Claims of Wrongdoing by Outgroup Members Heighten Children's Ingroup Biases

Jacquelyn Glidden, Alexander P. D'Esterre, Lucas P. Butler, and Melanie Killen

University of Maryland, College Park

Correspondence concerning this article should be addressed to Jacquelyn Glidden, University of Maryland, Department of Human Development and Quantitative Methodology, 3942 Campus Drive, Suite 3304, College Park, MD, 20742-1131, USA.
Contact: jglidden@umd.edu; 301-405-0483 (phone).

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Abstract

Little is known about how group bias may impact children's acceptance of unsubstantiated claims. Most children view cheating as unfair. However, in competitive situations, when ambiguity surrounds the potential intention to cheat, group affiliation may lead children to support claims of cheating based solely on the team affiliation of the claimant, even when those claims are not clearly substantiated. Therefore, it may be particularly important to consider the role ingroup bias may play in children's accusations of cheating in a competitive intergroup context. The current study investigated 4-10 year old children's (N = 137, M Age = 6.71 years, SD Age = 1.49; 47% female) evaluations of ambiguous acts and unverified claims about those acts in a competitive, intergroup context. Results showed that children initially viewed an ambiguous act similarly, regardless of team affiliation, but demonstrated increasing ingroup biases after claims of wrongdoing were introduced. Implications for how unsubstantiated claims may impact intergroup interactions more broadly will be discussed.

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In interaction with and learning from others, adults and children must consider the legitimacy of claims and information communicated by others. From an early age, children recognize that claims based on verified evidence are more acceptable than claims that have not been verified (Butler et al., 2018). Communication of information is a fundamentally social process, however, and thus children's evaluation of claims' legitimacy is likely impacted by a variety of social-cognitive factors, such as ingroup biases, which must be investigated. Further, making an unverified claim in the context of moral decision-making has implications for the fair and just treatment of others. For example, claims about wrongdoing based solely on group identity can result in exclusionary behavior (McGlothlin & Killen, 2010) or even more dire outcomes such as racial profiling (Okonofua & Eberhardt, 2015).

The goals and the design of the current study drew from two different literatures—one on children's reasoning about moral concerns in intergroup contexts (Rutland & Killen, 2015) and one on children's epistemic reasoning and evaluation of others' empirical claims (Butler, 2020). Bridging these two literatures, this study investigated how children balance concerns for fairness and group identity when reasoning about an intergroup competition. Specifically the intergroup competition entailed a character who engages in an ambiguous, potentially morally wrong action, and a second character who makes a plausible but unverified claim that what the first character did was in fact a morally wrong action. Thus, the current study examined how children's moral judgments of wrongdoing were impacted by claims of wrongdoing in a competitive, intergroup context.

Group Identity

A long line of research has demonstrated the many ways that children's social, moral, and cognitive decision making processes are impacted by group identity (Killen et al., 2015; Nesdale & Flesser, 2001; Rutland et al., 2012). From early in infancy, humans are aware of their social environments and begin to categorize social partners into groups (Liberman, Woodward, & Kinzler, 2017). The categorization of individuals into groups is a central component of human cognition and it helps children simplify and understand their social environment (Rhodes & Baron, 2019). However, these categorizations can also lead to sometimes unwarranted generalizations, such as the formation of assumptions about groups with individuals who are similar to oneself, ingroup members, and groups with individuals who are different to oneself, outgroup members (see Dunham & Banaji, 2008 for a review).

Research has routinely demonstrated that group identity plays a strong role in children's moral judgments, often studied as both a preference for the ingroup and a dislike of the outgroup (Griffiths & Nesdale, 2006; Verkuyten, 2007). This work shows that a wide range of children's intergroup decisions, such as those pertaining to resource allocation (Cooley & Killen, 2015; Killen et al., 2017; McGuire et al., 2017; Sparks et al., 2017), social exclusion (Abrams et al., 2009; Brenick & Killen, 2014; Hitti et al., 2017), and moral judgments (Glidden et al., 2021; Sierksma et al., 2018; Tezanos-Pinto et al., 2010) are impacted by group identity. In the current study we were also interested in the role of group identity in intergroup moral judgments, specifically examining children's judgments of wrongdoing in a competitive, intergroup context.

The role of group identity in competitive, intergroup contexts requires children to balance multiple concerns simultaneously, such as concerns for fairness in the competition, loyalty to their team, and motivations of both team members and those on the other team. Previous research shows that the presence of competitive norms or competition often heightens children's

awareness and reliance on group identity and group loyalty (D'Esterre et al., 2022; McGuire et al., 2017; Rhodes & Brickman, 2011). For example, McGuire and colleagues (2017) found that varying an outgroup norm to be competitive (versus cooperative) was associated with children (8-11 year olds) and adolescents (13-16 year olds) demonstrating more ingroup biases. Competition increases ingroup loyalty; attitudes about the outgroup often become more negative the more individuals view the goal of winning as appealing and important. This impacted both resource allocation decisions and children's and adolescents' justifications for those decisions.

