A social identity approach to explaining children's aggressive intentions

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ABSTRACT

This study explored the effects of group norms, intra-group position, and age on the direct and indirect aggressive intentions of 247 children (aged 5.50 to 11.83 years). Participants were assigned to a team, with team norms (aggression vs. helping) and the child's position within the team (prototypical vs. peripheral–prototypical vs. peripheral) manipulated. Results showed that children in the aggressive norm condition reported greater aggressive intentions than those in the helping norm condition, although, when age was considered, this effect remained evident for younger, but not older, children. Similarly, intra-group position influenced the aggressive intentions of younger children only. For these children, when group norms supported aggression, prototypical members and peripheral members who anticipated a future prototypical position reported greater aggressive intentions than peripheral members who were given no information about their future position. The implications of these findings for understanding childhood aggression, and for intervention, are discussed.

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The question as to why children engage in aggression has received widespread attention over the years. Studies that have focused on this issue have frequently explored the individual characteristics of aggressive children (e.g., Crick, Grotpeter, & Bigbee, 2002; Kaukiainen et al., 1999; Vitaro, Brendgen, & Tremblay, 2002), as well as their family characteristics (e.g., Chang, Schwartz, Dodge, & McBride-Chang, 2003; Eron, Huesmann, & Zelli, 1991; Haapasalo & Tremblay, 1994; Patterson, Dishion, & Bank, 1984). However, it's increasingly becoming recognized that the peer group also has an important role to play (DeRosier, Cillessen, Coie, & Dodge, 1994; Espelage, Holt, & Henkel, 2003; Rodkin, Farmer, Pearl, & VanAcker, 2006).

Childhood aggression and the group context

As children progress through middle childhood, they spend an increasing amount of time with their peers (Rubin, Bukowski, & Parker, 1998). Typically, children form friendships with peers who are similar to them in terms of demographic characteristics such as age, sex and ethnicity (Cairns & Cairns, 1994; Hartup, 1992; Kupersmidt, DeRosier, & Patterson, 1995). Similarities in behaviors such as aggression also occur from an early age. Farver (1996), for example, studied the friendship groups of 4-year-olds and found that, for 9 of the 12 groups examined, significant within-group similarity in aggression occurred (i.e., intraclass correlations ranged from .73 to .98 for these nine groups). Such behavioral similarity has also been observed within

friendships during middle childhood (Boivin & Vitaro, 1995; Cairns, Cairns, Neckerman, Gest, & Gariepy, 1988; Duffy & Nesdale, 2009; Kupersmidt et al., 1995; Poulin & Boivin, 2000).

Attempts to explain why aggressive children are friends with similarly aggressive others must consider both selection and socialization processes. Initially, children tend to select friends who are similar to themselves in terms of their aggressive behavior (Poulin & Boivin, 2000; Werner & Crick, 2004). However, evidence also indicates that friends have a continuing influence on aggression. Boivin and Vitaro (1995), for instance, found that elementary school-aged boys who were initially less aggressive than the others in their peer network became significantly more aggressive over a 1-year period. In another longitudinal study, Werner and Crick (2004) examined whether the initial level of aggressive behavior displayed by friends in Grades 2 to 4 could predict the child's own level of aggression 1 year later. For both boys and girls, friends' initial physical aggression predicted the child's later physical aggression, supporting the existence of a socialization effect. A similar association was also found for girls when relational aggression was considered.

Given these findings, a focus on the processes that underlie the group's influence would seem essential, in order to more fully understand why children engage in aggression. Accordingly, the current study aimed to elaborate on the group mechanisms that might contribute to children's aggressive intentions and employed a social identity approach to do so. In particular, the current study drew on social identity theory (SIT; Tajfel & Turner, 1979) and it's more recent elaboration, self-categorization theory (SCT; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), as well as the application of SIT to children via social identity development theory (SIDT; Nesdale, 2004, 2007).

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A social identity approach to childhood aggression

Briefly, SIT proposes that individuals are prone to self-categorizing themselves into particular groups (e.g., activity, sex, ethnicity, social), with their group affiliations forming part of their self-concept, or social identity. SIT makes the further assumption that individuals are motivated to achieve and maintain a positive social identity (Tajfel & Turner, 1979; Turner, 1975) and, in order to accomplish this goal, it is necessary to make comparisons between the in-group and relevant out-groups. In particular, a positive social identity can be achieved by evaluating the in-group as positively distinct from relevant out-groups.

Although SIT's propositions can, in principle, be applied to children, the theory does not address the issue of how intra- and inter-group attitudes and behaviors develop. SIDT was proposed to fill this gap, highlighting four phases in the developmental process. Specifically, children are thought to move through the stages of *undifferentiated* (typically up to 2–3 years), *social group awareness* (beyond 2–3 years), and *in-group preference* (after the acquisition of group awareness). In-group preference might then turn to *out-group hostility* (typically after 6–7 years) under certain circumstances. These include, but are not limited to, if out-group hostility is normative within the in-group and if the child believes that their status within the in-group, or the in-group's status overall, can be improved by a display of out-group hostility (Nesdale, Durkin, Maass, Kiesner, & Griffiths, 2008).

A growing body of evidence is now available to support the relevance of the social identity perspective to children. Research has shown that, even by 5 years of age, self-categorization as a group member occurs (see Bennett, 2004). Studies have also revealed this perspective to be useful in explaining numerous group phenomena amongst children, including in-group favoritism (Bigler, Jones, & Lobliner, 1997; Nesdale & Flesser, 2001; Yee & Brown, 1992), stereotyping (Bigler, Spears-Brown, & Markell, 2001), and prejudice (Nesdale, Durkin, Maass, & Griffiths, 2005; Nesdale, Maass, Durkin, & Griffiths, 2005).

