

Evaluations of, and Reasoning about, Normative and Deviant Ingroup and Outgroup

Members: Development of the Black Sheep Effect

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Abstract

Research with adults has demonstrated a “black sheep effect” (BSE) whereby, relative to evaluations of normative group members, ingroup deviants are derogated more than outgroup deviants. The Developmental Subjective Group Dynamics (DSGD) model holds that the BSE should develop during middle childhood when children apply wider social norms. Three hundred and thirty eight 5-12 year-olds judged a normative (socially desirable) and a deviant (socially undesirable) member from an ingroup or an outgroup school. Results confirmed a developmental increase in the BSE, the first time this has been demonstrated. Children’s own evaluations of group members were mediated by their expectations about ingroup peers’ evaluations. In line with DSGD and social domain theories, with age, children’s explanations of peer evaluations for ingroup deviance focused relatively more on loyalty. Practical and theoretical implications for peer inclusion and exclusion are discussed.

Being rejected by peers may be associated with depression, psychological maladjustment, poor academic achievement, violence, and dropping out of school (e.g., Newcomb, Bukowski, & Pattee, 1993; Rubin, Bukowski, & Parker, 1998). Aside from their dispositional aggression or lack of social sensitivity (Crick & Dodge, 1994) why do children sometimes derogate, isolate or reject their peers? The present paper considers two important factors; children's group memberships, and their endorsement of social norms, specifically the development of the black sheep effect (BSE; Marques, Yzerbyt, & Leyens, 1988).

A 'black sheep' is defined in dictionaries (e.g., Collins) as a member of a family or peer group who is considered as undesirable, disreputable or a disgrace. In social psychological research the BSE refers to a more specific phenomenon, describing the finding that "people differentiate more strongly between likable and unlikable ingroup members than between likable and unlikable outgroup members" (Marques, Páez, & Abrams, 1998, p. 128). More generally, the BSE applies to differences in responses to 'normative' group members (who adhere to certain prescriptive norms) versus 'deviant' members (who do not).

Operationally, the BSE arises when there is greater differentiation between the evaluation of normative and deviant ingroup members than between normative and deviant outgroup members (e.g., Marques, Abrams, Páez, & Martínez-Taboada, 1998). This tends to mean that people derogate deviant ingroup members more than any other type of group member. In principle, however, this greater differentiation among ingroup than among outgroup members could be achieved in several ways, including increased positivity toward ingroup normative members or increased negativity toward outgroup normative members.

The present study will explore whether the BSE emerges during middle childhood and examine what pattern it takes. We also examine the relationship between children's own judgments of normative and deviant group members, their beliefs about peers' judgments of those members, and their reasoning about peers' judgments (i.e., their thinking about group

dynamics). We draw on two developmental theories that are concerned with peer exclusion and inclusion; the developmental subjective group dynamics (DSGD) model (Abrams, Rutland & Cameron, 2003), and social domain theory (SDT; Killen, 2007).

Conformity and Group Based Social Exclusion

Sociologists and psychologists have theorized that social order is maintained through group and interpersonal dynamics that reinforce important social norms, rules and laws (Durkheim, 1951; Simmel, 1955). Unsurprisingly, even young children are sensitive to social pressure and risk of exclusion. They are motivated to conform even when they are confronted by an objectively incorrect consensus (Corriveau & Harris, 2010). The experience of exclusion is aversive because it threatens children's basic needs for belonging, control, meaning and esteem (Abrams, Weick, Colbe, Thomas & Franklin, 2011; cf. Kurzban & Leary, 2001).

Category membership is a powerful basis for social inclusion and exclusion of others. Biases towards ingroup categories mean that children are more inclusive towards ingroup than outgroup members even if they know little about the behavior of those members. Children express biases across many types of group membership, including those defined by nationality, ethnicity, or school (Barrett, 2007; Dunham, Baron, & Carey, 2011; Verkuyten & de Wolf, 2007). Children also express intergroup bias when they have been assigned or categorized as members of ingroups and outgroups that are ad hoc, such as temporary teams that have been assembled for a particular game or purpose (Bigler & Liben, 2007), and when they judge members of minimal groups (e.g., Vaughan, Tajfel, & Williams, 1981), i.e., groups based on categories that have a random basis, have no history, and whose members have no prior interpersonal relationships or interdependence (see Gagnon & Bourhis, 1996).

The propensity to express intergroup bias changes with age (Degner & Wentura, 2010). Different group biases peak and abate at different ages (e.g., gender and nationality;

Barrett, 2007; Lamb, Bigler, Liben, & Green, 2009). Biases may be expressed via positive responses to the ingroup, negative responses to the outgroup, or both. Positive ingroup responses seem to develop earlier than negative outgroup responses (Nesdale, 2008).

Regardless of age, trends in particular intergroup biases may also be manifested in ways that are more subtly and carefully targeted, as children learn when and where it might be socially acceptable or appropriate to express bias. Thus an important factor is children's sensitivity to social norms. For example, children may be responsive to school norms that prescribe positive behavior toward others, and these norms may prevent children from expressing negativity towards outgroup members (Nesdale & Lawson, 2011; Rutland, Cameron, Milne, & McGeorge, 2005). Much prior research has focused on responses to ingroups versus outgroups as a whole, or toward individual members that are assumed to be representative of their respective groups. However, adult research on the black sheep effect highlights that intergroup bias can also be manifested via expressions of positivity or negativity toward normative and deviant members within the *same* group. Intergroup bias can be manifested by selectively favoring or derogating individuals to reinforce the more positive standing of the ingroup or less positive standing of the outgroup (depending on which is being judged), an example of which is the BSE. The BSE among adults has been explained by the theory of subjective group dynamics (Marques, Páez, & Abrams, 1998).

Subjective Group Dynamics

Prescriptive norms define attitudes or behaviors that are required and expected by others (e.g., to say thank you when receiving a gift). Adult small group dynamics research shows that salient prescriptive norms create psychological pressure to conform. Conformity strongly affects reactions from other members (Schachter, 1951; Zdaniuk & Levine, 2001).

According to subjective group dynamics theory people mobilize psychological resources to defend or advance their social identity (e.g., membership of a relevant social

group). Even in situations when direct comparisons are not made between groups social identity can be affirmed by focusing on differences within groups. People are especially vigilant for intragroup differences because they are motivated to establish the positive value and validity of ingroup norms. This is achieved by selectively upgrading group members who conform to prescriptive *ingroup* norms relative to those who deviate from those norms.

Oppositional and generic norms. Manifestations of subjective group dynamics may depend on whether prescriptive norms are oppositional or generic. Oppositional norms exist when ingroups and outgroups hold opposing views or competing goals. Support for the norms of one group implies rejection of the norms of the other group. When oppositional norms are salient subjective group dynamics can result in a preference for outgroup deviant members over outgroup normative members, an effect that can yield a cross over interaction effect such that normative ingroup and deviant outgroup members are evaluated more favorably than both deviant ingroup and normative outgroup members. For example, people strongly favor (deviant) members of rival organizations if those members endorse the perceiver's ingroup (Abrams, Marques, Bown, & Henson, 2000).