Competition impacts children's reliance on group identity in minimal group contexts as well. One study with minimal groups (e.g., Flurps and Zazes), showed that creating competition between two fictional groups was associated with children (6 year olds) relying more on group membership to predict prosocial and antisocial behaviors (Rhodes & Brickman, 2011). Additionally, work with children (4-10 year olds) in an ad-hoc group context (e.g., Red team, Blue team) demonstrated that children's judgments of inequalities was associated with their group identity (D'Esterre et al., 2022). Specifically, when making moral judgments and reasoning about the acceptability of fair and unfair advantages for their team, children evaluated these advantages differently depending on their group identity. When evaluating accidental yet unfair advantages, children's group identity played a role such that they evaluated these advantages negatively when they were created by an outgroup member and more favorably when they were created by an ingroup member. Generally, group identity plays an important role in children's intergroup decisions, especially when they occur in competitive contexts.

Yet, ingroup bias does not always impact children's moral judgments. Research with preschoolers has shown that in-group preference was significantly reduced when negative moral behaviors were introduced (Hetherington et al., 2014). Specifically, children (4-5 year olds) were

assigned to minimal groups and then witnessed their ingroup member either behaving prosocially or antisocially. When ingroup members behaved antisocially but outgroup members behaved prosocially, children showed significantly lower ingroup preference compared to when ingroup members behaved prosocially and outgroup members behaved antisocially. As another illustration, preschoolers negatively evaluated an ingroup member who espoused an unequal allocation of resources that would benefit the in-group (Cooley & Killen, 2015). Thus, children are simultaneously considering both moral information and group identity information, even from the preschool years.

The current study utilized a competitive intergroup context, a pumpkin growing competition between a Red team and a Blue team, to investigate children's moral judgments (see D'Esterre et al., 2022). Previous work has shown that fairness is an important concern for children from 4-10 years old (Smetana et al., 2014). Group identity also plays an important role in children's moral decision making (Abrams & Rutland, 2008; Nesdale, 2008). As children have increased experience with peer groups, they also have increased experiences with competitive contexts, such as in sports events or school competitions. The current study aimed to combine these three factors, heightened awareness of fairness, group identity concerns, and a competitive context, in order to shed light on how children balance all three concerns simultaneously.

Claims about Wrongdoing

In intergroup contexts, situations often arise where an individual makes a claim (e.g., "They cheated!") and both ingroup members and outgroup members must judge and evaluate the claim, determine the motives behind the claim, and make a decision about moving forward, such as whether or not punishment is necessary. Previous work has demonstrated that children think about numerous factors when considering claims from others, such as the claimant's access to

knowledge, competence, accuracy, and trustworthiness (Brosseau-Liard & Birch, 2011; Butler et al., 2018, 2020; Harris et al., 2018; Mills, 2013). More broadly, children show a developing capacity to integrate both social and epistemic factors in reasoning about whether or not to accept a claim (see Butler, 2020), but identifying and assessing the accuracy of and underlying motives behind claims remains challenging throughout childhood and adolescence, and even into adulthood.

While interpreting claims is itself a challenging task, incorporating group identity information into the process makes it even more difficult. Children show a sensitivity to group identity when evaluating claims (Harris & Corriveau, 2011). For example, children are more likely to endorse information provided by individuals who are similar to themselves (Chen et al., 2011, 2013; Kinzler et al., 2011), and will even do so solely on the basis of cues to minimal, aribtrary group information (MacDonald, Schug, Chase, & Barth, 2013). But it is not yet known how children's understanding of group identity impacts their ability to evaluate claims in competitive contexts. The current study sought to combine two lines of research: 1) research examining the ways group identity and competitive contexts impact children's moral judgments and 2) research examining how children use group membership information to inform their evaluations of verified and unverified claims.

The Present Study

The current study examined how 4-10 year old children evaluated an ambiguous action (one that could be seen as either cheating or helping to clean up) before and after an individual made an unsubstantiated claim of cheating. We assigned children to one of two group identities which matched either the individual making the claim, or the individual about whom the claim

was made. A central goal was to investigate the role of group identity in children's evaluations of ambiguous acts and unverified claims of wrongdoing.

Hypotheses. The hypotheses were the following:

H1) It was expected that children would demonstrate ingroup bias when evaluating the ambiguous act. Specifically, we predicted that children would evaluate the potential transgressor's ambiguous act more positively when it was made by an ingroup member than when it was made by an outgroup member (H1a). Similarly, we predicted that children's decisions to punish the potential transgressor would also be impacted by group identity, with children who shared a group identity with the potential transgressor assigning less punishment than those who did not share a group identity (H1b). These hypotheses were based on previous work showing children demonstrate strong ingroup preferences and biases in ambiguous contexts (McGlothlin & Killen, 2010).