Recent years have also seen the emergence of preliminary investigations that utilize a social identity approach to enhance the understanding of children's aggressive behavior. It is on this work that the current study builds, focusing on two variables central to the social identity perspective: group norms and intra-group position. Specifically, the impact of these variables on children's aggressive intentions is examined for two age groups that span middle childhood (i.e., those in early middle childhood and those in late middle childhood) and for two types of aggression (i.e., direct and indirect).

Group norms

According to the social identity approach, once individuals categorize themselves as belonging to a particular group, the group will begin to exert its influence on them via group norms (i.e., rules or standards that prescribe appropriate attitudes and behaviors to be displayed by group members; Turner, 1982). As noted previously, SIDT also specifically proposes that preference for the in-group is more likely to shift to hostility towards an out-group if group norms support such out-group negativity. In applying this perspective to childhood aggression, it follows that children should have more positive attitudes towards aggression, and engage in more aggressive behavior, if the norms of the group that they belong to endorse such actions.

Several findings in line with this proposition have now been reported. Ojala and Nesdale (2004), for example, examined the role of group norms in determining attitudes towards bullying by presenting children, aged 10 to 13 years, with a story in which an in-group member bullied an out-group member. Within the story, group norms were manipulated to support either bullying or fairness. Results revealed that the in-group member (i.e., the bully) was more likely to be retained by the in-group when his behavior was consistent with the in-group's norms (i.e., when the norm was bullying rather than fairness).

Other studies have also explored the association between group norms and aggressive or bullying intentions and behavior. For example, both Nesdale et al. (2008) and Duffy and Nesdale (2010) found that elementary school children, in Grades 2 to 5 and Grades 4 to 7, respectively, reported greater aggressive and bullying intentions when the norms of the group to which they were assigned supported rather than sanctioned such behavior. Moreover, a recent study that examined group norms within the naturally formed friendship groups of 8- to 14-year-olds, showed that children who belonged to groups with a norm supportive of bullying (as determined by peer-reports of group norms) engaged in greater bullying behavior than those who belonged to groups without such a norm (Duffy & Nesdale, 2009).

The current study utilized a design similar to that employed by Nesdale et al. (2008) and Duffy and Nesdale (2010), with children assigned to either an aggressive norm condition or a helping norm condition. In line with the findings of these studies, it was anticipated that those belonging to a group supportive of aggression would report greater aggressive intentions than those belonging to a group supportive of helping behavior.

Intra-group position

When considering the extent to which group members' behavior is consistent with the norms of their group, the social identity construct of intra-group position (or prototypicality) also becomes relevant. According to Turner et al. (1987), the more similar an individual is to other in-group members, and the less similar he or she is to out-group members, the more prototypical that individual is. Consequently, when compared to peripheral group members, prototypical members are typically evaluated more positively by other group members (Hogg & Hardie, 1991; Hogg, Hardie, & Reynolds, 1995; Hogg & van Knippenberg, 2003) and, when the in-group is threatened, are more likely to respond with group-level strategies such as increased in-group bias (Jetten, Spears, & Manstead, 1997).

Given that the prototypical position is considered to be the most representative of the in-group, it also follows that prototypical group members should engage in more normative behavior than peripheral group members. Applied to the issue of childhood aggression, it could thus be argued that, amongst groups with a norm supportive of aggression, children who are prototypical rather than peripheral members would have the most positive attitudes towards aggression and would display the most aggressive behavior.

Two recent studies have provided support for this prediction. Focusing on naturally formed friendship groups amongst children aged 8 to 14 years, Duffy and Nesdale (2009) found that prototypical members of pro-bullying groups engaged in greater bullying behavior than those on the periphery of such groups. Further, using a design in which both group norms (helping versus aggression) and intra-group position (prototypical versus peripheral) were experimentally manipulated, Duffy and Nesdale (2010) obtained a similar result with a similarly aged sample. That is, amongst children assigned to the aggression norm condition, it was the prototypical rather than peripheral members who reported the greater aggressive intentions.

However, although the foregoing studies have provided consistent support for the social identity approach, further research regarding the relationships between intra-group position and childhood aggression is still required. In particular, studies to date have only considered the child's position within the group at a single point in time, without considering the possibility that a group member's position can change over time. As early as 1978, Tajfel argued that out-group derogation could be used as a strategy to improve intra-group position. Similarly, SIDT notes that children might be more likely to direct negative actions towards an out-group if they believe that such behavior could help them to gain a more central position in the future.

Given these arguments, research is required that examines the more dynamic nature of this variable and its effects.

In the adult literature, findings that support a less static view of intra-group position have been obtained. For example, studies focusing on both natural groups (Herek, 1987; Peres, 1971) and experimentally-formed groups (Noel, Wann, & Branscombe, 1995) have found that peripheral members who faced uncertainty about their acceptance by a desirable in-group engaged in out-group derogation, presumably in an attempt to make their position more secure. Jetten and colleagues have also conducted a series of studies in which the future position of group members was explicitly manipulated. In one such study, Jetten, Branscombe, and Spears (2002) found that, amongst participants who were given feedback indicating that they were currently peripheral group members, the anticipation of becoming a more prototypical member in the future was associated with an increased level of in-group bias. Similarly, Jetten, Branscombe, Spears, and McKimmie (2003) reported that peripheral members who expected greater acceptance by the in-group in the future were willing to spend more time working for the benefit of the group than were peripheral members who were given no information about their future with the group.