Generic norms exist when the *same* prescriptive norm applies across ingroups and outgroups (or generally in society). In this situation, people will favor normative members more highly than deviants both when they are judging ingroup members and outgroup members. The BSE occurs because it is especially important to people to validate the *ingroup* by confirming that it adheres to generic norms. Moreover, the ingroup's standing may also be enhanced indirectly by devaluing outgroups' conformity to these standards (Marques et al., 1998). Therefore, the difference in positivity toward normative versus deviant individuals should be larger when people judge ingroup members than when they judge outgroup members. This can account for the divergent interaction pattern that characterizes the BSE.

The important characteristic of the BSE is not the absolute level of evaluation of the

normative and deviant members. It is that the difference between these two evaluations is larger when people evaluate ingroup members than when they evaluate outgroup members. Thus, either directly or indirectly, the ingroup's adherence to generic norms is reinforced.

The Development of Subjective Group Dynamics

Our first aim is to assess the development of the BSE – a manifestation of subjective group dynamics. Developmental predictions are framed by the developmental subjective group dynamics (DSGD) model (Abrams & Rutland, 2011), which holds that during middle childhood subjective group dynamics become increasingly sophisticated as children learn to reinforce ingroup identity by selectively favoring particular individuals within groups. The BSE is characterized in terms of intragroup differentiation between normative and deviant members, but we also consider whether it is more strongly based on evaluations of particular types of group member. Evaluations of ingroup members and outgroup members may follow different developmental patterns (e.g., ingroup positivity develops prior to outgroup negativity (cf. Nesdale, 2008). Therefore, we consider whether the BSE is affected more by lowered positivity toward outgroup normative members, by lowered positivity toward ingroup deviant members, or both. We also consider whether the BSE is driven by greater positivity toward ingroup normative members or less negativity toward outgroup deviants, even though subjective group dynamics theory does not specifically predict these effects.

Our second aim is to examine children's expectations about peers' responses to normative and deviant group members. The DSGD model focuses on how evaluations of group members are linked to emerging expectations and reasoning about group dynamics, such as peer pressure and group norms. Our third aim is to draw on the DSGD model and social domain theory to examine the explanations and reasoning that children use about peers' responses to normative and deviant members of ingroups and outgroups.

The DSGD model has been tested in situations involving oppositional ingroup and

outgroup norms of loyalty (Abrams et al., 2003; cf. Castelli, Tomellieri, & Zogmeister, 2008). Children are keenly aware of oppositional norms (Abrams, 2011). They readily favor disloyal outgroup members over loyal outgroup members, and sometimes favor disloyal outgroup members above disloyal ingroup members (Abrams & Rutland, 2011). Selective evaluation of normative and deviant group members becomes more systematic during middle childhood. Abrams, Rutland, Pelletier, and Ferrell (2009) examined English children's evaluations of group members in the context of an England/France soccer competition. Derogation of deviant (disloyal) ingroup members, and favorability to deviant (disloyal) outgroup members, became more systematic between the ages of 5 and 11. The DSGD model holds that with age, children gain better insight into group dynamics. This is because they can engage in more advanced social perspective taking, and because they gradually gain more direct experience of groups, from which they can extrapolate and anticipate dynamics in new groups. Consistent with this, judgments about peers' responses to normative and deviant members were associated with perspective taking ability and group membership experiences.

The DSGD model predicts more systematic intragroup differentiation with age but it does not assume there should be a developmental trend for expressions of intergroup bias (evaluation of the whole ingroup compared with the whole outgroup) because norms about expressing biases against different outgroups can be different. For example, two studies showed similar developmental subjective group dynamics; intergroup bias decreased with age in one and increased with age in the other (Abrams et al., 2003; 2009, respectively).

As far as we are aware, the DSGD model has yet to be tested when the ingroup and outgroup share the *same* norm (a generic norm) rather than holding oppositional norms. When generic norms are relevant, subjective group dynamics should result in a BSE. Children should evaluate normatives more positively than deviants, and differentiate more between ingroup normatives and deviants than between outgroup normatives and deviants.

Because subjective group dynamics emerge and strengthen during middle childhood, in the context of prescriptive generic norms, the BSE should also emerge or strengthen. Younger children may evaluate an individual's behavior as good or bad based on its fit with a prescriptive generic norm, regardless of the individual's group membership. They may also judge the ingroup as a whole more positively than the outgroup as a whole, but these effects may only be additive – producing main effects. Older children should be more likely to recognize that a deviant harms the image of the deviant's group. Thus, with age, children should be more concerned and respond more negatively if that deviant is an ingroup member. Moreover, a deviant outgroup member may indirectly confirm the outgroup's lower standing whereas a normative outgroup member poses greater threat to the ingroup. Thus, with age, intergroup bias may be expressed as less positive evaluation of the normative outgroup member, as in previous developmental research (Nesdale, 2008).

In summary, when evaluating group members in the context of a generic norm we expect that with age children will differentiate ingroup normative members from ingroup deviants by derogating deviants more. They may also differentiate less between outgroup normative members and outgroup deviants by becoming less positive toward normative members. With age these effects should be more likely to result in an interaction between targets' group membership and level of conformity to the generic norm, producing the BSE.

Inferences, Reasoning and Explanations

The DSGD model proposes that children's responses to deviant group members should reflect their perceptions of how peers will judge those members (i.e., the ingroup consensus). We can assess this by asking children how they believe *peers* will feel towards normative and deviant group members. A positive correlation with their own evaluations would support this hypothesized linkage between own judgment and norms.

A second way to examine normative processes is to consider children's spontaneous

explanations and reasoning about peer evaluations of normative and deviant group members. Both the DSGD model and SDT hold that reasoning about group dynamics of inclusion and exclusion may change with age. The DSGD model holds that explanations and reasoning about peer responses to deviants should focus increasingly on issues of group membership, group functioning, and loyalty. This is because older children should be more attuned to the social dynamics in the group and the importance of group consensus. Abrams et al. (2009) examined children's explanations about peer evaluations of (nationally) loyal and disloyal group members (in the context of oppositional norms). Children's expectations of peer inclusion were associated with more references to group membership and loyalty. The present study examines whether the same is true in the context of generic norms.

SDT offers a fuller framework for analyzing moral reasoning, which we now apply to reasoning about peers' reactions to deviance from generic norms. Specifically, SDT research has analyzed whether children use different principles in reasoning about peer inclusion or exclusion. Younger children typically apply moral justifications (e.g., whether it is fair or unfair to exclude). As they get older, children become more likely to invoke psychological explanations (e.g., how it would make someone feel), and social conventional explanations (e.g., how it would affect the functioning of the group or may disrupt a social situation).

SDT and the DSGD model offer complementary accounts of processes that contribute to children's responses to deviance. The DSGD model highlights the relevance of the act for the ingroup. Developmentally, drawing on increasing social perspective taking ability and social experience, children become better equipped to seize on deviance as a vehicle for upgrading the ingroup. SDT highlights developmental changes in the way children reason about acts. With age, children increasingly augment moral reasoning (such as fairness) by deploying social conventional reasoning (such as a concern for group functioning). In addition, reasoning becomes more adapted to the particular context or situation (Killen,

Rutland, Abrams, Mulvey, & Hitti, 2012; Rutland, Killen, & Abrams, 2010).