H2) Further, we predicted that children would demonstrate ingroup bias when evaluating whether or not the unsubstantiated claim of wrongdoing was OK or not OK. Specifically, we predicted that children would evaluate the unsubstantiated claim more positively when it was made by an ingroup member than when it was made by an outgroup member (H2a). Similarly, we predicted that children's evaluations of the motives underlying the claim would also be impacted by group identity, with children who shared a group identity with the claimant endorsing positive motives underlying the claim, and children who did not share a group identity with the claimant endorsing negative motives underlying the claim (H2b). These hypotheses were based on previous work showing that children use group identity information to inform their evaluations of claims (Chen et al., 2011; Harris & Corriveau, 2011).

H3) Next, we predicted that children would also change their evaluations of the ambiguous act itself, as well as their decisions to punish after, after having heard a claim of wrongdoing. We predicted that children's evaluation of the ambiguous act would be influenced by their ingroup bias, such that children who did not share a group identity with the potential transgressor would evaluate the act as worse after hearing the claim, compared to children who did share a group identity with the potential transgressor (H3a). Further, children's punishment decisions would be impacted in a similar way: children who did not share a group identity with the potential transgressor would assign more punishment after hearing the claim, compared to children who did share a group identity with the potential transgressor (H3b). These hypotheses are based both on the literature highlighting children's ingroup biases in ambiguous contexts (McGlothlin & Killen, 2010) and their reliance on group information when evaluating claims (Chen et al., 2011; Harris & Corriveau, 2011).

H4) Finally, we hypothesized that older children would show more ingroup bias than younger children. We investigated the role of age in all models, anticipating that older children would show more ingroup bias, in line with previous work (D'Esterre et al., 2022; Gasser et al., 2013; Rutland et al., 2015).

Method

Participants were 137 children between the ages of 4 and 10 years old (M_{Age} = 6.71 years, SD_{Age} = 1.49; 47% female) from the Mid-Atlantic region of the United States. Participants were 71% European American, 29% ethnic and racial minorities (11% African American, 7% Asian American, 7% Hispanic, 1% Multiracial), and 3% chose not to respond, predominantly from middle to upper-middle income families. Sample size was determined using a priori power analyses using G*Power (Faul et al., 2009), which revealed that in order to detect small to

medium effects, a minimum of approximately 100 participants would be necessary to test the hypotheses. In order to ensure sufficient power, we planned to test 120 children. Because in our recruitment setting (schools and summer camps) we could not always control the gender and age of the next participant tested, some additional children were tested in order to ensure that we had enough participants in each of two conditions, evenly divided by gender and representative across the age range. No analyses were conducted until data collection was completed. Data were collected between April and August 2019.

Design

Participants were introduced to a competitive, intergroup scenario which allowed them to evaluate a potential transgression made by the Blue team and an accusation of cheating made by the Red team. In order to determine the effect of ingroup bias on children's evaluations of cheating in ambiguous contexts, children were assigned to one of two conditions where their assigned group identity either matched the individual making the claim of wrongdoing (Red team, Ingroup-Claimant Condition) or did not match the identity of the individual making the claim (Blue Team, Ingroup-Transgressor Condition).

Procedure

This project was approved by the Institutional Review Board at the University of Maryland, College Park. All participants received written parental consent to participate and gave verbal assent prior to study administration. Trained research assistants individually administered the task to all participants. Interviews were conducted in a quiet space in participants' schools or summer camps. All interviews lasted 20-30 minutes. Research assistants read the children stories from a script which was presented using a brightly illustrated

PowerPoint presentation on a laptop computer. Using a printed protocol, researchers recorded children's Likert-type and short answer responses. All sessions were audiotaped.

Participants were first introduced to a 6-point Likert-type scale and trained on its use. Once children demonstrated competence using both end points and midpoints, the researcher began the interview. All children were able to understand the Likert-type scale.

Group Assignment. All participants were told that they were invited to join a pumpkin growing contest (see D'Esterre et al., 2022 for the general paradigm). Children were randomly assigned to either the Red or Blue team. This team assignment served as an ad-hoc group manipulation, such that children assigned to the Blue team would always witness an ingroup member as the potential transgressor and an outgroup member as the claimant and children assigned to the Red team would always witness an outgroup member as the potential transgressor and an ingroup member as the claimant. We thus refer to these two conditions as the Ingroup-Transgressor and Ingroup-Claimant conditions.

In order to induct children into their new group identity, an ad-hoc group procedure established by Nesdale et al. (2004) was used. Children were allowed to pick a team logo (stars or lightning bolts) and to select a reward for their team if their team won the contest (pizza party or ice cream party). All children were presented with images of the characters on their team wearing their team color and a gender-matched silhouette character labeled "you" to represent the participant. All characters were portrayed as approximately the age of the participant and represented an ethnically varied team composition.

