

Running head: When Does the In-Group Like the Out-Group?

When does the in-group like the out-group?: Bias among children as a function of group norms

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*Psychological Science 'in press'*

Acknowledgements:

This project was supported by a grant from the *National Science Foundation* (#0840492) awarded to the last author. We are grateful for helpful feedback on the manuscript from Shelby Cooley and Laura Elenbaas. In addition, we thank Shelby Cooley, Laura Elenbaas, Jamie Ott, Nilo Fallay-Sohy, Rachel Hoffman, and Nicole Leyton for assistance with data collection.

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### **Abstract**

Research indicates that in-group favoritism is prevalent among both adults and children. While research has documented that individuals do not consistently display an in-group bias the conditions under which out-group preference exists are not well understood. In this study, participants ( $N = 462$ ), aged 9-16 years, judged in-group deviant acts which were either in line with, or counter, to a generic norm shared by both groups. The findings demonstrated, for the first time, that children preferred out-group over in-group deviance *only* when deviance by the in-group peer was in line with the generic norm and a threat to their group's identity. Participants justified their disapproval for these deviants by focusing on the need for group cohesion and loyalty, while they signified approval by spotlighting the need for autonomy. Our findings suggest that children's intergroup attitudes are influenced by how the behavior of their peers matches different levels of group norms.

*Keywords:* in-group bias, group norms, attitudes, deviance, peer relations, social development, reasoning

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Extensive research in social and cognitive psychology shows that social categories readily become either 'Us' or 'Them' -- individuals typically favor 'Us' over 'Them'. This pervasive tendency, known as *in-group bias*, may be related to prejudice (Dovidio, Hewstone, Glick, & Estes, 2010; Rutland, Killen, & Abrams, 2010). In-group bias is highly common among children but not universal. For example, low-status or socially-disadvantaged children often do not exhibit explicit in-group bias (e.g. Griffiths & Nesdale, 2006; Shutts, Kinzler, Katz, Tredoux, & Spelke, 2011). Thus, the ubiquitous assumption that individuals are driven by ethnocentric motives to support their in-group may not be the whole story. In particular, the conditions under which children prefer *out-group* members are not well understood.

Psychological theories have explained out-group favoritism by proposing that stereotypes or value consensus across group boundaries can reinforce and legitimate existing social systems or hierarchies (Jost & Banaji, 1994; Lee, Pratto, & Johnson, 2011). For example, system justification theory argues that when individuals hold favorable attitudes toward the existing social system and status quo this may override their tendency to show in-group favoritism (Jost, Banaji, & Nosek, 2004).

To date, the occurrence of out-group favoritism in childhood has been relatively neglected. We argue that an overlooked factor which may determine in-group bias in childhood has to do with group norms and how their desire to uphold these norms to augment group identity can engender both in-group bias and out-group favoritism (see relevant adult research by Marques, Abrams, Paez, & Hogg, 2001). Recent research suggests that even preschool children conform to peer group norms (e.g., Corriveau & Harris, 2010) and peer

groups become increasingly salient in late childhood and adolescence. By adolescence individuals are especially concerned about being socially excluded by other peers (e.g., Brown, Clasen, & Eicher, 1986; Gieling, Thijs, & Verkuyten, 2010). This aligns with recent developmental neuroscience research into brain development and social exclusion in adolescence. Individuals become increasingly sensitive to other's emotions and being rejected from the peer group (see Somerville, 2013).

Research on the importance of group norms and sensitivity to peer rejection indicates that children and adolescents are concerned about adhering to group norms as well as favoring members of their own group and this is motivated by a desire for positive group identity (see Killen, Rutland, Abrams, Mulvey, & Hitti, 2013; Rutland et al., 2010). Indeed research on peer group dynamics has revealed that, by middle childhood, individuals prefer a member of the out-group who conforms to their in-group's norm (i.e. an out-group deviant) over a member of their own group who dissents from their in-group's norm (i.e. an in-group deviant) (e.g., Abrams, Rutland, & Cameron, 2003). From middle childhood into adolescence an individual's understanding of group dynamics continues to develop as they begin to consider simultaneously multiple norms, conventional and moral, when making judgments and reasoning about social relations within and between groups (Hitti, Mulvey, Rutland, Abrams, & Killen, 2014; Killen et al., 2013; Mulvey, Hitti, Rutland, Abrams, & Killen, 2014; Rutland et al., 2010). Given this developmentally sensitive period, the present study focused on 9-13 year old participants.

