to offer an equal

amount of help to in-group and out-group peers in the public context, and children's intention to help in the high need situation was not related to the descriptive norm about the out-group or their age (Study 2). These results indicate that in a high need situation, children's empathic tendency drives their intergroup helping intentions. In line with social cognitive domain theory (Turiel, 1983), the findings suggest that children perceive a moral obligation to help in high need, which is independent of recipient's group membership and the private or public context of helping.

In Study 2 when the need of peers was low, children's intention to help did not only depend on their empathic tendency. When children perceived a positive descriptive norm about the out-group, they intended to help out-group peers more than in-group peers but only in the public setting. Moreover, their intention to help in the low need context was not influenced by their own out-group attitude which additionally suggests that the effect depends on social norms. Children appear to consider peer group norms when others know about their helping behavior and are inclined to present themselves favorably by helping the out-group more compared to the in-group.

For the low need and private helping situation two contrasting hypotheses were formulated. Children either were expected to show concern for general fairness or they could be motivated by group identity concerns (Tajfel & Turner, 1979). Results showed that children intended to provide help to in-group and out-group peers equally. This suggests that fairness considerations are central to children's intergroup helping intentions in private helping situations involving low need. This corroborates previous findings that children are intrinsically motivated to help others from a very young age onwards (e.g., Geraci & Surian, 2011; Fehr et al., 2008; Moore, 2009; Schmidt & Sommerville, 2011; Sloane et al., 2012; Shaw & Olson, 2012; Warneken & Tomasello, 2006). Moreover, the finding that children did not show in-group bias in their helping intentions suggests that while children might possess

the categorical knowledge that lead to in-group bias from a young age onwards (Hailey & Olson, 2013), this does not mean that they spontaneously apply this categorical knowledge in their own behavior (Dunham & Degner, 2013). This is in line with previous work that showed that children's intergroup helping evaluations only reflect identity protection motives when ethnic self-involvement is enhanced (Sierksma et al., 2014a).

Unexpectedly, however, in the high need private helping context children intended to help out-group peers *more* than in-group peers. This finding was robust in two different samples and is therefore unlikely due to data issues. This is a surprising finding because it is a rare outcome in intergroup research and does not seem to fit social identity theory (Nesdale, 2007; Tajfel & Turner, 1979). A few other experimental studies have found that children like the out-group more than the in-group when the group they are assigned to has an exclusionary group norm (e.g., Nesdale & Lawson, 2011; Nesdale, Maass, Durkin, & Griffiths, 2005). However, the current finding of higher out-group than in-group helping does not depend on such a group norm. One possible interpretation is that the high need helping situation triggered an association with charity and aid to foreign countries. This might have increased children's helping intentions towards peers from Germany but not towards Dutch peers. Another explanation is related to the question we asked the children about what made them proud of the Netherlands. Besides enhancing group boundaries this question might have activated intentions in line with being proud. The social identity approach (Turner & Reynolds, 2001) argues that group distinctions do not inevitably lead to less positive out-group attitudes. Rather the content of social identity determines whether or not out-group negativity exists. There can be exclusionary or rather pro-social implications for out-groups, depending on the specific (situational) understanding of what characterizes one's in-group (Nesdale, & Lawson, 2011). Perhaps children felt that helping peers from a foreign country would make them proud, since it would stand out more than helping in-group peers. Whereas

peer group norms might have overpowered the effect of this social identity understanding in the public context, this might not have been the case for private helping. Future research should examine this interpretation.

Some limitations and other future directions for research should be considered. First, an increasing number of studies demonstrate the importance of peer group norms for children's intergroup attitudes (e.g., Abrams & Rutland, 2008; Nesdale & Lawson, 2011). However, similar to the current study this research does not explicitly examine the underlying psychological processes. Peer group norms can be influential for a number of reasons and studying these reasons would improve our understanding of why and how these norms affect children's attitudes and behaviors. For example, children can endorse in-group norms of helping in order to develop or maintain a prosocial reputation (Hardy & Van Vugt, 2006; Roberts, 1998), or for preventing social disapproval or even rejection, but also because of internalization processes and possible feelings of guilt.

Second, we chose to study a national out-group with which children are very familiar. Children were found to be relatively positive towards Germans and also perceived their classmates to have somewhat positive feelings. The interplay of empathy and group norm considerations might differ for the type of out-group, especially when negative norms about the out-group exist. For example, ethnic minority and immigrant out-groups tend to face negative stereotypes and ethnic peer discrimination, also in the Netherlands and also by early adolescents (Verkuyten & Kinket, 2000; Verkuyten & Thijs, 2002). This might mean that helping these peers goes against peer group norms and therefore invites disapproval and in-group rejection.