Context. Participants were introduced to the two rules of the contest: 1) Each team can only feed their pumpkins one cup of food each day and 2) Each team has to keep the pumpkin patch clean. Children witnessed the two teams feeding their pumpkins and then everyone leaving

to go home. Afterwards, Sam, a member of the Blue team, was shown returning to the pumpkin patch, standing near their team's pumpkins with an empty cup of plant food near their hand. Participants then answered questions about the ambiguous act. Next, participants were reminded of the ambiguity of the situation: "Remember, we don't know for sure what Sam was doing here. Sam could have been cleaning up or Sam could have been feeding the pumpkins again." All participants then saw Taylor, a member of the Red team, come in and claim that Sam had been cheating: "Sam fed the pumpkins again! Sam cheated!" Participants were asked to rate acceptability of the act, as well as the acceptability of the claim.

Assessments

Acceptability of the Act. Participants also evaluated the acceptability of the act by responding on a six-point Likert-type scale to the question "How OK or not OK it was for Sam to do what they did?" Children were asked this question twice, once before the claim and once afterwards.

Punishment for the Act. Participants were trained on a special Likert-type scale to assign punishment following transgressions. Researchers showed the participants the scale from 1 to 6 and told them, "Here's a special way to say how much trouble someone should be in. (Point to left side) It goes from no trouble on this end, all the way to a lot of trouble on this end! (Point to right side) And we can pick anywhere in between." Participants then answered the question, "Do you think Sam should get in trouble for doing what Sam did? How much trouble?", from 1 = no trouble to 6 = a lot of trouble. Participants were asked this question twice, once before the claim and once afterwards.

Acceptability of the Claim. Participants evaluated the acceptability of the claim by the red team member, responding on a six-point Likert-type scale to the question "How OK or not OK was it for Taylor to say that Sam cheated?"

Motivation of the Claim. Participants were asked to identify a potential motivation for red team member's claim of cheating: "Do you think Taylor really believes that Sam cheated or do you think Taylor just wants the red team to win?"

Results

In order to allow for investigating possible age effects, we first dichotomized age into a younger and older group. The younger group consisted of 65 children (M_{Age} = 5.88 years, SD_{Age} = .728), and the older group consisted of 74 children (M_{Age} = 8.07 years, SD_{Age} = .844). We then conducted a multivariate general linear model to determine the ability of team membership, participant age, and the interaction between these variables to predict multiple outcome variables, while controlling for Type-I errors. The multivariate analysis was utilized to predict children's initial judgments of the acceptability of the ambiguous transgression, initial judgments for the extent of punishment, their response to the unsubstantiated claim of cheating, their judgments following the claim, and their punishment following the claim. Additionally, we used chi square analysis to investigate differences in children's dichotomous judgments (was it OK or not OK to make the claim) based on team membership and age, before and after the claim. Lastly, a repeated measures analysis of variance (ANOVA) was used to determine any statistical differences between the two repeated measures (evaluations of the ambiguous act and decisions to punish).

Initial Acceptability of the Act

Before hearing the claim of cheating, participants evaluated whether or not they thought the potential transgression was OK or not OK. There were no differences in children's rating of the acceptability of the act by either team membership ($F(1, 135) = 1.95$, $p = .169$, [-.192, 1.086]) or age ($F(1, 135) = 0.645$, $p = .423$, [-.898, .379]). Children, regardless of age and team membership, thought the ambiguous act was slightly not OK ($M = 2.74$, $SE = 0.16$).

However, there was an Age X Team interaction ($F(1, 135) = 4.83$, $p = .030$, $\eta_p^2 = .04$): older children in the Ingroup-Transgressor condition gave higher ratings of acceptability ($M = 3.12$, $SE = 0.34$) compared to older children in the Ingroup-Claimant condition ($M = 2.03$, $SE = 0.33$, $p = .015$, [.225, 2.089]), see Figure 1. There were no differences by team membership among younger children ($p = .552$, [-1.137, .611]). Thus, there was partial support for our first hypothesis, H1a, that children would evaluate the potential transgressor's ambiguous act more positively when it was made by an ingroup member than when it was made by an outgroup member.