Social psychological research, however, has shown that young adults *only* favor an out-group deviant over an in-group deviant when the latter is a full member and the in-group lacks a sense of 'groupness' (Lewis & Sherman, 2010; Pinto, Marques, Levine, & Abrams, 2010). This is because full members have a special role in validating the group's identity, and if they deviate from the group's norm they become a meaningful threat to the group's identity

(Levine & Moreland, 2002). This research has demonstrated a context with an adult sample in which perception of a threat to the group identity may influence the manifestation of in-group preference.

What has not been studied is how different levels of group norms are related to out-group preference in childhood. Generic norms (defined as societal-level expectations) are different from specific group-level norms (defined as expectations held by a specific peer group). Individuals may attend to generic norms that align with shared expectations of a specific group more than those norms which are solely formulated by a particular peer group.

We argue that the out-group preference that has been documented in previous studies is most likely when the out-group deviance aligns with larger generic norms, or, in other words, when deviance actually conforms to broad societal expectations. This is a fundamental distinction because in this situation the out-group deviance provides two bases for attracting favorable responses from an in-group member: supporting the in-group norm, *and* supporting the generic (societal-level) norm. Understanding this distinction reveals new knowledge about how group norms bear on the wider issue of in-group bias and out-group preference.

Studying this phenomenon in childhood provides novel data that has the potential to contribute to the formation of intergroup attitudes. First, understanding the origins of prejudice and bias is important for interventions. By adulthood, intergroup biases are deeply entrenched; thus, childhood is the time for intervention (see Killen, Rutland, & Ruck, 2011). Second, extensive research has shown the powerful influence of specific-level peer group norms on children's development (e.g. Nesdale & Lawson, 2011). Third, children's daily lives, unlike adults, are more constant and organized by both large (school affiliation) and local (clubs) groups that are dominated by peers and authority sanctioned. Thus, the role of

different levels of group norms in the formation of out-group preferences was investigated in the current experiment.

Specifically, the present study systematically examined, from middle childhood into adolescence (i.e., 9-16 year-olds), the role both specific peer group norms and larger societal generic norms play in the manifestation of out-group and in-group preference. We examined these preferences within the context of school group membership because this group identity is central to adolescents' lives (Eccles & Roeser, 2013). Further, previous research using a school context revealed that children who judged an out-group deviant were more favorable than children who judged an in-group deviant (e.g., Abrams et al., 2003).

We used a within-participants design to test whether this preference persists when individuals judge *both* an in-group and an out-group deviant. We tested the hypothesis that this favoritism depends on whether the deviant from a group norm simultaneously conforms or not to a generic norm -- one that applies to both the in-group and out-group. Thus, the current study fills a key gap in our current understanding of the role that group norms play on the manifestation of in-group bias.

Uniquely, in the present study we varied the type of deviance shown by an in-group and out-group deviant peer. The deviants opposed their group's norm in favor of the other groups' norm, and concurrently either conformed or not to a generic norm. Specifically, we told participants that it was the tradition (i.e., larger societal expectation or generic norm), that children wear their club shirts to community-wide events for all the clubs. Critically, though, some groups aligned with this generic norm while some resisted. Thus, we presented participants with in- and out-group deviants who were either "traditional" (wearing the club shirt, even though the group did not) or "non-traditional" (not wearing the club shirt, even though the group did).

We expected preference for out-group over in-group deviance would *only* occur when the deviant conformed to the traditional norm. This type of traditional deviance by the out-group member not only aligns with the in-group norm but also with the generic norm.

Whereas such deviance by an in-group deviant should be a fundamental threat to the group's identity because it also supports a generic norm shared with the out-group. This endorsement is a challenge to the distinctiveness of the in-group compared to the out-group (Tajfel, 1978). In contrast, favoritism for out-group over in-group deviance should not be present when the deviant also dissents from the traditional norm because this type of behavior infers low status upon all individuals within schools (Eccles & Roeser, 2013; Turiel, 1983). Therefore, both in-group and out-group deviants should be equally disliked.

