



Published in final edited form as:

J Exp Soc Psychol. 2012 January ; 48(1): 264–270. doi:10.1016/j.jesp.2011.08.011.

White and Black American Children's Implicit Intergroup Bias

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Abstract

Despite a decline in explicit prejudice, adults and children from majority groups (e.g., White Americans) often express bias implicitly, as assessed by the Implicit Association Test. In contrast, minority-group (e.g., Black American) adults on average show no bias on the IAT. In the present research, representing the first empirical investigation of whether Black children's IAT responses parallel those of Black adults, we examined implicit bias in 7–11-year-old White and Black American children. Replicating previous findings with adults, whereas White children showed a robust ingroup bias, Black children showed no bias. Additionally, we investigated the role of valuing status in the development of implicit bias. For Black children, explicit preference for high status predicted implicit *outgroup* bias: Black children who explicitly expressed high preference for rich (vs. poor) people showed an implicit preference for Whites comparable in magnitude to White children's ingroup bias. Implications for research on intergroup bias are discussed.

Keywords

Intergroup bias; Implicit Association Test; Development; Social status

Despite a steep decline in explicitly expressed prejudice over the last several decades, people continue to hold negative intergroup attitudes at a less conscious, implicit level (Dovidio, 2001). Research on the Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998), the most commonly used measure of implicit bias, has provided robust evidence that adult members of majority groups implicitly favor their high-status ingroup. For example, up to 75% of adult White Americans show a significant degree of ingroup bias on the IAT (Nosek, Banaji, & Greenwald, 2002). In sharp contrast, minority-group adults (e.g., Black Americans) on average show no bias on the IAT (Nosek et al., 2002), suggesting that implicit bias may be modulated by awareness of the ingroup's social status (Baron & Banaji, 2009). The joint impact of ingroup preference and knowledge of groups' relative status may be unpacked by examining the development of implicit intergroup bias in minority-group children, for whom these two factors work in opposing ways (Dunham, Baron, & Banaji, 2008). In the present research, we addressed this issue in two ways, both of which may inform theories of mature social cognition. First, we contrasted implicit intergroup bias in 7–11-year-old White and Black American children, providing the first demonstration of whether Black children's IAT performance parallels that of Black adults.

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Second, we assessed implicit associations with and explicit preference for high status as potential predictors of children's implicit intergroup bias.

Few studies have assessed implicit intergroup bias in children. IAT research has shown that majority-group children (i.e., White American; White British; Japanese living in Japan) as young as 5–6 years of age show implicit ingroup bias of the same magnitude as majority-group adults (Baron & Banaji, 2006; Dunham, Baron, & Banaji, 2006; Rutland, Cameron, Milne, & McGeorge, 2005). Other implicit measurement techniques have revealed the same effect in White 3-year-olds, whose responses were similarly indistinguishable from those of adults (Dunham et al., 2008). These findings suggest that implicit intergroup bias is present at a very young age and remains highly stable throughout development, at least in members of socially dominant groups. Thus, implicit bias does not seem to emerge through slow learning of environmental regularities (e.g., negativity directed toward minority groups), as has been theorized (e.g., Fazio, Sanbonmatsu, Powell, & Kardes, 1986). Instead, as Dunham and colleagues (2008) have argued, implicit bias can emerge at adult-like levels in early childhood.

However, in order to fully test the generalizability of this argument, data from minority-group children is necessary. The sole published instance of IAT effects in minority-group children reported that 5–12-year-old Hispanic-American children showed ingroup bias when comparing the ingroup to Black Americans, a low-status outgroup, but not when comparing it to White Americans, a high-status outgroup; the same pattern emerged for adults (Dunham, Baron, & Banaji, 2007). These findings suggest that children are sensitive to groups' status even at the implicit level. However, an alternative interpretation is that Hispanic Americans often identify not only as ethnically Hispanic but also as racially White. Thus, the null result Dunham et al. (2007) observed on the White-Hispanic IAT may have resulted from pitting two valued ingroups against each other, whereas the Black-Hispanic IAT pitted an ingroup against an outgroup.

In the present research, we decoupled these interpretations by including Black American participants who are likely to see Blacks as an ingroup and Whites as an outgroup. We contrasted implicit intergroup bias in 7–11-year-old Black and White American children. Based on previous work indicating that interracial contact at school influences White children's intergroup attitudes (McGlothlin & Killen, 2010), we examined the impact of diversity in White children's school environment on implicit bias. Although most of our White participants attended majority-White schools, a small additional sample attended majority-Black schools—the same schools our Black participants attended. In line with prior research (e.g., Rutland et al., 2005), we predicted that White children's IAT responses would reflect a robust ingroup bias, regardless of level of interracial contact at school. We tested two possibilities regarding minority-group children that have been raised in the literature: That minority-group children first have an implicit ingroup bias that after a period of protracted learning is reduced by awareness of the ingroup's low status, or that implicit intergroup bias emerges early in an adult-like form (Dunham et al., 2008).