In combination, these findings highlight the need to consider more than just an individual's current position within their group. By allowing for the possibility that peripheral members might improve their position in the future, significant insight into the behavior of these members can be obtained. In contrast to the static view of intra-group position, which suggests that peripheral members are less likely than prototypical members to act for the good of the group, a dynamic view draws attention to the fact that certain peripheral members (e.g., those who desire an improved position or anticipate such a position in the future) can be strongly influenced by the group and motivated to act in its best interest.

The current study thus aimed to extend previous research in the area of childhood aggression by differentiating between peripheral members who anticipated an improved position and those who did not. Specifically, in addition to randomly assigning children to one of two norm conditions (i.e., helping or aggression), they were randomly assigned to one of three intra-group position conditions: prototypical, peripheral but anticipating a future prototypical position (i.e., the peripheral–prototypical condition), and peripheral with no information about future position (i.e., the peripheral condition). Overall, children assigned to the prototypical and peripheral–prototypical conditions were expected to show greater conformity to group norms than those assigned to the peripheral condition. More specifically, when the group norm was aggression, it was anticipated that current and future prototypical members would report greater aggressive intentions than those on the periphery who were given no reason to expect an improved position. In contrast, for groups with a helping norm, the greater conformity to group norms shown by those in the prototypical and peripheral–prototypical conditions was expected to result in these children reporting fewer aggressive intentions when compared to those in the peripheral condition.

Age. In addition to investigating the group norm and intra-group position effects described above, the current study also considered whether age moderated the predicted pattern of findings. Although the broader social identity perspective suggests that the impact of these group factors should be universal, a recent revision of SIDT (Nesdale, 2012) proposes that the strength of their effects might differ as children move through middle childhood. In particular, it is argued that, during this time, children's social acumen (i.e., their understanding of how social systems work and their awareness of how to use this information to their advantage) continues to develop, making them increasingly likely to recognize that negative inter-group attitudes and behaviors are considered inappropriate by significant others (e.g., teachers, parents). It follows that, as a result of this enhanced understanding, the strength of endorsement of aggressive in-group

norms should ease with increasing age, as should the use of aggression to maintain or enhance intra-group position.

To date, preliminary evidence from studies examining the effect of age on conformity to norms has supported SIDT's proposition. Nipedal, Nesdale, and Killen (2010) reported that, when compared to an inclusive norm condition, group norms of exclusion and exclusion-plus-relational aggression were associated with greater aggressive intentions amongst 7-year-olds. In contrast, for 10-year-olds, greater aggressive intentions were only seen in the exclusion-plus-relational aggression condition, the strongest of the negative group norm manipulations. Nesdale and Lawson (2011) also reported that, although both 7- and 10-year-old children showed conformity to group norms, the extent of the effect appeared to decrease with age.

Following on from this work, the current study aimed to examine whether the influence of group norms and intra-group position were attenuated as children progressed through middle childhood. In order to do this, children in the earlier stages of this developmental period were compared to those in the later stages.

Type of aggression. A final aspect of the present work was its focus on both direct and indirect aggression. Behaviors classified as direct aggression are typically overt and include hitting, kicking, and teasing another person, whereas indirect aggression is more covert, with behaviors such as excluding, ignoring, and rumor-spreading falling under this heading[1] (Rigby, 1996). Research in the field of childhood aggression has consistently supported the distinction between these two forms of aggressive behavior, with both exploratory and confirmatory factor analyses of relevant scales revealing direct and indirect aggression items to load on two separate factors (e.g., Bjorkqvist, Lagerspetz, & Kaukiainen, 1992; Crick, Casas, & Mosher, 1997; Crick & Grotpeter, 1995; Lagerspetz, Bjorkqvist, & Peltonen, 1988; Vaillancourt, Brendgen, Boivin, & Tremblay, 2003).

Differing age-related trajectories for each form of aggressive behavior have also been proposed. For example, whereas the broad socialization perspective suggests that aggression is likely to decrease with age, as children learn to comply with the norms of society (Huessman & Miller, 1994), other authors have argued for more specific effects. In particular, it has been proposed that, with age, children increasingly recognize that direct forms of aggression are inappropriate, replacing these with more covert, indirect forms instead (Tremblay, 1999). In a similar vein, Bjorkqvist et al. (1992) posited that the use of different types of aggression varies depending on the individual's cognitive maturity. A shift from direct to indirect forms of aggression was again proposed, with direct aggression expected to decrease, and indirect aggression increase, as children progress through middle childhood. Although not all research has provided support for these perspectives (for example, Crick (1997), utilizing a sample aged from 9 to 12 years, found no significant effects of grade for either type of aggression), a number of studies, considering a broader age range (i.e., from 2 to 15 years overall), have revealed the expected changes (e.g., Cairns, Cairns, Neckerman, Ferguson, & Gariepy, 1989; Côté, Vaillancourt, Barker, Nagin, & Tremblay, 2007).

Several studies specifically examining the group processes underlying aggression also highlight the importance of distinguishing between direct and indirect forms of aggression. For example, Nesdale et al. (2008) found an interaction between age, norms and type of aggression. Direct but not indirect aggression was influenced by group norms amongst 7-year-olds, whereas the reverse was the case amongst

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[1] These latter behaviors have been variously labeled as "indirect aggression", "relational aggression" or "social aggression". A recent study by Coyne, Archer, and Eslea (2006) indicated that there is considerable overlap between these concepts and thus, throughout the article, "indirect aggression" will be used to refer to this type of aggression.