The present study also examined the social reasoning individuals use to justify deviance. Social reasoning developmental theory asserts that reasoning about deviance provides important information about why deviance within groups is condemned or tolerated (see Killen & Rutland, 2011; Rutland et al., 2010). Similar to Kuhn's (1991) research on argumentation and Saxe's (2009) neuroscience research on individuals' interpretations of social interactions, we used reasoning analyses to examine the conceptual interpretations of events posed to participants regarding third-party behavior (in contrast to revealing "post-hoc" justifications of an individuals' own behavior). Research indicates that from childhood into adolescence adherence to social-conventional traditions has been viewed as a matter of personal choice (Horn, 2003) or as group loyalty or group functioning (Killen et al., 2013). We therefore expected our participants to use autonomy reasoning to justify tolerance of deviance, and group functioning (i.e., maintaining group cohesion) or group loyalty (i.e., being faithful to others) reasoning to denounce deviance.

Finally, we were interested in whether children's sensitivity towards group norms and the pressure to conform (Nesdale, Maass, Durkin, & Griffiths, 2005; Rutland, Cameron,

Milne, & McGeorge, 2005) becomes stronger into adolescence. We, therefore, investigated from middle childhood into adolescence age-related differences in the relationship between individual's own evaluations of deviance and their expectations about how their in-group peers would evaluate deviance. We anticipated that into adolescence the importance of group norms and concerns about peer group rejection will only increase (Killen et al., 2013; Somerville, 2013). We expected, when out-group deviance is preferred to in-group deviance, that the relationship between the perceived in-group norm and participant's own evaluation of the deviant act would be significantly stronger with age.

## Method

### Participants

462 participants were tested from the Middle - Atlantic region of the U.S. Three age groups participated (4<sup>th</sup> Grade, 8<sup>th</sup> Grade and 10<sup>th</sup> Grade respectively): 85 (43 female) 9-10 year olds ( $M = 10.10$  years,  $SD = .60$ ); 263 (127 female) 13-14 year olds ( $M = 13.82$  years,  $SD = .44$ ) and 114 (41 female) 15-16 year olds ( $M = 15.97$ ,  $SD = .57$ ). The participants attended schools serving middle-income populations, with an ethnic mix reflective of the U.S. population. Ethnicity was reflective of the U.S. population, with approximately 70% European-American and 30% ethnic minority participants (10% African American, 15% Latino, 5% Asian American).

### Design and Procedure

The design was mixed including *Age* (4<sup>th</sup>, 8<sup>th</sup> and 10<sup>th</sup> Grade)  $\times$  *Group* (In-group vs. Out-group)  $\times$  *Type of deviance* (Traditional or Non-traditional), with the last factor being within-participants. To establish group membership, participants were told that they belonged to a mixed-gender peer club at their actual school (i.e., the in-group). They were also shown an illustration (see Figure 1 in Supplemental Material) of a group of mixed-gender children in



a peer club from a familiar school in the participant's school district which often served as a competitive context for sports and teams (i.e., the out-group).

Next all participants were told that the school district provided club shirts which students were expected to wear at district special events (e.g., assemblies) so that everyone can be identified. This established a generic norm (i.e., tradition), shared by in-group and out-group, about wearing a club shirt to special events. Then participants were introduced to their in-group norm and the out-group norm which either matched (i.e. wearing a club shirt) or was counter (i.e., not wearing club shirt) to the tradition.

Two deviants from the in-group and out-group club were then portrayed as challenging their group norm and following the norm of the other group. The type of deviance shown by these two peers differed. The "Traditional Deviant" was the group member who conformed to the traditional norm by wearing the club shirt, but deviated from their group norm of not wearing the club shirt to district event (i.e., traditional condition). The "Non-Traditional Deviant" did not conform to the traditional norm, so they did not wear the club shirt to the event, and therefore deviated from their group's norm of wearing the club shirt to the event (i.e., non-traditional condition). Table 1 displays the four types of deviant behaviors within our design (see Table 1).