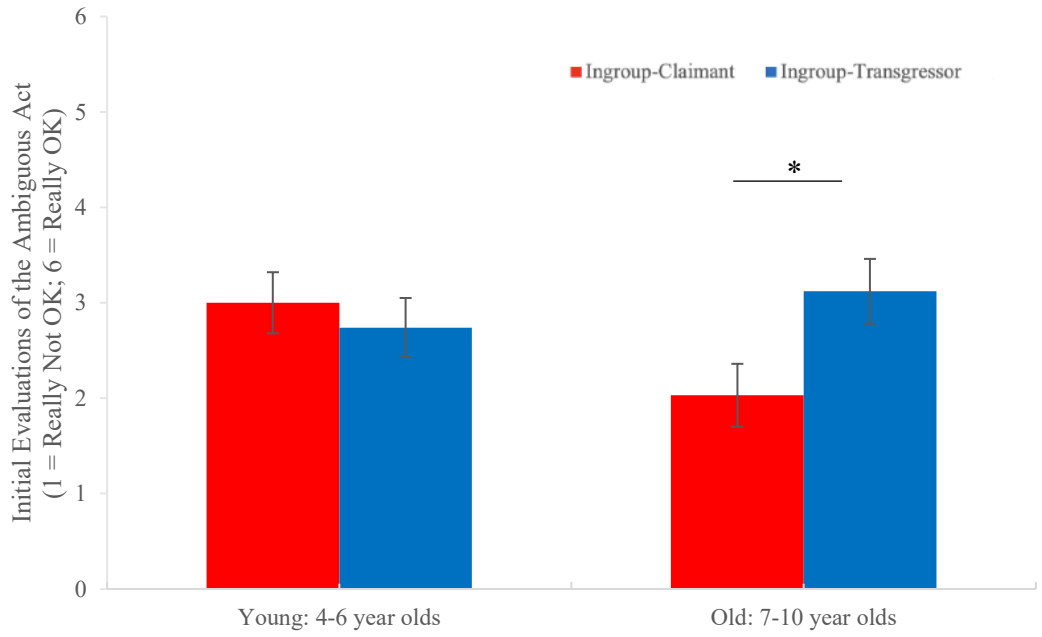

Figure 1. Evaluations by Age and Team Membership. * $p < .05$.

Initial Punishment for the Act

After evaluating the ambiguous act, children were asked whether or not the potential transgressor should be punished, and how much punishment they should receive. Team membership significantly predicted children's punishment assignments ($F(1, 135) = 6.98$, $p = .009$, $\eta_p^2 = .05$, [-1.541, -.221]). Children in the Ingroup-Claimant condition, for whom the transgressor was in the outgroup, assigned significantly more punishment to the potential transgressor ($M = 4.35$, $SE = 0.24$) than children in the Ingroup-Transgressor condition ($M = 3.47$, $SE = 0.24$, $p = .016$). Thus, we found support for hypothesis H1b: even though children agreed that the ambiguous act was only slightly not OK, children in the Ingroup-Claimant condition, who were on the Red team and would be disadvantaged if the ambiguous act was actually cheating, assigned harsher punishment to the transgressor. There were no differences based on age.

Acceptability of the Claim

Supporting hypothesis H2a, participants showed a strong team membership difference in their response to the unsubstantiated claim of cheating made by a Red team member, with participants in the Ingroup-Transgressor condition, who were on the blue team and thus for whom the claimant was in the outgroup, evaluating the claim as less acceptable ($M = 3.00$, $SE = 0.23$) than participants in the Ingroup-Claimant condition ($M = 3.96$, $SE = 0.23$; $F(1,134) = 8.85$, $p = .003$, $\eta_p^2 = .06$, [-1.592, -.320]). Further, we also found support for hypothesis H2b: children on in the Ingroup-Transgressor team, who were on the Blue team, were more likely to view the outgroup's claim as being motivated by a desire to help their own Red team win ($\chi^2(1, N = 140) = 5.99$, $p = .014$, OR = 2.44). Thus, while children seemingly agreed on the acceptability of the

act *before* the claim, there were strong reactions to the claim itself, with children in the Ingroup-Transgressor condition, for whom the claimant was in the outgroup, more likely to ascribe negative intentions to the claim and view the claim as unacceptable.

Acceptability of the Act after the Claim

Following this claim of cheating, participants once again rated the acceptability of the ambiguous act. There was a significant main effect of team membership on participants' second evaluation of the ambiguous act ($F(1,134) = 9.64$, $p = .002$, $\eta_p^2 = .07$, [.355, 1.603]). Children in the Ingroup-Claimant condition, for whom the transgressor was in the outgroup, rated the ambiguous act as less acceptable ($M = 2.27$, $SE = 0.22$) than children in the Ingroup-Transgressor condition ($M = 3.25$, $SE = 0.22$). There were no significant differences by age.

Punishment after the Claim

Following the claim of cheating children also had the opportunity to assign punishment to the potential transgressor. There was a significant main effect of team membership ($F(1,134) = 13.09$, $p < .001$, $\eta_p^2 = .09$, [-1.541, -.221]). Children in the Ingroup-Claimant condition, for whom the transgressor was in the outgroup, assigned significantly more punishment ($M = 4.60$, $SE = 0.23$) than children in the Ingroup-Transgressor condition ($M = 3.42$, $SE = 0.23$). This finding matches the earlier finding that children in the Ingroup-Claimant assigned more punishment to an outgroup transgressor before the claim.