9-year-olds. Nipedal et al. (2010) also reported school norms to differentially affect direct and indirect aggression, depending in part on the age of the participant. Thus, considering direct and indirect aggression separately in the current study allowed for further analysis of the similarities and differences in the group processes associated with these distinct behaviors.

Overview of the current study

The study utilized a minimal group paradigm, in which participants were asked to role-play participating in a team (i.e., the in-group) for an inter-school drawing competition. As is typical when utilizing this methodology, the group's existence, and the child's membership in it, lasts for only a brief period. Nevertheless, studies employing this method to investigate group phenomena (e.g., Nesdale & Flesser, 2001) have obtained findings remarkably similar to those achieved in studies where children have been randomly assigned to groups in naturalistic settings and the effects of the group assignment observed over a period of weeks (e.g., Bigler et al., 1997; Bigler et al., 2001). Such similarity supports the external validity of the minimal group methodology.

This simulation paradigm has also been used in a number of previous studies investigating the group processes underlying childhood aggression (Nipedal et al., 2010) and bullying (Duffy & Nesdale, 2010; Nesdale et al., 2008), and allows for the manipulation of variables of interest. In the current study, once children had been assigned to their group for the drawing competition, they were provided with information about the norms of the group (i.e., helping versus aggression), as well as their position within it (i.e., prototypical versus peripheral–prototypical versus peripheral).

As it would be ethically irresponsible to assess the effects of these manipulations on actual aggressive behavior, the participant's direct and indirect aggression intentions towards a competing team (i.e., the out-group) were instead subsequently measured. In order to explore the effects of age, the sample was divided into two groups; those in the early stages of middle childhood and those in the late stages of this developmental period. In addition, as sex differences in both direct and indirect aggression have been reported previously in the literature (e.g., Crick, 1997; Crick & Grotpeter, 1995; Lagerspetz & Bjorkqvist, 1994; Lagerspetz et al., 1988; Little, Jones, Henrich, & Hawley, 2003; Tremblay, 1999), sex was controlled for in the analyses.

Drawing on a social identity perspective, the following hypotheses were evaluated:

1) Children assigned to a group with a norm of aggression would report greater aggressive intentions than would children assigned to a group with a norm of helping.
2) Group norms and intra-position would interact to affect aggressive intentions, such that:
   (a) When the group norm was aggression, prototypical and peripheral–prototypical group members would report greater aggressive intentions than peripheral group members.
   (b) When the group norm was helping, prototypical and peripheral–prototypical group members would report fewer aggressive intentions than peripheral group members.

This pattern was expected to occur for both the younger and older age groups, although the effects were expected to weaken with increased age. Whether the same pattern occurred for both direct and indirect aggression was also examined.

Method

Participants

The sample for the study comprised 247 Anglo-Australian children (122 males and 125 females). These children were recruited from seven elementary schools located in middle-class urban suburbs of South-East Queensland, Australia. Participants were enrolled in Grades 1 to 6 and ranged in age from 5.50 years to 11.83 years ($M = 8.12$ years, $SD = 1.76$). For comparison purposes, the sample was divided into two age groups utilizing a median split. The younger age group, or the early middle childhood group, consisted of 122 children (62 males and 60 females), ranging in age from 5.50 to 7.92 years ($M = 6.72$ years, $SD = 0.60$). The older age group, or the late middle childhood group, consisted of 125 children (60 males and 65 females), aged from 8.00 to 11.83 years ($M = 9.70$ years, $SD = 1.22$). All participants received parental permission to take part in the study, and indicated their own assent to participation.

Materials

Photos

Sets of photos, used to represent the in-group (i.e., the child's team) and the out-group (i.e., the competing team) were created for the current study. The photos utilized in these sets were drawn from a pool of photos developed by Nesdale, Maass, Griffiths, and Durkin (2003). This pool consisted of head-and-shoulder color photos of Anglo-Australian children, who were matched for expression (not smiling) and attractiveness (moderate). Each photo was 15 cm × 11 cm in size.

For each set, five photos were selected from the photo pool. Two of these were used to represent the in-group (with the participating child's own photo to be added at a later stage) and three were used to represent the out-group. The photos were presented on an A4 sheet of paper, in landscape orientation, with the in-group photos placed on the top half of the sheet and the out-group photos placed on the bottom half of the sheet.

For each participant, the set of photos used was matched to their age, sex and ethnicity. The sets also differed based on the intra-group position condition to which the participant had been randomly assigned. For children in the prototypical condition, one in-group photo was placed on the left-hand side of the A4 sheet and one was placed on the right-hand side, with a space in the middle for the participating child's photo. For both the peripheral and peripheral–prototypical conditions, the in-group photos were placed side-by-side on the left-hand side of the page, with a space on the right-hand side for the participant's photo. These placements were used in order to provide the participants with a visual representation of their current position within the in-group.

Aggressive intentions scale

Participants' aggressive intentions were assessed using a measure developed by Duffy and Nesdale (2010). This measure consists of four vignettes, each of which describes an incident that occurs on the day of the drawing competition in which the participant is to be involved. The purpose of these vignettes is to provide participants with hypothetical situations to which they can respond with direct and/or indirect aggression.

For example, the first vignette described the following situation:

Today is the day of the drawing competition. You arrive at the school where the competition is being held and find the other members of your team. You all sit down at the table you will be working at. Next to you is the table that the other team will be using. No one is there yet. As the starting time for the drawing competition gets closer, you see one of the members of the other team arrive. After sitting alone for a few minutes, the child from the other team looks at your team and says "hello".