It is not known whether children may be more or less likely to employ moral or psychological explanations when group members deviate from generic norms in an intergroup context. Therefore the present research extends previous work by examining children's reasoning using both SDT and DSGD coding methods, because both approaches can provide valuable insight into subjective group dynamics. Table 1 shows examples from the present data of reasoning for each category derived from the two approaches.

Overview and Hypotheses

To examine these questions the present research employed a design that closely paralleled studies on the BSE with adults (see Marques et al., 1998). Children from three school year groups (Year), ranging from ages 5 to 11 years old learned about three members of their own school or of another school (Group: Ingroup or Outgroup). Two of the members (Targets) chose to follow a generic prescriptive prosocial norm by attending an important school charity fundraising event (normative targets), and one did not (deviant target). We asked children to evaluate one normative target (gender matched) and the deviant target (also gender matched), to report how they thought peers would evaluate the targets, and to explain these judgments. Our overarching hypothesis is that children will show a BSE (a Group x Target interaction on evaluations of the two targets). This effect will be stronger among older children than younger children, resulting in a Year x Group x Target interaction effect. A developmental BSE would provide convergent support for the DSGD model, showing that it applies when children judge peer adherence to generic norms. If no developmental BSE is obtained, this will raise questions about when and why children respond differently to generic deviance as compared to previous evidence from studies when groups are in opposition.

The DSGD model holds that children's differentiation between normative and deviant group members should be related to their beliefs about how peers will judge those members,

a prediction that is supported in studies of oppositional deviance (Abrams et al., 2003). In the case of generic deviance it seems likely that expectations about peer judgments might carry more weight in the child's own evaluations of ingroup members than in their evaluations of outgroup members. This would be because of the greater self-relevance of the ingroup.

Regardless of the particular pattern of evaluations and perceptions of peer evaluations, SDT predicts that older children will show greater complexity in their explanations of peers' judgments about the targets (Killen, 2007; Rutland et al., 2010). Subjective group dynamics theory in social psychology does not consider whether there would be different types of reasoning about judgments of different group members. However, we expect that there may be different reasons for evaluations of normative and deviant group members (an effect of Target). It seems unlikely that normative behavior will invite dispositional attributions, but deviant behavior seems more likely to do so, as reflected by greater use of psychological reasoning or mention of traits for deviants than for normative members. Moreover, the BSE suggests that these differences may be larger when children reason about ingroup members than when they reason about outgroup members (a Group x Target interaction).

Of central relevance is the development of reasoning drawing on morality, social conventions, groups and loyalty. Based on SDT we expect a general developmental trend such that older children should make less reference to moral justifications and more reference to social convention. The DSGD model would expect age differences to qualify the use of these types of reasoning as a function of targets' behavior and group membership. Older children should have a more complex awareness of group dynamics and be more likely to engage in subjective group dynamics to defend *ingroup* validity. Therefore, we would expect older children to apply explanations for peer inclusion/exclusion more selectively, such that they may refer more to social conventional reasons (group functioning) and loyalty, and less to morality, particularly when explaining peers' evaluations of the deviant targets.

Method

Participants and Design

Participants included 338 children (166 female), aged 6 to 11 years, from two Primary Schools in the South East of England. Six participants were non-White British, and all were residents in a predominantly lower middle class area. Participants were randomly assigned to condition in a 2 (Group: Ingroup or Outgroup) x 2 (Target: Normative or Deviant) x 3 (School Year: 2, 4, 6, corresponding to mean ages, 81, 108, 131 months) design. Group and Year were between-participant factors. Target was a within-participants factor. To manipulate Group, targets were either presented as being a member of the participants' school (ingroup), or as a member of a similar school in the area named Meadow Park school (outgroup).

Pilot interviews established that children would generally expect peers to attend a school charity fair. To manipulate Target, three targets were presented across all conditions, to ensure consistency in comparability. The norm was reinforced numerically by presenting two normative targets, named Emily and Jack. The third target was deviant with a gender neutral name, Alex. Participants judged two gender matched targets; one normative target and one deviant target. Thus, boys judged Jack and Alex whereas girls judged Emily and Alex.

Procedure

Parental consent was obtained via schools, and children were able to withdraw from the study at any time. Children were randomly assigned to conditions and completed a questionnaire. For children in Year 2 (aged 6-7) these were completed via one to one interviews with a female researcher, whereby the child indicated an answer and the researcher scribed. For children in years 4 and 6 the questionnaire was self completed in a classroom environment and the experimenter was available to respond to any questions or ambiguities.

The front page of the questionnaire explained, "Today we are asking children to tell us how they feel about other children who do and do not like going to a school's summer fair.

We will ask some questions about your school and some questions about another school called Meadow Park Primary School. Most of the questions can be answered by putting a tick next to a picture of a face.” An example question (about weather) showed children how to use the 5-point answer scales, with each point represented as an emoticon face, ranging from the mouth in a downward position (1) through horizontal (3) to a large smile (5), as used in previous studies (Abrams, Rutland, Cameron, & Ferrell, 2007).

Measures

Manipulation check and norm check. Children were provided with contextual information about the school’s summer fair, which emphasized the generic norm for attending the school fair. Children read: “Every year [school] organizes a fun summer fair for all the children and parents to go to. Children have fun because there are many fun activities like face painting, a bouncy castle, balloon making, a barbecue, and trampolines. Everybody likes it when all the children come to the school fair, because all of the children work together to raise lots of money for charity.” In order to ensure that the children understood A manipulation check asked, “Why are the children raising money?”. If a child gave an incorrect answer, the experimenter corrected the child in order to have complete data.

The norm for pupils from the ingroup or outgroup to attend the school summer charity fair was then measured. Participants were asked: “How many children from [school] do you think would like to go to the [school name] summer fair?” A 1 to 5 response scale was presented. Each point of the scale was represented by proportionate numbers of stick people, labeled as *None of the children* (1), *A few of the children* (2), *About half of the children* (3), *Most of the children* (4), and *Almost all of the children* (5).

Member information. Next, children viewed the female (Emily) and male (Jack) normative targets, and one gender-matched deviant target (Alex). The DSGD model makes no predictions about the effects of gender so all participants only evaluated same gender

targets, thus avoiding gender as a cross-cutting factor of ingroup/outgroup membership (Abrams et al., 2007). The female normative target, Emily, was described with the statement, “Emily is going to the [school] summer fair because she thinks it is important for the other children and for her school.” The male normative target, Jack, was described with the statement, “Jack is also going to the [school] summer fair because he thinks it will be a fun day.” The deviant target, Alex, was described with the statement, “Alex is not going to the [school] summer fair because s/he would prefer to stay at home.” Each statement was accompanied by a cartoon drawing to represent the respective target. The rest of the questionnaire involved questions about one normative target (Emily for female participants; Jack for male participants) and the deviant target (Alex for all participants).

Own evaluations. As in previous (e.g., Abrams et al., 2009), children answered, “How do you feel about [target]?” by selecting an emoticon face from a 5-step scale (1 = *most negative*, 3 = *neutral*, 5 = *most positive*). They answered, “How much would you like to be [target’s] friend?” by selecting from a sequence of 5 square boxes in ascending size, anchored by the text “*not at all*” (coded 1) and “*very much*” (coded 5).