Table 1. *Study Conditions Depicting Four Types of Deviant Behavior for a 2 X 2 Design*

<i>Group</i>	<i>Type of Deviance</i>	
	<i>Traditional</i>	<i>Non-traditional</i>
<i>In-group deviant</i>	Wears the club shirt when their group does not	Does not wear the club shirt when their group does
<i>Out-group deviant</i>	Wears the club shirt when their group does not	Does not wear the shirt when their group does

## Measures and Analysis

For each deviant behavior participants responded to four dependent measures: 1) Evaluation of the deviant act, *okay or not okay* (i.e., Do you think X (deviant peer) was okay

or not okay to do what he/she did?); 2) Rating of the deviant act, *Likert* scale (i.e., How okay or not okay do you think X was for doing what he/she did? 1 = *really not okay* to 6 = *really okay*); 3) Reasoning, *justification for evaluation of deviant act* (e.g., Why?); and 4) Perceived in-group norm about evaluating the deviant peer (e.g. How do you think the group feels about having X in the group? 1 = *very bad* to 6 = *very good*).

Responses to the reasoning question were coded using coding categories drawn from Social Domain Theory (Smetana, 2013; Turiel, 2006), previous research (e.g. Killen et al., 2013) and a content review of the pilot data. Consistent with previous research on social exclusion, participants referenced social-conventional reasoning involving notions of group loyalty and group functioning, as well as personal reasoning related to individual choice and autonomy (Killen et al., 2013). The coding system used comprised three categories, including: 1) *Group Loyalty* (e.g., “He didn't show commitment to us”); 2) *Group Functioning* (e.g., “He will upset things because he's going against what the group wants”) and 3) *Autonomy* (e.g., “It’s okay for him to be different; he can do what he wants to do”).

Less than 5% of the participants used two codes. Justification responses were analyzed using an established data analytic procedure (see Killen et al., 2013): each justification was coded as 1 = *full use of the category*, .5 = *partial use*, 0 = *no use of the category*. Coding was conducted by three coders blind to the hypotheses of the study. On the basis of 25% of the interviews ( $N=116$ ), there was appropriate inter-rater reliability, Cohen’s  $\kappa = .86$ . ANOVAs were used to analyze proportions as they are robust to the problem of empty cells compared to other data analytic procedures (e.g., log-linear models) (see Wainryb, Shaw, Laupa, & Smith, 2001).

## Results

Initial analyses examined gender differences, but as no results were significant, gender was dropped from the analyses.

### Rating of the Deviant Act

A 3 (Grade: 4<sup>th</sup>, 8<sup>th</sup> & 10<sup>th</sup>) × 2 (Group: In-group, Out-group) × 2 (Type of Deviance: Traditional, Non-traditional) ANOVA, with repeated measures on the last factor, found main effects for Group,  $F(1,455) = 4.21, p = .041, \eta^2_p = .01$ , and Type of Deviance,  $F(1,455) = 125.66, p = .001, \eta^2_p = .22$ . There was also, as anticipated, a significant interaction between Group and Type of Deviance,  $F(1,455) = 5.66, p = .018, \eta^2_p = .01$ . Simple main effects analysis showed that participants rated the traditional deviant act (i.e., wearing the shirt when the group does not) by the out-group peer ( $M = 4.60, SD = 1.49$ ) as more acceptable than the same act by the in-group peer ( $M = 4.19, SD = 1.48; t(461) = 2.92, p < .01, d = .28$ ). In contrast, participants rated the non-traditional deviant act (i.e., not wearing the shirt when the group does) by the in-group ( $M = 3.24, SD = 1.42$ ) and out-group ( $M = 3.29, SD = 1.47$ ) as equally unacceptable,  $t(460) = -.37, p = .71$ . Participants thought an out-group deviant act was more tolerable than an in-group deviant act only when it was in line with the generic school norm (i.e., traditional). T-tests were also conducted against the midpoint value of 3.5. These results revealed that both the traditional deviant acts were significantly above the midpoint (in-group:  $t(227) = 7.230, p < .001$ ; out-group:  $t(234) = 11.237, p < .001$ ) and that both the non-traditional deviant acts were significantly below the mid-point (in-group:  $t(233) = -2.758, p = .006$ ; out-group:  $t(227) = -2.120, p = .035$ ). These findings are shown in Figure 1.