Evaluations and Punishment Before and After the Claim

We used a repeated measures ANOVA to test hypotheses H3a and H3b by analyzing whether children changed their responses to their evaluations of the act and their decisions to punish following the unsubstantiated claim, and whether this change differed based on group membership. Children in the Ingroup-Transgressor condition became more positive in their

evaluation following the claim of wrongdoing, while those in the Ingroup-Claimant condition, for whom the transgressor was in the outgroup,, became more negative in their evaluation ($F(1,135) = 6.886$, $p = .011$, $\eta_p^2 = .05$), see Figure 2. There was no difference by team membership *before* a claim was made but a strong difference *after* the claim, suggesting that ingroup bias affected children's responses to the claim and their evaluations afterwards, supporting H3a.

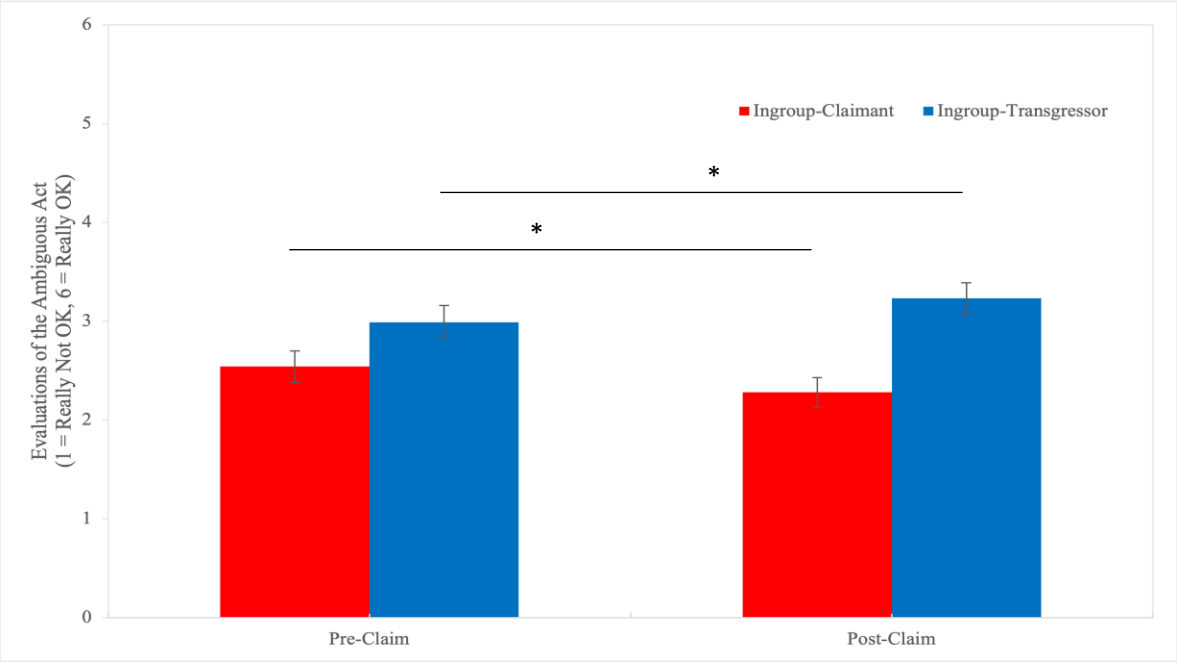

Figure 2. Evaluations Pre- and Post-Claim by Team Membership. * $p < .05$

When looking at children's decisions to punish the potential transgressor before and after the claim, we also found differences, but only for children in the Ingroup-Claimant condition. Supporting hypothesis H3b, children in the Ingroup-Transgressor condition did not change their punishment level for the potential transgressor while children in the Ingroup-Claimant condition, for whom the transgressor was a member of the outgroup, increased their punishment of the potential transgressor following the claim ($F(1,135) = 13.770$, $p < .001$, $\eta_p^2 = .09$), see Figure 3.

Again, children's team membership played an important role in their intergroup decisions following a claim of wrongdoing: children who shared a group membership with the claimant escalated their punishments for the potential transgression, while those who did not share a team membership kept their punishment the same.