Peers’ evaluations. So as to measure whether children were able to understand the social implications of each target’s behavior from the perspective of peers they were asked to answer the first evaluative question, but from the perspective of other ingroup children. Specifically, they were asked, “how do you think other children from your school would feel about [normative/deviant target] who [is/is not] going to [school name] fair?”

Reasoning about peers’ evaluations. Children were asked, “Why do you think the other children from your school would feel that way about [normative/deviant target]?” Their answers, written on 3 lines below the question, were later transcribed and coded (1 = present or 0 = absent) for each of the following response categories: Trait, Group, Loyalty, Moral, Social, and Psychological. The coding categories and examples of statements from the dataset

are provided in Table 1. To determine reliability, 20% of the responses were coded by a second independent coder. There was 92% agreement for coding the reasoning about the normative target, and 90% agreement for coding about the deviant target. Due to the high percentage of agreement between raters, subsequent analyses used data from the first coder.

Demographic information. Finally, participants were asked demographic information, including their age in years, birthday, school, year group, gender, and place of birth. Participants' age in months at the time of testing was also calculated.

Results

Norm perception

Children clearly perceived that the majority of group members would like to go to their school fair, $M = 4.59$, $SE = .040$. This was highly and significantly above the scale midpoint 3, $t(335) = 40.01$, $p < .001$. There were no main effects or interactions involving Year, Gender or Condition. This confirmed that the norm was unambiguous and was equally strong in both Group conditions, that is, the norm was generic. As testing the BSE depends on people understanding the norm, those children who perceived that half or fewer group members would like to go to the school fair were excluded from subsequent analyses. This included 22 children (6%) of whom 14 were male.

Own Evaluations

Factor analysis showed that the positivity and liking items loaded together but on different factors for the normative and deviant targets, with loadings $> .79$, and no cross-loadings. Therefore a mean evaluation score (the average of positivity and liking) was computed for each target. ANOVA on this score revealed significant effects of Year, Target and Year x Group x Target (see Table 2).

The effect of Year, $F(2,310) = 10.54$, $p < .001$, $\eta^2 = .064$, revealed that across normative and deviant targets children in Year 2 were more positive ($M = 3.64$, $SE = .077$)

than those in Years 4 or 6 ($M = 3.30, 3.16, SE = .075, .076$, both $ps < .001$ respectively).

Years 4 and 6 did not differ significantly ($p = .213$). The main effect of Target showed that children were more positive toward the normative target ($M = 3.96, SE = .051$) than the deviant target, ($M = 2.77, SE = .064$), $F(1,310) = 260.26, p < .001, \eta^2 = .456$.

The Group x Target interaction was not significant, $F(1,310) = 3.41, p = .066, \eta^2 = .011$. However, it was qualified by a significant Year x Group x Target interaction, $F(1,310) = 5.54, p = .004, \eta^2 = .035$. Central to our developmental hypothesis, the interaction between Group x Target (required for a BSE) should be present among older children. The Group x Target interaction within each age group is shown in Figure 1. Separate ANOVAs within each level of Year showed that the Group x Target interaction was not significant in Year 2, $F(1, 97) = 2.13, p = .148, \eta^2 = .021$, but it was significant in Year 4, $F(1,103) = 7.60, p = .007, \eta^2 = .069$, and in Year 6, $F(1,110) = 6.00, p = .016, \eta^2 = .052$. Because normative targets were always evaluated more positively than deviant targets within both groups and at all three age levels (all $Fs(1,310) > 17.99$, all $ps < .001$), it is most informative to describe the developmental pattern in terms of the effect size for the simple effects of Target (normative vs. deviant) within levels of Group and Age (see Figure 1). In the ingroup condition the difference increased with age, $F_{Year2}(1,310) = 34.25, \eta^2 = .099$; $F_{Year4}(1,310) = 72.10, \eta^2 = .191$; $F_{Year6}(1,310) = 91.62, \eta^2 = .228$. In the outgroup condition the difference reduced with age, $F_{Year2}(1,310) = 57.08, \eta^2 = .155$; $F_{Year4}(1,310) = 21.95, \eta^2 = .066$; $F_{Year6}(1,310) = 17.99, \eta^2 = .055$. In line with the developmental prediction, these divergent patterns produced significant Black Sheep Effects (BSE) in Years 4 and 6 but not in Year 2.

Analyses of simple effects of Year within Group and Target were conducted in order to examine developmental differences in evaluations of each type of target. The data show that normative ingroup targets were evaluated similarly by all three year groups, $F(2,310) = .60, p = .55, \eta^2 = .004$, all pairwise comparison $ps > .33$) whereas for deviant ingroup targets,

$F(2,310) = 4.01, p = .019, \eta^2 = .025$, evaluations were significantly less positive among children in years 4 and 6 than in year 2, pairwise $ps = .044, .006$, respectively), whereas years 4 and 6 did not differ from one another ($p = .57$). In the outgroup condition, there were year differences in evaluations of normative members, $F(2,310) = 13.36, p < .001, \eta^2 = .079$. Children in year 1 evaluated normative members more positively than did children in years 4 and 6 ($ps < .001$), and the latter two did not differ significantly ($p = .50$). Children in all three years evaluated outgroup deviants similarly, $F(2,310) = .89, p = .41, \eta^2 = .006$, (all pairwise $ps > .18$). These data illustrate two components that might contribute to the development of the black sheep effect. First, older children are less positive toward ingroup deviant members, and second they are less positive toward outgroup normative members.

Peer Evaluation

Children judged how negatively or positively other ingroup members would feel towards the normative and deviant targets. There was a significant effect of Target, and a significant Year x Target interaction. Consistent with the generic norm, children expected the normative targets to be evaluated more positively than the deviant targets, $M_{normative} = 4.07, SE = .057, M_{deviant} = 2.15, SE = .066, F(1,307) = 417.71, p < .001, \eta^2 = .576$. The Year x Target interaction, $F(2,307) = 3.62, p = .028, \eta^2 = .023$, revealed that although children in all years expected peers to evaluate the normative target more positively than the deviant (all $ps < .001$), children in Year 2 expected peers to be more positive toward the normative ($M = 4.27, SE = 0.98$) than did those in Years 4 and 6, ($Ms = 3.98, 3.97, SE = 0.98, .099$, respectively, $ps = .038, .033$), whereas children in Years 4 and 6 did not differ. There were no differences between year groups in expectations about peers' judgments of deviant targets (for Years 2, 4, 6 $Ms = 2.02, 2.24, 2.20, SE = 0.12, 0.98, .099$, respectively). The Year x Group x Target interaction was not significant, $F(2,307) = 2.81, p = .062, \eta^2 = .018$.

Differential Own Evaluation and Differential Peer Evaluation

The DSGD model expects children's differential evaluations of normative versus deviant members to be predicted by their expectations and reasoning about peer evaluations of the targets. Based on previous research (e.g., Abrams et al., 2003), we computed two differentiation indexes to test this prediction. The *differential own evaluation* index (DOE) is the child's evaluation of the normative target minus evaluation of deviant target. The *differential peer evaluation* index (DPE) is the child's judgment of ingroup peers' evaluation of the normative target minus their judgment of peers' evaluation of the deviant target.