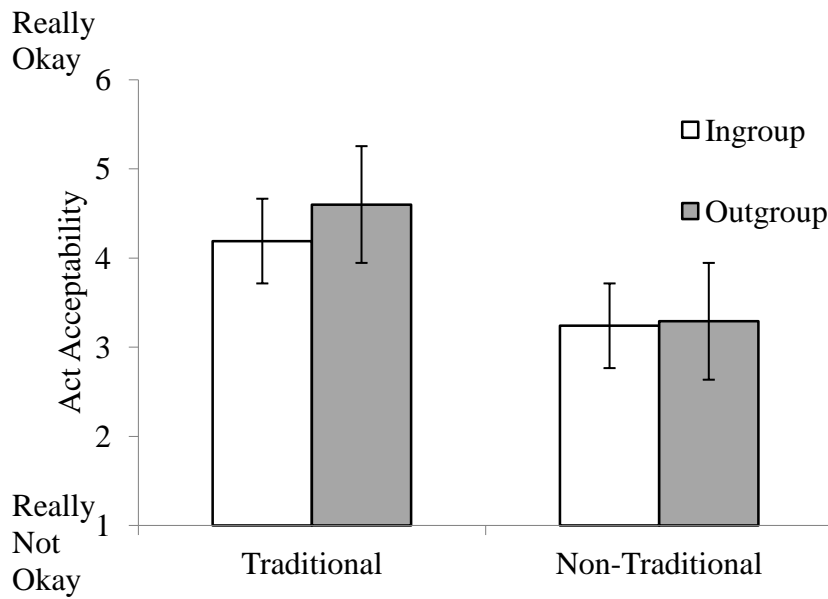


Figure 1. Evaluations of the acceptability of the deviant acts for the in-group and out-group members in the traditional and non-traditional conditions. Error bars represent  $\pm 1$  SEM.

### Reasoning About the Traditional Deviant Act

We conducted a 3 (Grade: 4<sup>th</sup>, 8<sup>th</sup> and 10<sup>th</sup>)  $\times$  2 (Group: In-group, Out-group)  $\times$  2 (Evaluation of Deviant Act: Okay, Not Okay)  $\times$  3 (Reasoning: Group loyalty, Group functioning, Autonomy) ANOVA, with repeated measures on the last factor. As anticipated, the ANOVA showed a significant Reasoning by Evaluation of Act interaction,  $F(2,856) = 30.63, p < .001, \eta^2_p = .06$ . Simple main effects showed differences in reasoning among both the participants who evaluated the act as Okay,  $F(2,427) = 226.87, p < .001, \eta^2_p = .51$ , and Not Okay,  $F(2,427) = 91.95, p < .001, \eta^2_p = .30$ .

Participants who evaluated the act as Not Okay ( $n = 123, 26\%$ ) used group functioning reasoning (e.g., "It would disrupt the group";  $M = .78, SD = .41$ ) significantly more than autonomy reasoning (e.g., "She's doing her own thing";  $M = .14, SD = .34$ ) (Bonferroni,  $p < .001$ ). In contrast, participants who evaluated the act as Okay ( $n = 340, 74\%$ ) used both autonomy ( $M = .42, SD = .48$ ) and group functioning ( $M = .31, SD = .45$ ) reasoning. Overall, participants used group functioning reasoning when evaluating the

traditional deviant act as Not Okay; while they used autonomy reasoning (e.g., “It’s up to her if she wants to wear the shirt”) when evaluating the traditional deviant act as Okay.

### **Reasoning about the Non-Traditional Deviant Act**

We performed a 3 (Grade: 4<sup>th</sup>, 8<sup>th</sup> and 10<sup>th</sup>) × 2 (Group: In-group, Out-group) × 2 (Evaluation of the Deviant Act: Okay, Not Okay) × 3 (Reasoning: Group loyalty, Group functioning, Autonomy) ANOVA with repeated measures on the last factor. The ANOVA showed a significant Reasoning by Evaluation of the Act by Grade interaction,  $F(4, 840) = 4.00, p < .01, \eta^2_p = .02$ .