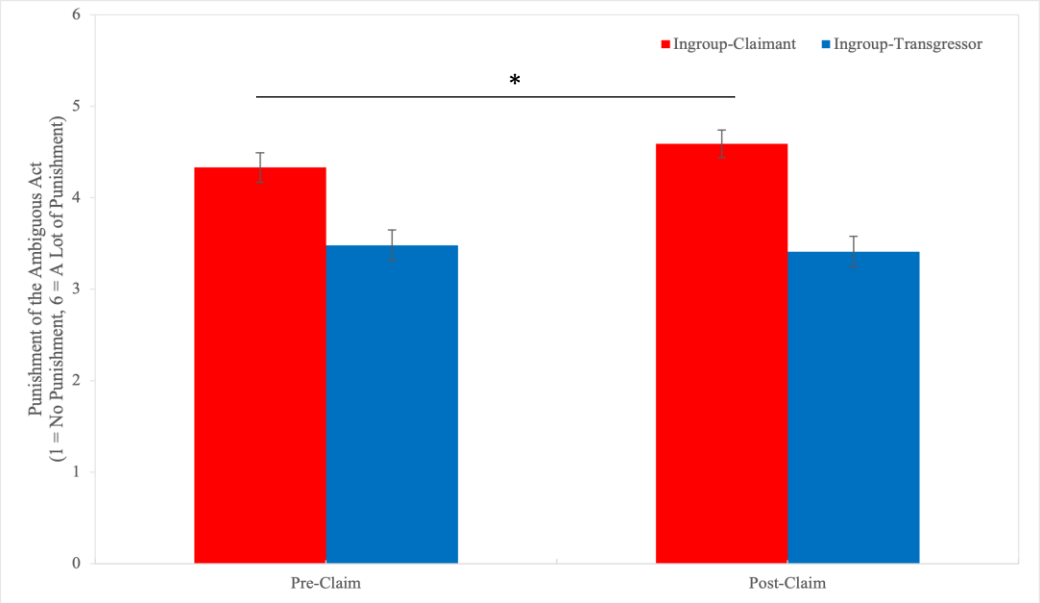

Figure 3. Punishment Decisions by Team Membership, Before and After the Claim**.** * $p < .05$.

Discussion

The current study was designed to investigate whether children's ingroup biases impact their evaluations of an ambiguous act, as well as of the unverified claim of wrongdoing in a competitive intergroup context. We hypothesized that children's ingroup biases would lead them to evaluate ambiguous acts more positively and punish them less when they shared a group membership with the potential transgressor. Further, we predicted that group identity would play an important role in children's evaluations of unsubstantiated claims and their underlying motives. Specifically, children who shared a group identity with the claimant would evaluate the

claim as more acceptable and the underlying motives of the claim more positively, compared to children who did not share a group identity with the claimant.

The novel findings were that children's ingroup biases impacted their evaluations of both the ambiguous act and the claim. Even though children possess the cognitive capacities necessary to evaluate whether a claim is sufficiently or insufficiently verified (Butler et al., 2018, 2020), in this intergroup context we found group identity had a significant impact on their endorsement of unsubstantiated claims. There were no differences in children's evaluations of the ambiguous act by team membership *before* a claim was made, but a strong difference *after* the claim, suggesting that ingroup bias affected children's willingness to accept the claim, even though it was unverified, and that this in turn influenced their evaluations afterwards.

Evaluating Ambiguous Acts

When evaluating an ambiguous act in a competitive, intergroup context, both children's age and their group identity impacted their responses. Older children who shared a group identity with the potential transgressor rated the ambiguous act more positively than older children who did not share a group identity with the potential transgressor. This builds on previous work showing that as children get older, especially in the late childhood years, they are more aware of group identity concerns when making intergroup decisions (D'Esterre et al., 2022; Rutland et al., 2015). In the current study, children who shared a group identity with the potential transgressor were less likely to assign punishment, while those who did not share a group identity assigned significantly more punishment. This finding adds nuance to our understanding of the ways in which ingroup bias impacts children's intergroup evaluations. Not only does ingroup bias impact evaluations of wrongdoing, but children felt strongly enough that an ambiguous act was a transgression that they were willing to punish the potential transgressor.

Previous research has shown that children's punishment decisions are impacted by numerous social-cognitive factors (Killen et al., 2011). For example, 3-8 year olds' decisions to punish an accidental transgressor were directly related to their understanding of intentions. In the current study, we did not have a measure of children's understanding of the intentions of the actor, only a measure of the acceptability of the ambiguous act. Children generally evaluated the ambiguous act as slightly not OK, regardless of team membership or age. It would be interesting for future work to investigate the role of children's mental state understanding in these evaluations: were children considering the underlying intentions and motives of the potential transgressor, and does mental state understanding impact punishment decisions in this competitive, intergroup context?

Unsubstantiated Claims

Group identity also impacted children's evaluations of unsubstantiated claims and their underlying motives. Participants showed a strong difference in their response to the unsubstantiated claim of cheating. Participants who did not share a group identity with the claimant evaluated the claim as less acceptable than participants who shared a group identity with the claimant. Further, children who did not share a group identity with the claimant were more likely to view the claim as being motivated by a desire to make the other team win, while children who did share a group identity with the claimant believed the claimant had positive intentions and really did witness cheating. Building on previous work showing that children consider group identity information when considering who to trust (Chen et al., 2011, 2013; Kinzler et al., 2011), the current study is one of the first to show that the ways in which children evaluate the legitimacy of epistemic claims about what is or is not true can be influenced or even undermined by intergroup processes. As described previously, the process of weighing evidence

and deciding what claims are likely to be accurate and truthful occurs in a social context. Claim-making involves assessments of complex contexts with a range of motives and intentions. These motives can stem from a fairness (moral) perspective, a group identity one, and other factors. This means that the social context in which claims are made play a profound role in how individuals reason about statements of truthfulness, entitlement, and blameworthiness. The current study shows that children are influenced by the social nature of this process, and particularly by their identification with both claimants and actors.