We expected DOE to be related to DPE. The correlation between the two variables supported this prediction, $r(313) = .30, p < .001$. Because this analysis involved the relationship between two difference scores we covaried the mean perception (i.e., the mean inclusion judgments made about the normative and deviant targets) as advised by Judd, Kenny, and McClelland (2001). Regression analysis showed that the relationship between DOE and DPE remained significant, $\beta = .30, t = 5.38, p < .001$.

We tested whether DPE mediated the effects of Year or Group on DOE as specified by the DSGD model. Using Hayes (2012) procedure for testing indirect effects, with 1000 bootstraps, and controlling for average inclusion; there was a significant indirect effect of Year on DOE through DPE (indirect effect = $-.04, SE = .0169, 95CI -.076/-.010$). This effect indicates that, relative to older children, younger children's higher evaluations of normative targets was also related to younger children's higher expectations that peers would evaluate normative targets positively. We tested for reverse mediation model with year predicting DPE mediated by DOE (controlling for mean own evaluation). As expected, there was no significant reverse mediation (indirect effect = $-.01, SE = .02, 95CI -.06/.02$).

Because DOE was larger in the ingroup than the outgroup condition (corresponding to the BSE) we examined whether the relationship between DPE and DOE would depend on Group condition. Formally, we tested whether the Group condition moderated the

relationship between DPE and DOE (while covarying mean inclusion), using Hayes (2012) PROCESS macro in SPSS. There was a significant interaction between DPE and condition on DOE, $b = -.26$, $SE = .105$, $t = 2.43$, $p = .016$. Tests of the conditional effects showed that DPE was more strongly related to DOE in the ingroup condition, $b = .41$, $SE = .071$, $t = 5.77$, $p < .001$, than in the outgroup condition, $b = .16$, $SE = .078$, $t = 2.00$, $p = .046$. Thus, children's expectations about ingroup peers' evaluations were more closely tied to children's own evaluation of ingroup members than to their evaluation of outgroup members. We tested for the reverse sequence of moderation (i.e. that after controlling for mean own evaluations the relationship between DOE and DPE is moderated by condition). This interaction effect was non significant, $b = -.09$, $SE = .14$, $p = .52$.

Reasoning about Peer Evaluations

Reasons for peer evaluation of targets were coded from text transcripts rather than raw data, and coders were blind to condition. Coders used two coding schemes: The Abrams et al. (2009) coding scheme distinguishes *explanations* for peer judgments, focusing on whether children pay more attention to, i) targets' personal traits, ii) group membership, or iii) loyalty and peer expectations. The SDT (Killen, 2007) scheme focuses on how children judge the correctness of, and justification for inclusion and exclusion, distinguishing reasoning based on, i) fairness/morality, ii) social conventions or rules, and iii) psychological justifications. To avoid redundancy, correlations between all codes were examined. For reasoning about normative targets, all correlations among content codes were below $r = .28$. For reasoning about deviant targets, all correlations among content codes were below $r = .22$, suggesting that codes were sufficiently distinct that each should be analyzed in its own right.

In the light of these preliminary analyses we proceeded to analyze the content codes for children's reasoning using Year x Group x Target (reasoning about normative, reasoning about deviant) repeated measure ANOVAs. These revealed significant main effects of Year

on references to loyalty, morality, social conventional and psychological explanations, and a significant Group x Year interaction on references to groups and loyalty. There were significant effects of Target for mentions of group, social conventional and psychological reasoning, and significant Target x Group interactions on loyalty and social conventional reasoning, and significant Year x Group x Target interactions on loyalty and morality reasoning. For ease of comparison we examine the DSGD and SDT coding schemes in turn. The means for each type of reasoning are shown in Figures 2a and 2b.

Trait, group and loyalty reasons. There were no effects involving mention of *traits* ($M = .127, SE = .014$). Nearly half of the children mentioned the target's *group* ($M = .466, SE = .023$), and more did so if the target was a deviant than a normative member ($M_{normative} = .505, SE = .03, M_{deviant} = .427, SE = .03$), $F(1, 288) = 4.11, p = .044, \eta^2 = .014$. The significant Group x Year interaction, $F(2, 288) = 3.40, p = .035, \eta^2 = .023$, was because more children in Year 2 mentioned the group in the ingroup condition ($M = .54, SE = .06$) than in the outgroup condition, ($M = .35, SE = .06$), $F(1, 288) = 5.29, p = .022, \eta^2 = .018$, whereas Year 4 and Year 6 children were equally likely to mention groups in both conditions.

Loyalty was mentioned quite rarely ($M = .049, SE = .009$). However the significant effect of Year, $F(2, 288) = 6.56, p = .002, \eta^2 = .044$, showed that it was mentioned less by children in Year 2 ($M = .007, SE = .017$) than those in Year 4 ($M = .067, p = .005$) or Year 6 ($M = .081, p = .001$). The Group x Year interaction, $F(2, 288) = 5.97, p = .003, \eta^2 = .040$, and the Group x Target interaction, $F(1, 288) = 6.93, p = .009, \eta^2 = .023$ were qualified by a significant 3 way interaction $F(2, 288) = 3.64, p = .028, \eta^2 = .025$. As shown in Table 1, references to loyalty were similar for normative and deviant targets within Years 2 and 4 across both the ingroup and outgroup condition (all $F_s < 2.24, p > .13$), whereas children in Year 6 were substantially more likely to refer to loyalty when explaining peers' judgments of deviant ingroup members ($M = .205, SE = .029$) than normative ingroup members ($M = .041,$

$SE = .024$), $F(1, 288) = 19.13$, $p < .001$, $\eta^2 = .062$.

Social conventional, psychological and moral reasons. The mean level of *social conventional* explanations was $M = .185$ ($SE = .017$). As predicted by SDT, the significant effect of Year, $F(2, 288) = 6.37$, $p = .002$, $\eta^2 = .042$, showed that social conventional justifications were used less by children in Year 2 ($M = .10$, $SE = .031$) than those in Year 4 ($M = .211$, $SE = .029$, $p = .009$) or Year 6 ($M = .081$, $SE = .028$, $p = .001$). There was also a significant effect of target. Social conventional reasons were given more when the target was normative ($M = .218$, $SE = .025$) than deviant ($M = .153$, $SE = .022$), $F(1, 288) = 4.19$, $p = .042$, $\eta^2 = .014$. There was a significant Group x Target interaction, $F(1, 288) = 4.00$, $p = .047$, $\eta^2 = .014$. This showed that children used social conventional reasons more for an ingroup normative than an ingroup deviant target, ($M_{normative} = .265$, $SE = .033$, $M_{deviant} = .136$, $SE = .028$), $F(1, 288) = 9.45$, $p = .002$, $\eta^2 = .032$), but did not differ in their use of social conventional reasons for outgroup targets, ($M_{normative} = .172$, $SE = .038$, $M_{deviant} = .170$, $SE = .033$), $F(1, 288) = 0.001$, $p = .971$, $\eta^2 < .001$.

The mean level of *psychological reasons* was $M = .289$ ($SE = .020$). A significant effect of Year, $F(2, 288) = 13.30$, $p < .001$, $\eta^2 = .085$ showed that these reasons were given more by children in Year 2 ($M = .437$, $SE = .036$) than those in Year 4 ($M = .232$, $SE = .034$, $p < .001$) or Year 6 ($M = .198$, $SE = .033$, $p < .001$). A significant effect of Target revealed that psychological reasons were given less when the target was normative ($M = .240$, $SE = .024$) than deviant ($M = .337$, $SE = .028$), $F(1, 288) = 8.36$, $p = .004$, $\eta^2 = .028$.