Each vignette was followed by four items. One item assessed direct aggression intentions and one assessed indirect aggression intentions. The remaining two items were filler items. For example, for the

vignette presented above, the direct aggression item asked how likely it was that the participant would "say something mean about the other team", the indirect aggression item asked how likely it was s/he would "ignore the person who said 'hello' and keep talking to your team" and one of the filler items asked how likely it was that s/he would "ask them to come and sit with your team until someone from their team arrives". All items were rated on a scale ranging from 1 =*very unlikely* to 5 = *very likely*.

As four vignettes were presented to participants, four items in total were used to assess direct aggression intentions and a further four were used to assess indirect aggression intentions. Previous factor analysis of these items has confirmed the distinction between these two subsets of items (Duffy & Nesdale, 2010). Duffy and Nesdale have also shown the scale to have adequate internal consistency, obtaining Cronbach alphas of .85 for the Direct Aggression subscale and .74 for the Indirect Aggression subscale. In the current study, the corresponding values were .74 and .75, respectively.

In order to obtain total scores for the Direct and Indirect Aggression subscales, relevant item scores from the four vignettes were summed. Possible scores on each subscale ranged from 4 to 20, with higher scores indicating greater intentions to aggress.

Procedure[2]

All students in Grades 1 to 6 at the participating schools were asked by their teachers to draw a picture of themselves on a 145 mm × 210 mm piece of paper. The children were also told that, during the next couple of weeks, some visitors would be coming to the school to look at their drawings, if their parents had given them permission to participate in the current study.

One week later, an individual testing session, lasting approximately 15 min, was carried out with each participant. After obtaining permission from the child, the interviewer first took a head-and-shoulders photo of the participant. The child was then asked to pretend that, on the basis of the self-portrait they had previously produced, they had been placed in a team with children from several other schools for an inter-school drawing competition.

In order to make the in-group seem more desirable, and be one to which the child would want to belong, the status of the in-group was enhanced by telling the participant that an artist had judged all the drawings and considered their drawing to be excellent. They were also informed that, based on this judgment, they had been placed in a team with other excellent drawers.

At this time, the photos of the two other in-group members, matched to the participant on age, sex and ethnicity, were revealed. The child was told that these two children comprised his/her team. The child's own photo was then placed with the photos of their teammates. Specifically, for children randomly assigned to the prototypical condition, their photo was placed in between those of their teammates. For those randomly assigned to the peripheral and peripheral–prototypical conditions, their photo was placed to the right of the other two photos.

The child was then told that each team had a color for a name and that they could choose the name for their team. The color the child selected was written on a small piece of paper and attached to the photo board. The participant was also given a gold star to place next to their team, to indicate that their team consisted of excellent drawers.

Information regarding the group norm and intra-group position manipulations was then presented. For group norms, children randomly assigned to the *helping norm* condition were told that:

"From talking to your other team members, I can tell that the kids in your team like people in other teams. Your team is friendly and

likes to help other kids and make them feel good even if they are in the other team."

In contrast, children randomly assigned to the *aggression norm* condition were told that:

"From talking to your other team members, I can tell that the kids in your team don't like other kids. Your team sticks together and if your team doesn't like other kids, they are prepared to tease them, take their things away from them, or not let them join in any games."

For the intra-group position manipulation, participants randomly assigned to the *prototypical* condition were read the following statement:

"From talking to you and the other members in your team, I think that you will find your team is OK and that you will be a lot like the other members. So, you will agree a lot with them. You will be one of the main members of your team."

Children in the *peripheral* condition were told that:

"From talking to you and the other members in your team, I think that you will find your team is OK, although you will not always agree with your team members. You will be a bit the same and a bit different to the other members, so you will be more on the edge of the group."

Finally, children randomly assigned to the *peripheral–prototypical* condition were told that:

"From talking to you and the other members in your team, I think that you will find your team is OK, although you will be a bit the same and a bit different to the others. But you will agree a lot with the team, and you will become one of the main members."

Following the presentation of this information, the photos of the three out-group members were revealed. The researcher also informed the participant of the name of this team. This was simply a color that differed from the in-group name and was chosen by the researcher at the time. To complete the status enhancement of the in-group, the participant was also told that an artist had looked at the other team's drawings and said they were just OK (rather than excellent).

The child's attention was then directed to the questionnaire booklet that contained the vignettes and their associated items. Initially, the child was shown, and worked through, several practice items in order to become familiar with using the response options. The first vignette was subsequently read aloud to the child, who then responded to the four items that followed. This procedure was repeated for the remaining three vignettes.

After completing all of the items, the child was thanked for their participation. The fact that the activity had been a pretense was again emphasized. The child was then given their photo and returned to the classroom.

Results

The participant's direct and indirect aggression scores were analyzed in a 2 (age: younger versus older) × 2 (group norm: helping versus aggression) × 3 (intra-group position: prototypical versus peripheral-prototypical versus peripheral) × 2 (type of aggression: direct versus indirect) mixed ANOVA, with repeated measures on the last factor.[3] To control for possible sex differences in direct and

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[3] The inclusion of type of aggression as a repeated measures factor in the analysis allowed for the statistical comparison of the processes underlying these two types of aggression. Any significant effects that include type of aggression indicate that the pattern of results differs across direct and indirect aggression. In contrast, any significant effects that do not include type of aggression collapse across the repeated measures factor and refer to an overall level of aggression.

indirect aggression, sex was also included as a covariate in the analysis. However, this effect was not found to be significant, $F(1, 234) = 1.74$, $p = .188$.