Another suggestion for future research is to examine whether other helping situations and other public contexts (e.g., parents, teachers) have similar influences on children's helping intentions. For example, children's actual intergroup helping might differ from their

reported intentions in response to written stories about peers in need. Furthermore, rather than written vignettes future studies could consider using images or short films that are more realistic and vivid and therefore could lead to stronger effects. Additionally, the current vignettes described how the teacher said the children should help. This means that next to empathy, children might have been influenced by the demands of an authority figure. Older children tend to inhibit overt intergroup bias because they know that negative out-group attitudes and behavior tend to be considered unacceptable and inappropriate by teachers and adults (Abrams, Rutland, Cameron, & Ferrell, 2007; Fitzroy & Rutland, 2010). Yet, we did not find an age difference for in-group and out-group helping and also not for the influence of group norms. This suggests that authority demands are not a likely explanation. Another suggestion for future research is to examine helping intentions in situations that are solely within the child's control and in which adults are not potentially involved. We examined helping at the societal level and this might differ from intergroup helping in which in a concrete setting a peer needs help from another peer (Sierksma et al, 2014a, 2014b). Moreover, the current studies examine need at the societal level. Future studies should address whether the findings also generalize to need at the interpersonal level.

In contrast to research on negative intergroup attitudes (e.g., Abrams, Rutland, & Cameron, 2003; Nesdale & Lawson, 2011), we did not find any age-related effects and this was also not found in earlier research on intergroup helping among this age group (Sierksma et al., 2014a, 2014b). This might indicate that the development of prosocial intergroup attitudes does not have to correspond to negative attitudes. The positive-negative asymmetry effect indicates that children's intergroup differentiation tends to be more pronounced for positive compared to negative evaluations and behavior (Rutland et al., 2007). Moreover, the domains of positive and negative behaviors are characterized by different moralities with distinct motivational and regulatory systems (Janoff-Bulman, Sheikh, & Hepp, 2009).

Positive behavior that focuses on advancing other's well-being raises questions of prescriptive morality that indicates what one should do, making a failure to act blameworthy. In contrast, negative behavior involves proscriptive morality that indicates what one should *not* do, making the act blameworthy. Future studies should examine whether children's development of prosocial and more negative attitudes and behaviors differs.

The current research is one of the first to examine intergroup helping and contributes to our understanding of children's motives to help their peers. This is critical for the stimulation of prosocial behavior across group boundaries and the improvement of peer relations. The research shows that in low need situations, children intend to help the out-group more than in-group peers because of social norm considerations. However, when the need is relatively high, empathic tendencies outweigh these considerations making children want to help in- and out-group peers equally in a public context. Further research needs to determine the generalizability of these findings across different ages, contexts and types of groups.

## References

Aboud, F. E., & Levy, S. R. (2000). Interventions to reduce prejudice and discrimination in children and adolescents. In S. Oskamp (Ed), *Reducing prejudice and discrimination. "The Claremont Symposium on Applied Social Psychology"*, (pp. 269-293). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.

Abrams, D., & Rutland, A. (2008). The development of subjective group dynamics. In S. R. Levy, & M. Killen, (Eds.), *Intergroup attitudes and relations in childhood through adulthood* (page 47-65). Oxford: Oxford University Press.

Abrams, D., Rutland, A., & Cameron, L. (2003). The development of subjective group dynamics: Children's judgments of normative and deviant in-group and out-group individuals. *Child Development, 74*, 1840–1856.

Abrams, D., Rutland, A., Cameron, L., & Ferrell, J. (2007). Older but wilier: In-group accountability and the development of subjective group dynamics. *Developmental Psychology, 43*, 134-148.

Aiken, L. S., & West, S. G. (1991). Multiple regression: Testing and interpreting interactions. Newbury Park: Sage.

Aloise-Young, P.A. (1993). The development of self-presentation: Self-promotion in 6- to 10-year-old children. *Social Cognition, 11*, 201-222.

Banerjee, R., Bennett, M., & Luke, N. (2010). Upsetting others and provoking ridicule: Children's reasoning about the self-presentational consequences of rule-violation. *British Journal of Developmental Psychology, 28*, 941-947.

Banerjee, R., & Yuill, N. (1999). Children's explanations for self-presentational behavior. *European Journal of Social Psychology, 29*, 105-111.

Baumeister, R.F., & Leary, M.R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*, 497–529.

Bigler, R. S., Jones, L. C., & Lobliner, D. B. (1997). Social categorization and the formation of intergroup attitudes in children. *Child Development, 68*, 530–543.