Use of *moral reasons* ($M = .130$, $SE = .015$), differed by Year, $F(2, 288) = 10.16$, $p < .001$, $\eta^2 = .066$. As expected, children in Year 2 gave moral reasons substantially more often ($M = .229$, $SE = .028$) than did children in Year 4 ($M = .077$, $SE = .026$, $p < .001$) or Year 6 ($M = .084$, $SE = .025$, $p < .001$). However, there was a significant 3 way interaction $F(2, 288) = 3.05$, $p = .049$, $\eta^2 = .021$. As shown in Table 1, use of moral reasons was similar

for normative and deviant targets within Years 2 and 4 across both the ingroup and outgroup condition (all $F_s < 1.99$, $p > .16$), whereas children in Year 6 were significantly less likely to use moral reasons when explaining peer's judgments of deviant ingroup members ($M = .027$, $SE = .034$) than normative ingroup members ($M = .205$, $SE = .042$), $F(1, 288) = 14.09$, $p < .001$, $\eta^2 = .047$. In summary, whereas younger children's explanations for peer evaluations were more likely to include moral and psychological reasons, older children were more likely to focus on loyalty, group, and social conventional reasons.

Discussion

Children's propensity to express intergroup bias (Dunham et al., 2011) and their desire to uphold social consensus and norms (Rutland et al., 2005) are potential bases for them to express peer rejection or acceptance. The present research focused on children's selective reinforcement of normative behavior in intergroup contexts. We tested whether and at what part of middle childhood children exhibit the black sheep effect (BSE). The findings clearly uphold the developmental prediction from the DSGD model. The BSE was demonstrated by children aged 8 and above but not by children aged 6 and below. Interestingly, the results showed that the BSE was driven both by increasing negativity toward ingroup deviants and decreasing positivity toward outgroup normatives.

Analyses of children's reasoning showed that those who evaluated normative targets more positively than deviants also expected ingroup peers to share their evaluations. This correlation was larger when they were considering ingroup members than outgroup members. Reasoning about peers' evaluations changed with age, showing more social conventional reasoning, and also selective application of moral reasoning in relation to normative ingroup members and social conventional and group-focused reasoning in relation to deviants.

As far as we are aware, this is the first study specifically testing the BSE in children in a way that is directly comparable with adult research. It provides important convergent

evidence for the general validity of the DSGD model. Specifically, most prior research on children's responses to normative and deviant group members in intergroup contexts has examined their reactions to oppositional deviance displayed by group members who are disloyal (cf. Abrams et al., 2007; 2009; Castelli et al., 2008). In those situations deviants simultaneously detract from their own group and add value to the opposing group. However, the BSE arises when members deviate from *generic* norms, for example by behaving socially undesirably. In this situation both types of deviant detract from their own group. The BSE is important because it shows that people do not bolster their social identity necessarily by favoring all ingroup members over all outgroup members, but that a different route is to selectively evaluate individual group members to endorse a positive image of their ingroup.

The BSE

Subjective group dynamics theory holds that derogation of deviants relative to normatives should be stronger when people judge ingroup members than outgroup members because ingroup deviants pose a greater threat to ingroup value and validity (Marques et al., 1998). As well as supporting this prediction, the present research showed that expression of intergroup bias may also focus on outgroup normative members (cf. Nesdale, 2008). It seems that younger children may treat group membership and deviance as unconnected elements. Only as children get older do they realize that a person's group membership changes the relevance of socially desirable and undesirable behavior. Therefore it makes sense that the BSE emerges later in childhood because it requires children to view such behavior not just in terms of its generic normativeness but in terms of its implications for the image and reputation of the *ingroup* as a group that upholds important social norms.

Interestingly, although the BSE emerges with age, ingroup and outgroup evaluations change differently. When judging ingroup members, older children downgrade deviants more than younger children do. When judging outgroup members, older children downgrade

normative members more than younger children do. The effect of age is descriptively larger on evaluations of outgroup normative targets than on evaluations of ingroup deviant targets but the two effect sizes do not differ significantly (χ^2 , 1 df, = 1.38, p = .423; mean Fisher's Z = .225). These two age patterns are consistent with the idea that older children are more adept at finding ways to differentiate among group members in ways that enhance the ingroup. Although the present study showed the baseline effects predicted by the DSGD model, future research is needed to examine when and why children differentiate among group members by focusing on particular targets, such as by upgrading ingroup normatives rather than downgrading ingroup deviants (cf. Pinto, Marques, Levine, & Abrams, 2010).

Peer Norms and Social Expectations

Beliefs about differential peer evaluation can be conceived of as the subjective perception of normative pressure to engage in differential evaluation oneself (cf. Abrams, 2011). We found that differential evaluations of normative and deviant group members are related to perceptions of *peers'* evaluations of normative and deviant members. Children are sensitive to conformity pressure (Corriveau & Harris, 2010) and social expectations from different sources (Rutland et al., 2005). Subjective group dynamics theory and the DSGD model attach particular importance to people's sense of normative pressure (Abrams et al., 2007; Marques et al., 1998), and normative support (Frings & Abrams, 2010) from ingroup members. Consistent with this, the present research found that age differences in differential evaluations were mediated by perceptions of peers' evaluations.

Also consistent with the DSGD model, own and peer differential evaluation were more strongly related when children evaluated ingroup members than when they evaluated outgroup members. This helps to rule out the idea that own evaluations simply reflected general demand characteristics or more general social expectations. Experimental demand could be consistent with the main effect of Target, in favor of the socially desirable normative

target. However, it cannot explain why relative evaluations of the normative and deviant targets should change with age or interact with the group membership of the target. More importantly, it cannot explain why evaluations were especially tuned to judgments about ingroup peer's evaluations of ingroup targets. Results support the idea that children might be especially influenced by ingroup norms regarding evaluations of ingroup members because ingroup deviance has direct relevance for social consensus within the ingroup, and hence has greater self-relevance. This is consistent with the idea that subjective group dynamics focus on establishing ingroup consensus and validity, converging with evidence that the dynamics strengthen if children believe ingroup members are monitoring them (Abrams et al., 2007).

Adult research does not suggest that the BSE is simply a result of demand characteristics. However, it is of interest to explore whether, and in which age ranges, children's judgments of normative and deviant group members are based on their actual view of those members or their beliefs about the opinions they *should* express about those members. Investigation of the latter point requires systematic variation in the type of audience for their responses (e.g., ingroup peers, outgroup peers, parents, teachers, experimenters, etc.). In the present research no audience was made particularly salient and therefore we cannot be certain whether participants were tuning to their beliefs about a specific audience other than ingroup peers. More research is now needed to explore whether children believe that peers and adults expect them to engage in differential evaluation.

Group Nous and Reasoning about Evaluations

Abrams et al. (2009) proposed that children gradually develop a deeper intuitive understanding of the way intergroup and intragroup relations interconnect, which they labeled "group nous" or social knowhow. Group nous is affected by children's social perspective taking ability and by their direct experience of being a member of different social groups, highlighting that there is an important and perhaps unique role for children's understanding

about group dynamics that goes beyond social skill or empathy (Abrams & Rutland, 2011). The concept of group norms articulates with similar ideas regarding social acumen (Nesdale & Lawson, 2011), social projection (Abrams, 2011), and social reasoning (Killen, 2007; Rutland et al., 2010). For example, social domain theory holds older children are more adept at using reasoning to match demands of different social contexts (Killen 2007).