Overall, the analysis revealed significant main effects for *type of aggression*, *age*, *group norms*, and *intra-group position* (see Table 1). Specifically, participants reported significantly greater indirect than direct aggression intentions, younger children reported significantly greater aggressive intentions than older children, and those assigned to the aggressive norm condition reported significantly greater aggressive intentions than those assigned to the helping norm condition. For intra-group position, post hoc analyses using Duncan's Multiple Range Test ($p < .05$) showed that the aggressive intentions of peripheral–prototypical members were significantly greater than those of peripheral members. However, the prototypical condition did not differ from either of the other two conditions.

The analysis also revealed significant interaction effects that qualified these main effects. First, a significant *age × type of aggression* interaction occurred, $F(1, 234) = 8.24$, $p = .004$, $\eta_p^2 = .03$. The cell means for this interaction are presented in Table 2. Comparison of these means using Duncan's Multiple Range Test showed that both age groups scored significantly higher on the Indirect than the Direct Aggression subscale. In addition, when compared to the older children, the younger children reported greater direct and indirect aggressive intentions, with the difference between the two age groups being larger for the latter form of aggression.

A significant *group norm × type of aggression* interaction was also found, $F(1, 234) = 4.59$, $p = .033$, $\eta_p^2 = .02$. As shown in Table 3, Duncan's Multiple Range Test revealed that, when compared to those assigned to the helping norm condition, children in the aggression norm condition reported greater direct and indirect intentions. This difference was more marked for direct than indirect aggression.

Two additional two-way interactions were also found to be significant: *age × group norm*, $F(1, 234) = 15.05$, $p < .0005$, $\eta_p^2 = .06$, and *group norm × intra-group position*, $F(2, 234) = 3.26$, $p = .040$, $\eta_p^2 = .03$. These were further qualified by a significant *age × group norm × intra-group position* interaction, $F(2, 234) = 4.00$, $p = .002$, $\eta_p^2 = .03$ (see Table 4). Duncan's Multiple Range Test was again used to compare cell means. This analysis revealed that, for younger children in the aggression norm condition, prototypical and peripheral–prototypical members did not differ in their aggressive intentions. However, both reported greater aggressive intentions than peripheral group members. For younger children in the helping norm condition, no significant differences were found between the prototypical, peripheral–prototypical, and peripheral group members. For older children, the comparison of cell means revealed no significant differences. In other words, neither group norms nor intra-group position influenced older children's aggressive intentions.

Table 1
Statistics for the main effects.

Variable	Mean	SD	Significance test
Type of aggression			
Direct	6.66	3.43	$F(1, 234) = 149.68$,
Indirect	10.61	4.55	$p < .0005$, $\eta_p^2 = .39$
Age group			
Younger	9.49	4.47	$F(1, 234) = 21.37$,
Older	7.70	3.10	$p < .0005$, $\eta_p^2 = .08$
Group norms			
Helping	7.52	3.09	$F(1, 234) = 31.22$,
Aggression	9.68	4.35	$p < .0005$, $\eta_p^2 = .12$
Intra-group position			
Prototypical	8.90	4.08	$F(2, 234) = 5.84$,
Peripheral–prototypical	9.22	4.29	$p = .003$, $\eta_p^2 = .05$
Peripheral	7.68	3.41	

Table 2
Cell means (and standard deviations) for the age × type of aggression interaction effect.

	Age group	
Type of aggression	Younger	Older
Direct	7.21 (4.00)$_b$	6.10 (2.54)$_a$
Indirect	11.78 (4.95)$_d$	9.30 (3.66)$_c$

Note. Means that do not share the same subscript are significantly different, Duncan's Multiple Range Test, $p < .05$.

Discussion

In an effort to understand the mechanisms underlying the peer group's role in childhood aggression, several recent studies have applied a social identity perspective to the problem (Duffy & Nesdale, 2009, 2010; Nesdale et al., 2008). The current study aimed to extend this work by further exploring the associations between group norms, intra-group position and children's aggressive intentions, for those in early and late middle childhood and for direct and indirect aggression.

Social identity processes and childhood aggression

The construct of group norms is central to the social identity perspective, which argues that, once an individual comes to view him- or herself as a member of a particular group, he or she will begin to display attitudes and behaviors that are in accordance with the norms of the group (Turner, 1982). Moreover, SIDT proposes that, during childhood, group norms are one factor that can cause a shift from in-group preference to out-group hostility. Studies by Nesdale and colleagues (Duffy & Nesdale, 2009, 2010; Nesdale et al., 2008; Ojala & Nesdale, 2004), that have focused on children ranging in ages from 6 to 14 years, have supported this view, showing group norms to be influential in determining children's attitudes towards, and involvement in, aggression. The current study adds further weight to this evidence. That is, in line with the first hypothesis, group norms were found to be linked to aggressive intentions, with children who were assigned to a group with an aggressive norm reporting greater aggressive intentions than those who were assigned to a group with a helping norm.

A question that remains unanswered by this study, however, is whether the difference between the aggressive and helping norm conditions is a result of the aggressive norm increasing children's aggressive intentions, the helping norm decreasing children's aggressive intentions, or a combination of both. Given that the study was designed in such a way as to make the in-group desirable (i.e., by enhancing the status of the in-group in comparison to the out-group), the social identity perspective would argue that children should be motivated to maintain group membership (Tajfel & Turner, 1979), making conformity to norms equally likely in each of the norm conditions. Further research is required to confirm this proposition (e.g., by including a neutral condition in which children are given no information about the norms of their group). Nevertheless, regardless of the explanation for the effect, it should be kept in mind that the results of the current study clearly showed that, of the two norm conditions,

Table 3
Cell means (and standard deviations) for the group norm × type of aggression interaction effect.