Brewer, M. B. (2007). The social psychology of intergroup relations: Social categorization, ingroup bias, and outgroup prejudice. In A. W. Kruglanski, & E. T. Higgins (Eds). *Social psychology: Handbook of basic principles* (pp. 695-715). New York, NY: Guilford Press.

Bryant, B. K. (1982). An index of empathy for children and adolescents. *Child Development, 53*, 413–425.

Castelli, L., & Tomelleri, S. (2008). Contextual effects on prejudiced attitudes: When the presence of others leads to more egalitarian responses. *Journal of Experimental Social Psychology, 44*, 679-686.

Cialdini, R. B., Kallgren, C. A., & Reno, R. R. (1991). A focus theory of normative conduct: A theoretical refinement and reevaluation of the role of norms in human behavior. In M. P. Zanna (Ed.), *Advances in experimental social psychology*, vol. 24, (pp. 201-235). San Diego: Academic Press.

De França, D. X. & Monteiro, M. B. (2013). Social norms and the expression of prejudice: The development of aversive racism in childhood. *European Journal of Social Psychology, 43*, 263–271. doi: 10.1002/ejsp.1965

Du Bois-Reymond (1998). Beelden van Nederlandse kinderen over Duitsland en de Duitsers. In J. Godschalk & T. Müller (Eds.), *De samenleving onderzocht: sociologie in de jaren negentig* (pp. 71-94). Amsterdam, The Netherlands: Het Spinhuis.

Dunham, Y. & Degner, J. (2013). From categories to exemplars (and back again). In M. R. Banaji, and S. A. Gelman, (2013), *Navigating the social world: What infants, children, and other species can teach us* (pp 275 – 280). New York: Oxford University Press.

Eisenberg, N. (1992). *The caring child*. Harvard University Press.

Eisenberg, N., & Fabes, R. A. (1998). Prosocial development. In N. Eisenberg (Ed.), W. Damon (Series Ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (5th ed., pp. 701-778). New York: Wiley.

Eisenberg, N., Murphy, B.C., & Shepard, S. (1997). The development of empathic accuracy. In W.J. Ickes (Ed.), *Empathic accuracy* (pp. 73-116). New York: Guilford Press.

Eisenberg, N., Shell, R., Pasternack, J., Lennon, R., Beller, R., & Mathy, R. M. (1987). Prosocial development in middle childhood: A longitudinal study. *Developmental Psychology, 23*, 712-718.

Eisenberg, N., Zhou, Q., & Koller, S. (2001). Brazilian adolescents' prosocial moral judgment and behavior: Relations to sympathy, perspective taking, gender-role orientation, and demographic characteristics. *Child development, 72*, 518-534.

Elashi, F. B., Mills, C. M., & Grant, M. G. (2010). In-group and out-group attitudes of Muslim children. *Journal of Applied Developmental Psychology, 31*, 379-385.

Fehr, E., Bernhard, H., & Rockenbach, B. (2008). Egalitarianism in young children. *Nature, 454*, 1079-1083.

FitzRoy, S. & Rutland, A. (2010), Learning to control ethnic intergroup bias in childhood. *European Journal of Social Psychology, 40*, 679–693. doi: 10.1002/ejsp.746

Gelfand, D. M., Hartmann, D. P., Cromer, C. C., Smith, C. L., & Page, B. C. (1975). The effects of instructional prompts and praise on children's donation dates. *Child Development, 46*, 980-983.

Geraci, A., & Surian, L. (2011). The developmental roots of fairness: infants' reactions to equal and unequal distributions of resources. *Developmental Science*, 14, 012–1020. doi: 10.1111/j.1467-7687.2011.01048.x

Hailey, S. E., & Olson, K. R. (2013). A social psychologist's guide to the development of racial bias: The critical role of status. *Social and Personality Psychology Compass*, 7, 457 - 469. doi: 10.1111/spc3.12038

Hardy, C. L., & Van Vugt, M. (2006). Nice guys finish first: The competitive altruism hypothesis. *Personality and Social Psychology Bulletin*, 32, 1402-1413.

Hatch, J. A. (1987). Impression management in kindergarten classrooms: An analysis of children's face-work in peer interactions. *Anthropology and Education Quarterly*, 18, 100-115.

Hopkins, N., Reicher, S., Harrison, K., Cassidy, C., Bull, R., & Levine, M. (2007). Helping to improve the group stereotype: On the strategic dimension of prosocial behavior. *Personality and Social Psychology Bulletin*, 33, 776-788.

Janoff-Bulman, R., Sheikh, S., & Hepp, S. (2009). Proscriptive versus prescriptive morality: Two faces of moral regulation. *Journal of Personality and Social Psychology*, 96, 521-537.