The present study investigated children's reasoning about peers' evaluations of normative and deviant group members to provide further insight into the development of reasoning about subjective group dynamics. We expected use of loyalty and social conventional reasons to increase, and moral reasons to reduce, with age. Both of these expectations were confirmed, and matched age trends in prior research.

Analysis using the DSGD coding categories revealed that older children focus more on ingroup value and validity. In particular, older children used substantially higher levels of loyalty explanations when reasoning about peer responses to deviant ingroup members (cf. Abrams et al., 2009). Analyses using the SDT coding categories showed that whereas the youngest children used morality (e.g., fairness) judgments predominantly, older children reasoned more in terms of targets' fit with social conventions (e.g., group functioning, rules), and made less reference to psychological processes (e.g., the target's feelings) (cf. Killen, 2007). In contrast, older children used morality reasoning substantially more (and almost exclusively) when explaining the behavior of normative ingroup members (perhaps complementing their use of loyalty explanations for deviant ingroup members). Thus, older children used different types of reasoning selectively and strategically to validate their ingroup identity. It seems likely that older children capitalized on normative ingroup peers to highlight the group's occupancy of the moral high ground, and justified negative evaluations of the deviant in terms of that target's disruption of group functioning. In sum, by the age of 9, children were likely to describe normative ingroup members as being valued by peers for

doing “the right thing” and deviant ingroup members as being devalued by peers because of being “disloyal”. They show a capacity to deploy different types of reasoning to justify social inclusion and social exclusion of different members within the same group. These findings contribute new evidence for social domain theory by showing how the black sheep effect is associated with a distinctive pattern of reasoning about different types of group member.

Future Directions, Limitations and Conclusions

The present research raises interesting questions about children’s processing of social information. Although normative pressures are inherent in most group interactions, implicit biases may exist at the stage of detecting and encoding information about different types of group member. It would be useful to explore what distinctive role implicit biases may play and how, or whether, they are moderated by social demands.

Older children both upgraded normative and downgraded deviant ingroup members more than respective outgroup members, consistent with the idea that they were more concerned to differentiate between the two targets more if they were ingroup members. Generally, people who express greater intergroup bias also show greater differentiation between normative and deviant members within groups (Marques et al, 1998). Even though older children appeared to be more vigilant about the social behavior of ingroup members than outgroup members, this might not always be the case. For example, there might be floor or ceiling effects in evaluations when deviant individuals are unambiguously morally reprehensible, or when normatives are wholly praiseworthy. In these cases children may attend more closely to differentiate other ingroup members, or outgroup members.

The DSGD model focuses on responses to peers who diverge from prescriptive norms. However, deviance may also take forms such as divergence from descriptive or denotative norms (e.g., being a short man or a tall woman), or extremism (e.g., being a fanatic in support of the group). Developmental research has often investigated children’s

judgments of descriptive deviants (who possess counter stereotypical traits) but not determined whether such deviance is also prescriptively deviant. Future research should compare these types of deviance orthogonally. Research has only recently considered how subjective group dynamics change during adolescence, a time when social reasoning becomes more complex, social experience widens and new motivational and maturational factors come into play (Killen et al., 2012). These are important directions to be explored.

As the basis of group membership, the present research used schools that had no prior history of direct competition or conflict. Previous research has shown that school membership is an important and highly meaningful group membership for most children (e.g., Abrams et al., 2007). In line with other BSE research children only directly compared individuals within the same category (school, in this case) and no mention was made of attenders and non-attenders as category labels. However, a possibility is that children might have treated attendance at a fair as a category membership and school as a form of normativeness. We believe this is unlikely because school membership is a stable social category that denotes group membership, whereas attendance at a school fair is a specific behavior (and a prescriptive norm) that any members can choose whether or not to follow.

Prior research with adults shows that a BSE arises readily both with real and artificial groups (Marques, Páez & Abrams, 1998). Moreover the BSE pattern in the present research is highly consistent with findings from previous tests of the DSGD model that used fictitious or real outgroups with oppositional norms (e.g., Abrams et al., 2003; 2007). However, it would be valuable for future research to examine whether the developmental BSE arises even when children judge members of well-established societal groups to which they may already have strongly favorable or unfavorable attitudes (e.g., gender). It would also be useful to explore whether the BSE arises with different forms of deviance from prescriptive norms.

A further limitation is that the present study employed only evaluative and cognitive

measures. Adult research has shown that cognitive and evaluative responses to normative and deviant group members are paralleled by behavioral and even physiological responses (e.g., Frings, Hurst, Cleveland, Blascovich & Abrams, 2012), but the behavioral implications with children remain to be explored in future research.

Conclusion. This research shows that the BSE emerges during middle childhood and that it is associated with expectations about peer evaluations of normative and deviant group members. With age, children's favorable or derogatory evaluations of others who fail to uphold generic norms become more contingent on whether those others are ingroup members. With age children's reasoning about peer judgments of ingroup normative and deviant members also changes. The findings support the DSGD model's proposition that group norms – tacit understanding of group and intergroup dynamics - emerges during middle childhood, presumably helping to equip children psychologically for a complex environment involving varying and multiple group memberships (Abrams et al., 2009).

This research sheds light on children's involvement in their own socialization through the upholding of generic norms via selective responses to different individuals within the same group. The finding that these strategic responses do not emerge until later childhood has implications for the extent to which it may be possible to teach citizenship at earlier ages, and which strategies might be most effective in tackling prejudice at different ages (Lamb et al., 2009). In particular, children may uphold generic norms most of the time, and feel favorable to their ingroups most of the time but they will not necessarily treat all members of a group similarly. As they progress through middle childhood, children may judge being a "good citizen" differently as a function of group membership and salient norms, as well as their own group affiliations. These social developmental changes need to be considered in the strategies used by carers and educators to promote peer group harmony and reduce the incidence of bullying or rejection (Nesdale, Durkin, Maass, Kiesner & Griffiths, 2008).

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Table 1.

Examples of Reasoning and Corresponding Categories Used for Coding Free Responses to the Question 'Why do you think the other children from your school would feel that way about [target]?'.

Category	Example
<p><i>Personal traits</i></p> <p>Includes reference to the target's traits and characteristics</p>	"He would be lazy and not generous"
<p><i>Group membership</i></p> <p>Includes reference to the target's ingroup</p>	"Because he's from a different school"
<p><i>Loyalty</i></p> <p>Includes reference to loyalty or disloyalty towards the group</p>	"Because we think she doesn't care about the school"
<p><i>Moral</i></p> <p>Includes reference to fairness, empathy and integration</p>	"She'll be raising money for charity"
<p><i>Social conventional</i></p> <p>Includes reference to group functioning, social norms or authority</p>	"Because they want everyone to go to it"
<p><i>Psychological</i></p> <p>Includes reference to personal choice, preferences or perogatives</p>	"Because he likes home"

Table 2.