Next, we conducted two separate ANOVAs on the participants who chose Okay ( $n = 195, 42\%$ ) and those who selected Not Okay ( $n = 267, 58\%$ ). These were 3 (Grade: 4<sup>th</sup>, 8<sup>th</sup> and 10<sup>th</sup>) × 3 (Reasoning: Group loyalty, Group functioning, Autonomy) ANOVAs with repeated measures on the last factor. There was a Reasoning by Grade interaction for the participants who evaluated the act as Not Okay,  $F(4, 405) = 5.63, p < .001, \eta^2_p = .04$ . Simple main effects analyses showed an age effect on group loyalty,  $F(2, 252) = 9.80, p < .001, \eta^2_p = .07$ , and group functioning reasoning,  $F(2, 252) = 5.80, p < .01, \eta^2_p = .04$ , for the participants who evaluated the act as Not Okay. These age effects are shown in Figure 2.

Follow-up analyses on when the act was judged Not Okay showed the Grade 10 adolescents ( $M = .23, SD = .42$ ) used group loyalty reasoning (e.g., "She is just doing what she wants and doesn't care about us") significantly more than 4th Grade ( $M = .03, SD = .16$ ) and 8th Grade ( $M = .06, SD = .24$ ) children (Bonferroni,  $ps < .001$ ). These analyses also showed 4th Grade children ( $M = .84, SD = .34$ ) used group functioning reasoning significantly more than 8<sup>th</sup> Grade ( $M = .67, SD = .45$ , Bonferroni,  $p < .05$ ) and 10th Grade ( $M = .55, SD = .49$ ) adolescents (Bonferroni,  $p < .01$ ).

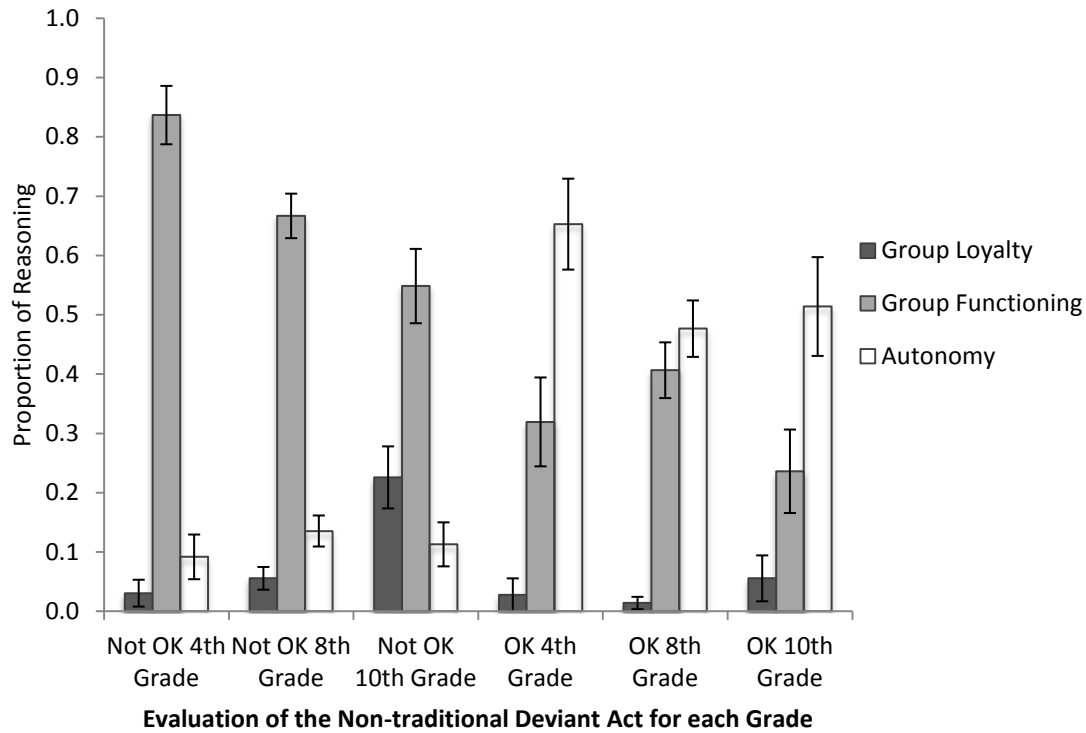


Figure 2. Proportion of reasoning used by 4th, 8th and 10th Grade to justify their judgment of non-traditional deviant acts as a function of their evaluation of the act