Killen, M., Lee-Kim, J., McGlothlin, H., & Stangor, C. (2002). How children and adolescents evaluate gender and racial exclusion. *Monographs for the Society for Research in Child Development* (Serial No. 271, Vol. 67, No. 4). Oxford, England: Blackwell.

Killen, M., & Rutland, A. (2011). *Children and social exclusion: Morality, prejudice and group identity*. Oxford, England: Wiley-Blackwell.

Killen, M., Rutland, A., Abrams, D., Mulvey, K. L., & Hitti, A. (2013). Development of intra- and intergroup judgments in the context of moral and social-conventional norms. *Child Development*, 84, 1063-1020. Doi: 10.1111/cdev.12011.

Killen, M. & Stangor, C. (2001). Children's social reasoning about inclusion and exclusion in gender and race peer group contexts. *Child Development*, 72, 174-186.

Kowalski, K., & Lo, Y. F. (2001). The influence of perceptual features, ethnic labels, and sociocultural information on the development of ethnic/racial bias in young children. *Journal of Cross-Cultural Psychology*, 32, 444-455.

Leimgruber, K. L., Shaw, A., Santos, L. R., & Olson, K. R. (2012). Young children are more generous when others are aware of their actions. *PloS one*, 7, e48292.

Li, Y., Li, H., Decety, J., & Lee, K. (2013). Experiencing a natural disaster alters children's altruistic giving. *Psychological science*. Doi: 10.1177/0956797613479975

Malti, T., Gummerum, M., Keller, M., & Buchmann, M. (2009). Children's moral motivation, sympathy, and prosocial behavior. *Child Development*, 80, 442-460.

Martin, C. L., & Fabes, R. A. (2001). The stability and consequences of young children's same-sex peer interactions. *Developmental Psychology*, 37(3), 431.

Miller, J. G., Bersoff, D. M., & Harwood, R. L. (1990). Perceptions of social responsibilities in India and in the United States: Moral imperatives or personal decisions. *Journal of Personality and Social Psychology*, 58, 33-47.

Moore, C. (2009). Fairness in children's resource allocation depends on the recipient. *Psychological Science*, 20(8), 944-948.

Nesdale, D. (2007). The development of ethnic prejudice in early childhood: Theories and research. In O. Srach & B. Spodek (Eds.), *Contemporary perspectives on social learning in early childhood education* (pp. 213-240). Charlotte, NC: Information Age.

Nesdale, D., Griffiths, J., & Durkin, K., & Maass, A. (2005). Empathy, group norms and children's ethnic attitudes. *Applied Developmental Psychology*, 26, 623-637.

Nesdale, D., & Lawson, M.J. (2011). Social groups and children's intergroup attitudes: Can school norms moderate the effects of social group norms? *Child Development*, 82, 1594-1606. DOI: 10.1111/j.1467-8624.2011.01637.x

Nesdale, D., Maass, A., Durkin, K., & Griffiths, J. (2005). Group norms, threat and children's ethnic prejudice. *Child Development*, 76, 1-12.

Nesdale, D., Maass, A., Griffiths, J., & Durkin, K. (2003). Effects of in-group and out-group ethnicity on children's attitudes towards members of the in-group and out-group. *British Journal of Developmental Psychology*, 21(2), 177-192.

Nucci, L., & Turiel, E. (2009). Capturing the complexity of moral development and education. *Mind, Brain and Education*, 3, 151-159. Doi: 10.1111/j.1751-228X.2009.01065.x

Patterson, M. M., & Bigler, R. S. (2006). Preschool children's attention to environmental messages about groups: Social categorization and the origins of intergroup bias. *Child Development*, 77, 847-860.

Radke-Yarrow, M., Zahn-Waxler, C., Chapman, M. (1983). Prosocial dispositions and behavior. In E. M. Hetherington (Ed.), *Handbook of child psychology: Socialization, personality and social development* (vol. 4, pp. 469-545). New York: Wiley.

Rashbash, J., Charlton, C., Browne, W. J., Healy, M., & Cameron, B. (2009). MLwiN version 2.1. University of Bristol: Centre for Multilevel Modelling.

Roberts, G. (1998). Competitive altruism: From reciprocity to the handicap principle. *Proceedings of the Royal Society*, 265, 427-431.

Rutland, A. (1999). The development of national prejudice, in-group favouritism and self-stereotypes in British children. *British Journal of Social Psychology*, 38, 55-70.

Rutland, A., Brown, R. J., Cameron, L., Ahmavaara, A., Arnold, K., & Samson, J. (2007). Development of the positive-negative asymmetry effect: In-group exclusion norm as

a mediator of children's evaluations on negative attributes. *European Journal of Social Psychology*, 37, 171–190.