Means for Judgments of Targets as a Function of their Type of Deviance, Group Membership and Normative vs. Deviant Characteristics

School Year	Group	Target	Own		Peer		Loyalty		Morality	
			Evaluations		Evaluations		Reasoning		Reasoning	
			<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
2	In	N	4.07	.121	4.08	.136	.0	.0	.188	.051
		D	3.04	.151	2.13	.165	.0	.0	.188	.042
	Out	N	4.47	.132	4.67	.147	.0	.0	.270	.058
		D	3.00	.166	1.96	.179	.0	.0	.270	.048
4	In	N	4.09	.122	4.19	.137	.021	.029	.042	.051
		D	2.56	.153	2.23	.166	.042	.036	.062	.042
	Out	N	3.69	.123	3.77	.137	.122	.029	.143	.051
		D	2.85	.154	2.15	.166	.082	.035	.061	.041
6	In	N	3.93	.104	3.94	.116	.041	.024	.205	.042
		D	2.47	.130	2.29	.141	.205	.029	.027	.034
	Out	N	3.56	.142	3.97	.158	.077	.033	.051	.057
		D	2.68	.178	2.10	.192	.032	.039	.051	.046

Note: Target: N = Normative, D = Deviant. Evaluations are scored on 1-5 scales. Higher means reflect greater positivity. Reasoning is scored on a 0-1 scale, the mean represents the proportion of participants who used that type of reasoning.

Figure 1. Judgments of the normative and deviant targets as a function of children's age and the targets' group membership.

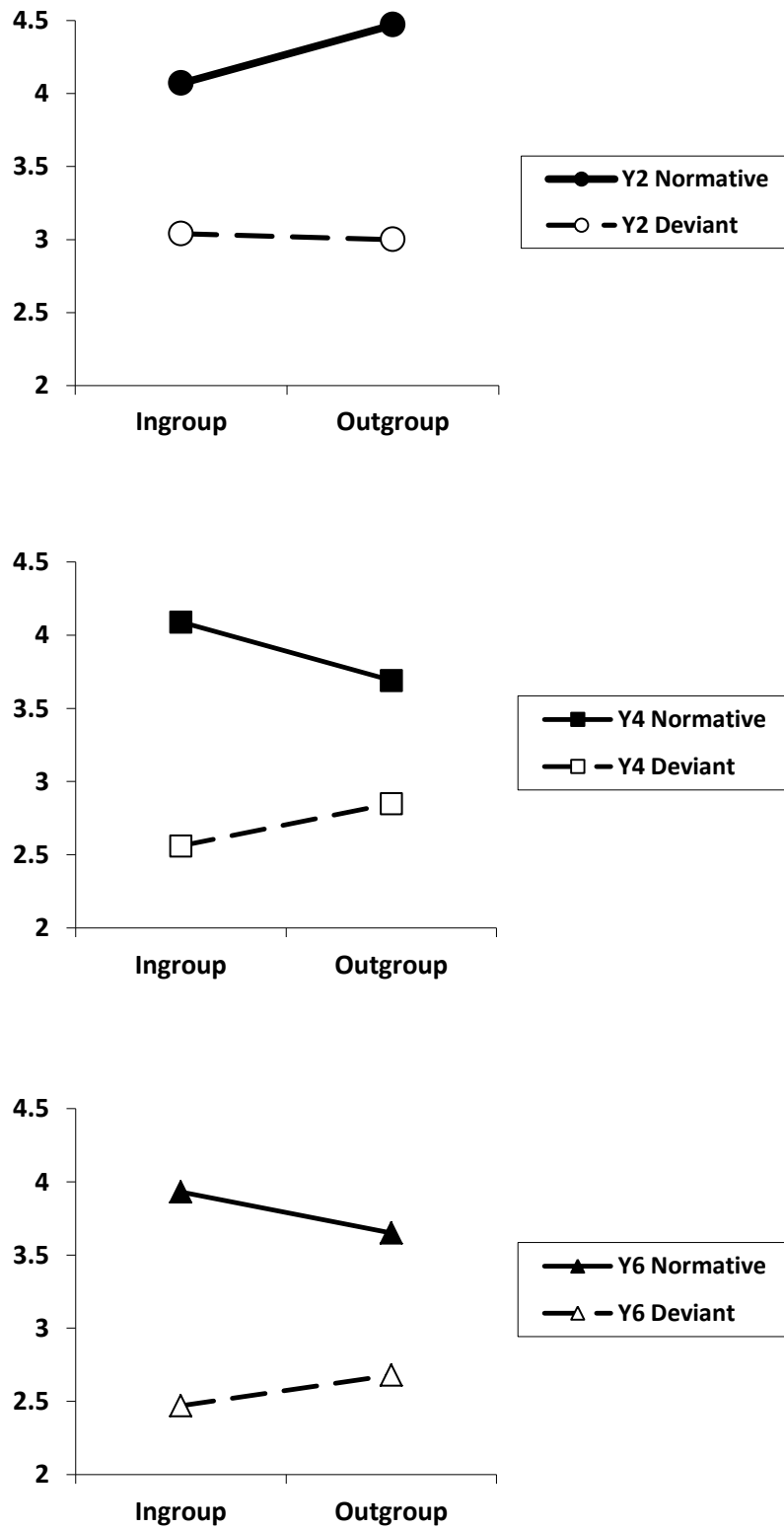


Figure 2a. Proportion of children in each Year Group using Trait, Group and Loyalty

Explanations for Peer Evaluations

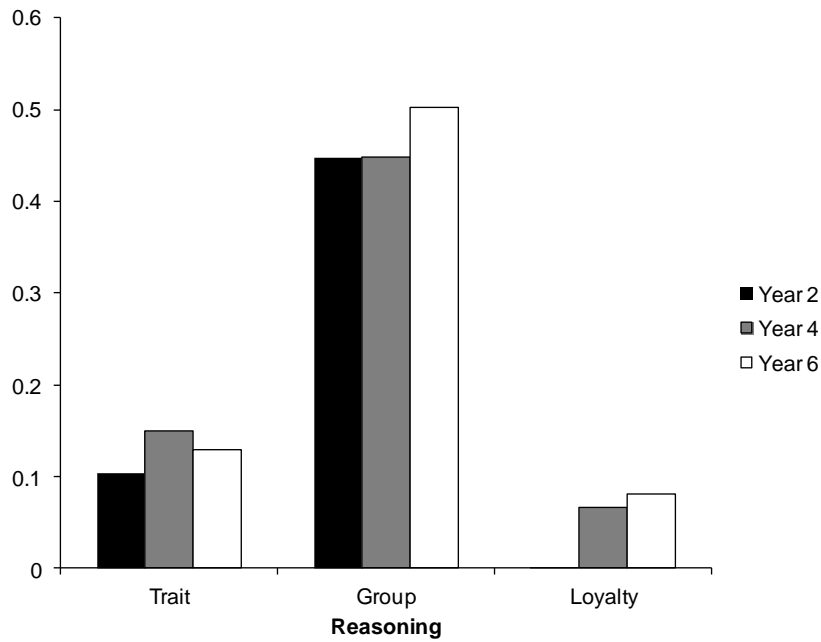


Figure 2b. Proportion of children in each Year Group using Moral, Psychological and Social Conventional Reasoning about Peer Evaluations