### Relationship between Perceived Group Norm and Rating of the Deviant Act

We expected, when the deviant conformed to the traditional norm, that the relationship between the perceived in-group norm and the participant's own rating of the deviant act would be significantly stronger among the older compared to younger individuals. To test our hypothesis, in IBM SPSS 19 using bootstrapping, we entered the centered continuous variables for Age and Perceived group norm together with their interaction term hierarchically to predict the participants' ratings of the traditional and non-traditional deviant acts.

Perceived group norm was a significant predictor of how the participants rated the traditional deviant act ( $\beta = .28, t = 6.47, p = .001; R^2 = .10, F(3, 462) = 16.83, p < .001$ ). Their rating of the act became more positive the more they perceived their group to be favorable towards the traditional deviant peer. As expected, there was also a significant

interaction between Age and Perceived group norm ( $\beta = .11, t = 2.49, p = .013$ ). Simple slopes analyses revealed the relationship between the participant's perception of their group's norm and their own rating of the traditional deviant act was significantly stronger amongst the older ( $t = 6.25, p = .001$ ) compared to the younger ( $t = 2.36, p = .032$ ) participants. This effect is shown in Figure 3. Perceived group norm was also a significant predictor of the participants' ratings of the non-traditional deviant act ( $\beta = .33, t = 7.51, p < .001; R^2 = .10, F(3, 461) = 19.35, p < .001$ ), but as expected there was no significant interaction between Age and Perceived group norm ( $\beta = .02, t = .48, p = .63$ ).

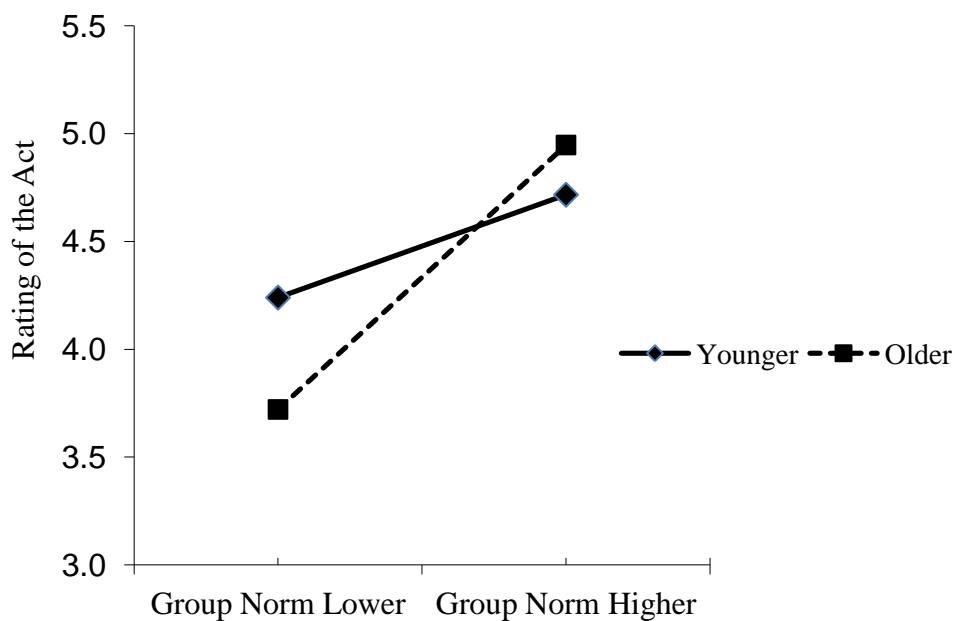


Figure 3. Rating of the traditional deviant act for younger and older children as a function of perceived in-group norm. For older participants and younger participants, and higher and lower group norm scores we substituted values 1 standard deviation above and below the means, respectively.