Heightened Ingroup Biases

Interestingly, witnessing the claim itself was related to children's ingroup biases. When examining children's evaluations of the act before the claim, children showed no differences based on group identity, but, after hearing the claim, children who shared a group identity with the potential transgressor changed their responses to be more supportive of the potential transgressor. In line with this, although ingroup bias does not necessarily entail outgroup dislike, children who shared a group identity with the claimant changed their decisions to punish the potential transgression, punishing more after the claim of wrongdoing than before the claim. Although it is possible that this finding was strengthened in part by the fact that this was the only way in which children could clearly demonstrate ingroup support, these findings nevertheless suggest that hearing the unsubstantiated claim of wrongdoing was associated with increased ingroup biases—children sharing a group identity with the potential transgressor evaluating the act more positively and children sharing a group identity with the claimant punishing more harshly. This novel finding provides interesting insights into the potential consequences of making unsubstantiated claims in intergroup contexts.

Conclusions

The current study provided a first step for increasing our understanding of how children evaluate and think about unverified claims in intergroup contexts. The participants in the current study had to balance issues of fairness, group identity concerns, and a competitive context, while evaluating ambiguous acts and unverified claims of wrongdoing. Overall, children were subject to ingroup biases in their evaluations of ambiguous acts, decisions to punish those acts, evaluations of unsubstantiated claims, understanding of the motivations underlying those claims, and their evaluations and punishments after a claim was made. Using an ad-hoc group, competitive context, we were able to demonstrate that, throughout childhood, children are complexly applying their social and cognitive skills to understand potential moral transgressions and unverified claims about those transgressions.

Interestingly, the current study highlighted that hearing an unverified claim by an outgroup member was associated with increased negative evaluations of an ambiguous act and of the claim itself. This provides an interesting avenue for future research: in which contexts is hearing an unverified claim associated with heightened ingroup biases? Daily life is filled with intergroup opportunities, and unverified claims ultimately arise. How do adolescents and adults navigate these situations and are they subject to the same ingroup biases as children? Additionally, how do these processes play out in the context of real social groups, such as race/ethnicity, class, religion, or even political groups? Future work should continue to investigate the roles of ingroup bias in children's, adolescents', and adults' intergroup evaluations of moral concerns and claims about those issues.

More broadly, this work has the potential for real-world implications, especially in the area of judicial proceedings and the potential for bias in undermining their legitimacy. Though impartial on its face, the fact is that the judicial system in the United States, to say nothing of that

of other countries, is plagued with racial disparities (Kovera, 2019). Though the causes of these disparities are the subject of much debate, ingroup bias has the potential to play a major role. The current study shows that the relationship between the group membership of an accuser, a potential transgressor, and the individuals assessing the legitimacy of an accusation and deciding punishment all matter. If individuals are more or less likely to accept an accusation if it comes from an ingroup member or is levied against an outgroup member, or if they judge a possible transgression as worse and deserving of greater punishment when it has been committed by an outgroup member, this could potentially undermine a great deal of trust in the impartiality of the justice system. Future research will need to grapple with this issue, investigating how children, adolescents, and adults weigh these issues in reasoning about more severe transgressions that might be the subject of actual judicial action, and identifying and testing out potential strategies for mitigating bias in judicial settings.

The current study also asked children to consider the underlying motives of the unverified claim. Understanding the potential motives underlying an unverified claim is a helpful tool in determining the legitimacy of that claim. For example, a claim that only has positive potential motives may be more trustworthy than a claim that could have negative motives (e.g., a desire to win, avoiding punishment). Future work should investigate how children think about unknown underlying motives for unverified claims, especially considering the role of mental state understanding. Children's abilities to infer the mental states of others (e.g., their beliefs, desires, intentions, known as Theory of Mind) likely influences their ability to accurately infer underlying motives. Future research could help elucidate the role of this cognitive skill in helping children understand verified and unverified claims.

This study has demonstrated the role of ingroup biases in children's evaluations of potential transgressions and unverified claims in competitive, intergroup contexts. This research provides a first step in combining our understanding of children's ingroup biases and intergroup interactions with our understanding of how children process and understand unverified claims. In every day social interactions children encounter both group processes and unverified claims, making it important for researchers to understand the complex ways the two processes interact.

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