	Group norm	
Type of aggression	Helping	Aggression
Direct	5.32 (1.88)$_b$	8.00 (4.04)$_a$
Indirect	9.71 (4.30)$_d$	11.36 (4.66)$_c$

Note. Means that do not share the same subscript are significantly different, Duncan's Multiple Range Test, $p < .05$.

Table 4
Cell means (and standard deviations) for the age × group norm × intra-group position interaction effect.

	Age group	
Norms	Younger	Older
Helping norm		
Prototypical	7.42 (3.53)[a]	7.49 (3.01)[a]
Peripheral–prototypical	7.77 (3.08)[a]	7.83 (3.14)[a]
Peripheral	7.79 (2.75)[a]	6.80 (2.85)[a]
Aggression norm		
Prototypical	11.95 (4.42)[b]	8.75 (3.13)[a]
Peripheral–prototypical	13.38 (4.26)[b]	7.88 (3.03)[a]
Peripheral	8.65 (4.16)[a]	7.47 (3.19)[a]

Note. Means that do not share the same subscript are significantly different, Duncan's Multiple Range Test, $p < .05$.

it was the aggressive group norms that were associated with the less desirable behavioral intentions.

With regard to the prediction of an interaction between group norms and intra-group position, this effect was found to be significant, but was qualified by a significant age × group norm × intra-group position interaction. When the two age groups were considered separately, the effects of group norms and intra-group position were found to be specific to the younger children (i.e., those in early middle childhood). For this group, no significant differences were found between the prototypical, peripheral–prototypical and peripheral members of helping groups. However, the prototypical and peripheral–prototypical members of aggressive groups reported greater aggressive intentions than peripheral members. For the older children (i.e., those in late middle childhood), no differences between any of the conditions were found.

Turning first to the younger children, the results obtained for the aggression norm condition were consistent with the predictions drawn from a social identity perspective. Prototypical group members reported more normative intentions than did peripheral members, with the former reporting a greater likelihood of engaging in aggression than the latter. This finding replicates that obtained by Duffy and Nesdale (2010), utilizing a sample aged from 9 to 14 years. However, in an extension of Duffy and Nesdale's work, the current study also revealed that the aggressive intentions of peripheral–prototypical members of aggressive groups exceeded those of peripheral members, reaching a level equivalent to that of those in a prototypical position.

Jetten and colleagues have shown that consideration of the dynamic nature of groups is necessary in order to more clearly understand the attitudes and behaviors of peripheral members. Utilizing adult participants, they found that, compared to those on the periphery who are given no information about their future within the group, peripheral members who anticipate an improved intra-group position report greater in-group bias (Jetten et al., 2002) and are more likely to act in ways that benefit the group (Jetten et al., 2003). In line with this, the findings for the aggressive norm condition show that it is not just a group member's current position, but also their future position, that can be influential in determining aggressive intentions.

The current study is limited, however, by its focus on self-reported aggressive intentions and further research is required to explore whether these findings extend to aggressive behavior. In particular, longitudinal studies of real-life friendship groups, utilizing multi-method assessments, should be conducted. As well as allowing for a focus on aggressive behavior, such work would also mean that the causal direction of the association between intra-group position and aggression could be examined in more detail. The current study showed that, at least amongst children in early middle childhood, anticipating an improved position in an aggressive group led to greater aggressive intentions. However, the question of whether engagement

in such behavior actually results in a more central position in an aggressive group would also be worth investigating.

Amongst the younger age group, the finding that intra-group position was unrelated to aggressive intentions within the helping norm condition also warrants attention. It was predicted that prototypical and peripheral–prototypical members of helping groups would show greater conformity to group norms than peripheral members and thus report fewer aggressive intentions. This was not found to be the case, however, with no differences occurring between the three intra-group position conditions. One possible explanation for this lack of effect relates to the fact that the dependent variable of interest in the study was aggressive intentions. It might well be that the absence of aggressive intentions is not the most appropriate way to determine the extent of helping group members' conformity. Rather, it could be argued that assessing the presence of pro-social behavior would be more fitting.

In contrast to the younger children, the older children revealed no significant differences as a function of being prototypical, peripheral–prototypical, or peripheral group members, in either the aggressive or helping norm conditions. Moreover, when the two group norm conditions were compared at each level of the intra-group position manipulation, no differences were found between the aggressive and helping groups. To some extent, the differing patterns of findings obtained for the two age groups are in line with SIDT's proposition that, as a result of increasing social acumen, the impact of group factors on behavioral intentions should ease with age. However, in other ways, these findings are unexpected as it was anticipated that group norms and intra-group position would still have an influence, albeit weaker, on the aggressive intentions of the older age group.

In part, the lack of significant findings for older children could be explained by the self-presentational concerns of the children involved. As children become older and their social acumen develops, they increasingly engage in self-presentational behavior aimed at controlling the impressions others form of them (Aloise-Young, 1993; Banerjee, 2002; Banerjee & Yuill, 1999; Bennett & Yeeles, 1990). Given that participants in the present study were asked to respond to the aggression items in the presence of an adult experimenter, the older children's greater understanding of the social situation might have led them to be more concerned than the younger children about the impression that the experimenter was forming of them. Consequently, the older children might have been unwilling to report aggressive intentions, regardless of the norms of their team or their position within it.