## Discussion

In this study we showed, for the first time, how different levels of group norms are related to the expression of out-group preference among children and adolescents. In the

same experiment, we showed both the presence and absence of an out-group over in-group preference depended upon how the deviance matched the group and generic norm. These findings revealed a focus on group norms and how deviation from these norms can engender either in-group bias or out-group favoritism helps to better understand the manifestation of out-group preference.

Overall the participants rated the deviant peers who conformed to the generic norm more positively than those who did not support this norm. However, as expected, a preference for the out-group deviant over the in-group deviant was only evident when both these deviants conformed to the generic norm. This type of deviance is unique in that the out-group member acts in alignment with the participant's own group norm and the generic (i.e., traditional) norm. Conversely by rejecting the participant's own group norm and supporting the generic norm (i.e., to be traditional) the in-group deviant threatened the distinctiveness of the in-group and its group identity (Tajfel, 1978). These findings are also compatible with psychological theories that emphasize the importance of conventions and stereotypes in perpetuating the status quo (e.g., Jost et al., 2004; Rutland et al., 2010; Turiel, 1983). Conventions or traditions typically have high status because they are culturally sanctioned behavior and are indicators of social hierarchy. Our participants were arguably signaling their broad alignment with convention and the status quo (the 'system') by favoring the out-group deviant only when they acted in line with tradition and supported the high status form of behavior.

The findings for reasoning support this argument since participants justified their disapproval for traditional deviants who conformed to the generic norm mostly through group functioning reasoning (i.e., the need to maintain group cohesion and effectiveness). In contrast, participants who justified support for these same deviants typically used autonomy reasoning (i.e., the need for personal autonomy and choice). A minority of children used



group functioning reasoning to signify their approval for the traditional deviant. In the case of the out-group traditional deviant, participants did not perceive this deviant as an out-group member but rather as members of a common in-group which conformed to the generic tradition. There was also a developmental trend whereby older participants increasingly used group loyalty (i.e., being faithful to others) compared to group functioning reasoning to disapprove of deviants who dissented from the generic norm.

Finally, when the deviant behaved traditionally, with age individuals increasingly used their beliefs about how their own group would evaluate these deviants (i.e., perceived in-group norm) to inform their own evaluations of these deviants. Consistent with previous research in middle to late childhood (FitzRoy & Rutland, 2010; Nesdale & Lawson, 2011; Rutland, 2013; Rutland et al., 2005), this study suggests that sensitivity to group norms and concerns about social exclusion gets stronger into adolescence. This developing sensitivity to group norms into adolescence is likely due to the increasing role of the peer group in adolescence and the increasing attention to the importance of ensuring group functioning with age (Brechwald & Prinstein, 2011; Horn, 2003).

Making children more aware of group dynamics, the pressures to conform and the legitimacy of resisting conformity can help reduce the potential development of prejudice driven by in-group bias. This cannot be achieved simply through legislation or political dictate, rather it requires educational interventions that focus on changing social relationships (i.e., child-child or child-adult interactions) and children's social-cognitive skills (i.e., social perspective taking and moral reasoning) (see Killen et al., 2011).

We have demonstrated a context in which the in-group is not preferred, with a deviant from the out-group who conforms to a generic norm being preferred to an equivalent in-group deviant. We do not suggest that in-group bias is absent in childhood; indeed research shows in-group bias is a general phenomenon in childhood (Dunham, Chen, & Banaji, 2013). On the

contrary, we propose that an often overlooked factor which determines the emergence of in-group bias has to do with group norms, and specifically how the motivation to conform to these norms can contribute to displays of in-group bias or out-group favoritism. The current study provides novel data on the early ontogenesis in childhood of the conditions that lead to out-group preference. Given prejudice is the opposite of out-group preference, determining the contexts in which individuals display out-group favoritism provides a window into opportunities for reducing prejudice in adulthood.

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### Authorship

A. Rutland, M. Killen and D. Abrams developed the study concept. All authors contributed to the study design. Testing and data collection were performed by K. L. Mulvey and A. Hitti.

A. Rutland, K. L. Mulvey, A. Hitti and M. Killen performed the data analysis and interpretation. A. Rutland drafted the manuscript, and all authors provided critical revisions.

All authors approved the final version of the manuscript for submission.