Rutland, A., Cameron, L., Milne, A., & McGeorge, P. (2005). Social norms and self-presentation: Children's implicit and explicit intergroup attitudes. *Child Development*, 76, 451 – 466.

Rutland, A., Killen, M., & Abrams, D. (2010). A new social-cognitive developmental perspective on prejudice: The role of group identity and morality. *Perspectives on Psychological Science*, 5, 280–291. Doi: 10.1177/1745691610369468

Sani, F. & Bennett, M. (2004). Developmental aspects of social identity. In M. Bennett & F. Sani (Eds.), *The development of the social self* (pp. 77-100). New York: Psychology Press.

Schmidt, M. F., & Sommerville, J. A. (2011). Fairness expectations and altruistic sharing in 15-month-old human infants. *PLoS One*, 6, e23223.

Shaw, A., & Olson, K. R. (2012). Children discard a resource to avoid inequity. *Journal of Experimental Psychology: General*, 141, 382.

Sierksma, J., Thijs, J., & Verkuyten, M. (2014a). Ethnic helping and group identity: A study among majority group children. *Social Development*, doi: 10.1111/sode.12077

Sierksma, J., Thijs, J., & Verkuyten, M. (2014b). With a little help from my friends: Bystander context and children's attitude toward peer helping. *Journal of Social Psychology*, doi: 10.1080/00224545.2013.872595

Sierksma, J., Thijs, J., & Verkuyten, M., Komter, A. (2014c). Children's reasoning about the refusal to help: The role of need, costs and social perspective taking. *Child Development*, 85, 1134-1149. doi: 10.1111/cdev.12195

Sloane, S., Baillargeon, R., & Premack, D. (2012). Do infants have a sense of fairness? *Psychological Science*, 23, 196-204.

Sluckin, A. (1981). *Growing up in the playground: The social development of children*. London: Routledge.

Smetana, J. G., Tasopoulos-Chan, M., M., Gettman, D. C., Villalobos, M., Campione-Barr, N. Metzger, A. (2009). Adolescents' and parents' evaluations of helping versus fulfilling personal desires in family situations. *Child Development*, 80, 280-294. Doi: 10.1111/j.1467-8624.2008.01259.x

Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Monterey, CA: Brooks-Cole.

Thompson, C., Barresi, J., & Moore, C. (1997). The development of future-oriented prudence and altruism in preschoolers. *Cognitive Development*, 12, 199-212.

Turiel, E. (1983). *The development of social knowledge: Morality & convention*. Cambridge, UK: Cambridge University Press.

Turner, J. C., & Reynolds, K. J. (2001). The social identity perspective in intergroup relations: Theories, themes and controversies. In R. Brown & S. Gaertner (Eds.), *Handbook of social psychology: Intergroup processes* (Vol. 4). Oxford, UK and Cambridge, USA: Blackwell.

Verkuyten, M. (2001). National identification and intergroup evaluations in Dutch children. *British Journal of Developmental Psychology*, 19, 559-571  
doi: 10.1348/026151001166254

Verkuyten, M., & Kinket, B. (2000). Social distances in a multi-ethnic society: The ethnic hierarchy among Dutch pre-adolescents. *Social Psychology Quarterly*, 63, 75-85.

Verkuyten, M., & Thijs, J. (2002). School satisfaction of elementary school children: The role of performance, peer relations, ethnicity and gender. *Social Indicators Research* 59, 203-228.

Verkuyten, M., Thijss, J., & Sierksma J. (2014). Majority children's evaluation of acculturation preferences of immigrant and emigrant peers. *Child Development, 85*, 176-191.  
DOI: [10.1111/cdev.12111](https://doi.org/10.1111/cdev.12111).

Warneken, F., & Tomasello, M. (2006). Altruistic helping in human infants and young chimpanzees. *Science, 311*, 1301-1303.

Webley, P. (2005). Children's understanding of economics. In M. Barrett & E. Buchanan-Barrow (Eds). *Children's understanding of society* (pp. 43-67). New York: Psychology Press.

Yee, M. D., & Brown, R. (1992). Self-evaluations and intergroup attitudes in children aged three to nine. *Child Development, 63*, 619 -629.

Zahn-Waxler, C., Radke-Yarrow, M., Wagner, E., & Chapman, M. (1992). Development of concern for others. *Developmental Psychology, 28*, 126.

## Footnotes

<sup>1</sup> MLWiN does not give effect sizes. Therefore squared eta's were calculated using ANOVA with classroom included as a factor.