However, other similar research has shown group norms and intra-group position to be associated with aggressive intentions amongst older children. Utilizing a sample aged 8 to 14 years, Duffy and Nesdale (2010) found that children assigned to an aggressive norm condition reported greater direct and indirect aggressive intentions than did those assigned to a helping norm condition. In addition, prototypical members of aggressive groups reported greater indirect aggressive intentions than did peripheral members. As a younger age group was not included in Duffy and Nesdale's study, any change in the strength of the associations during middle childhood could not be assessed. Nevertheless, the contradictory findings for older children suggest that additional research is needed to clarify the group processes underlying aggression at this age. Although experimental studies could contribute to this effort, a focus on natural friendship groups would also be beneficial.

Age and type of aggression

In addition to the effects already described, several other findings relating to age and type of aggression should be highlighted. For age, results revealed that younger children reported significantly higher aggressive intentions than older children. This was true for both direct and indirect aggression, although the difference between the age groups was somewhat larger for the latter.

These results are inconsistent with the argument that direct aggression should decrease, and indirect aggression increase, with age (Bjorkqvist et al., 1992; Tremblay, 1999), as well as with past studies that have supported such a pattern (Cairns et al., 1989; Côté et al., 2007). Although an age-related decline in direct aggressive intentions was obtained, a corresponding increase in indirect aggressive intentions was not. Rather, the lower scores reported by the older children, as compared to the younger children, support a broader socialization perspective, suggesting that children learn to comply with the norms of society and therefore become generally less aggressive with age (Huessman & Miller, 1994).

In attempting to understand the inconsistent findings across studies, these could, in part, be explained by the differing methodologies employed. Whereas the current study asked children to report their behavioral intentions, studies that have revealed differing age-related trajectories for the different forms of aggression have assessed actual behavior (Cairns et al., 1989; Côté et al., 2007). Thus, as SIDT posits that the continued development of social acumen during middle childhood means that children are increasingly likely to recognize that negative inter-group behaviors are considered inappropriate by significant others, this could explain the greater reluctance of older children in the current study to report aggressive intentions of either kind. Nevertheless, the fact that varied findings regarding the association between age and aggression continue to emerge in the literature suggests that more research is still required.

As mentioned previously, the differing effect of group norms and intra-group position across the two age groups also raises the question as to whether the processes underlying aggression change with age. Additional work is needed to answer this question and such research would benefit from further extensions to the age range studied. A limitation of the studies conducted to date is that the social identity approach to aggression has only been tested with elementary school-aged children. It remains to be seen whether this approach can also enhance understanding of aggression in adolescence.

Finally, turning to type of aggression, children were found to report fewer direct than indirect aggression intentions. This is perhaps unsurprising, given that there is a general tendency for children to view direct forms of aggression (such as physical aggression) as more harmful than indirect forms (Galen & Underwood, 1997). Arguably of greater interest is what the results indicate about the group mechanisms that lie beneath these two types of aggression. Overall, few differences arose in terms of the impact of group norms and intra-group position on direct and indirect aggressive intentions. Indeed, the only difference appeared in relation to group norms, with the impact of norms being more marked for direct than indirect aggression. This pattern of findings suggests a certain degree of overlap in the processes driving these types of behavior. However, it is still recommended that future research consider these two forms of aggression separately, as this would allow other important similarities or differences to be identified.

Practical implications

Although additional work is still required in order to fully understand the group processes underlying childhood aggression, the findings of the current study have implications for the development of interventions aimed at reducing such behavior. Increasingly, the importance of including the wider peer system in intervention efforts, rather than focusing solely on at-risk youth, has been recognized. For example, Boxer, Guerra, Huesmann, and Morales (2005) reported that placing highly aggressive children in a peer group that is typically low in aggression can lead to a reduction in the target child's aggression. An emphasis on peer involvement in intervention is also readily apparent in the literature regarding bullying, a subtype of aggression characterized by its repetitive nature and an imbalance of power between the aggressor and victim (Olweus, 1993). In this field, a range

of programs have been developed that focus on training selected peers as peer supporters (Cowie & Olafsson, 2000; Salmivalli, 2001) and enhancing peer self-efficacy and efforts to intervene when bullying occurs (Kärnä et al., 2011; Stevens, Van Oost, & de Bourdeaudhuij, 2000).

The current work also suggests, however, that interventions need to be extended to focus specifically on the group processes that lie behind peer involvement. As helping group norms were found to be associated with fewer aggressive intentions, when compared to aggressive group norms, targeting the norms of real-life friendship groups should be considered. Efforts to alter group norms could draw on strategies such as the Common Concern method (Pikas, 1989) and the 'no blame' approach (Maines & Robinson, 1991), which require the students responsible for bullying to think of and implement constructive responses to the bullying situation. The KiVa program, an anti-bullying intervention developed in Finland, has incorporated such a strategy, for use when acute cases of bullying come to the attention of teachers (Kärnä et al., 2011; Salmivalli, Kärnä, & Poskiparta, 2011). This technique could also be used more proactively, and involve all friendship groups, in an effort to prevent such instances from occurring. Any shift in group norms that was produced by such a technique should also lead to an attendant reduction in the likelihood of group members viewing aggression as an effective strategy for maintaining or improving their position within the group. When considering the timing of such interventions, the results of the current study also highlight the need for early implementation, as group norms and intra-group position were shown to influence the aggressive intentions of children in the early stages of middle childhood.

Conclusion

The current study provides further evidence for the utility of a social identity approach to childhood aggression. Both group norms and intra-group position were found to contribute to the explanation of aggressive intentions, at least amongst those in early middle childhood. By considering both the current and future position of peripheral group members, the study also represents an important advance in that it begins to capture the dynamic nature of the group. Based on this work, many avenues for future research have been proposed. It is hoped that, by exploring these, a comprehensive picture of the group processes that underlie childhood aggression can be obtained and that this work will ultimately result in the development of more effective interventions.

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