In addition, the majority of prior work on intergroup bias has not considered the fact that race and status are intimately connected in contemporary society (Oliver & Shapiro, 2006). However, two studies have suggested that status may play a role in implicit intergroup bias. As cited above, one interpretation of Dunham et al.'s (2007) finding that Hispanic children show an ingroup bias when the contrasting group is Blacks but not when the contrasting group is Whites is that they are sensitive to groups' status. More unambiguous evidence arises from Dunham et al.'s (2006) work showing that Japanese children living in Japan became increasingly sensitive to outgroups' status across development: Implicit ingroup bias relative to a high-status outgroup declined with age, whereas implicit ingroup bias relative to

a low-status outgroup remained strong and stable. Based on these findings, and on work suggesting that children associate racial groups with differing levels of status (Bigler, Averhart, & Liben, 2003; Radke & Trager, 1950), we predicted that children would care about status and would link status to race, and that these indicators of status-sensitivity would be associated with implicit intergroup bias.

Although there are several dimensions to status, we selected wealth because young children have an understanding of wealth disparities (Chafel, 1997; Weinger, 1998; Woods, Kurtz-Costes, & Rowley, 2005) and because, unlike many other dimensions of status, wealth can be easily perceived, making it a plausible candidate for how children infer status. We designed an IAT to tap into associations between race and wealth. We expected that White children might be especially likely to associate Whites (vs. Blacks) with wealth, because prior work has suggested that preschool-aged White children are more sensitive to race-status associations than are Black children (Shutts & Olson, 2011).

As an assessment of the extent to which children valued status, we measured their explicit attitudes toward the rich and the poor. Belonging to a minority group may lead children to be sensitive to cues about groups' status (Aboud, 1988; Tropp & Wright, 2003), because such cues conflict with favoritism toward the low-status ingroup (Dunham et al., 2008). We therefore predicted that expressing a strong preference for the rich over the poor (i.e., placing high value on status) might specifically predict Black children's implicit intergroup bias, such that the more Black children explicitly preferred the rich, the more likely they might be to show evidence of an implicit bias favoring *Whites*, the group more strongly associated with wealth and high status.

To summarize, we tested several predictions regarding implicit intergroup bias in young children. We predicted that whereas White children from both majority-White and majority-Black schools would show a robust implicit ingroup bias, Black children on average would show no implicit bias (mirroring findings with adults). We also predicted that White children would show an implicit association between Whites and wealth. Finally, because minority-group children may be sensitive to cues about status, we predicted that Black children's explicit preference for high status would predict their implicit intergroup bias. Including several predictors of implicit bias allowed us to extend prior developmental work, which has largely been descriptive in nature, with a focus on group differences.

Method

Participants

A total of 141 children completed the study. Data from Hispanic and Asian children ($N = 17$) and from one child whose race was not recorded were excluded from all analyses. The 123 children in the final sample (68 girls and 55 boys) were aged between 7 years, 0 months (84.3 months) and 11 years, 9 months (141.5 months), with a mean age of 107.9 months ($SD = 15.9$ months). Participants were recruited from six elementary schools. In three of these schools, the majority of students were White, whereas in the other three schools the majority of students were Black. All Black participants ($N = 55$; 31 girls and 24 boys; mean age = 113.1 months, $SD = 17.9$ months) were recruited from majority-Black schools. Of the White participants, 54 (31 girls and 23 boys; mean age = 104.8 months, $SD = 12.7$ months) attended majority-White schools and 14 (6 girls and 8 boys; mean age = 99.8 months, $SD = 12.3$ months) attended majority-Black schools. Unfortunately, we were unable to recruit Black students at the majority-White schools.

Measures

Implicit Association Tests—We used two IATs to assess the extent to which children implicitly associated Whites and Blacks with (a) positive versus negative valence (evaluative IAT) and (b) being rich versus poor (social status IAT). The IAT is a categorization task that estimates the relative strength of association between pairs of concepts. For instance, the evaluative IAT assessed the speed and accuracy with which children paired Whites and Blacks with positive and negative (“good” and “bad”) attributes. The greater the speed and accuracy with which one pairs White with good and Black with bad attributes, versus White with bad and Black with good attributes, the greater one’s implicit bias favoring Whites over Blacks. The social status IAT employed an identical procedure with the exception that instead of pairing Whites and Blacks with positive and negative attributes, Whites and Blacks were paired with things owned by rich versus poor people.

Our IATs differed from the traditional IAT procedure in two ways. First, to avoid confounds with reading ability, all stimuli were pictures rather than words. In both IATs, White and Black stimuli were faces of female and male White and Black children. In the evaluative IAT, “good” stimuli were pictures of four positive objects (i.e., a birthday present; flowers; puppies; a portion of ice cream) and “bad” stimuli were pictures of four negative objects (i.e., a house on fire; a car crash; a spider; a snake). In the social status IAT, “rich” stimuli were four “things that rich people own” (i.e., a nice house; a sports car; a large pile of money; an expensive video game console) and “poor” stimuli were four “things that poor people own” (i.e., a dilapidated house; a rusty car; a pile of pennies; an old-fashioned video game console). Second, to reduce task demands that may be onerous for young children, we reduced the length of the procedure by removing practice trials for the combined blocks and by decreasing the number of trials in each block (in the adult version of the IAT, blocks typically include 30–40 trials).

Children were asked to respond to each stimulus picture as quickly and accurately as possible by pressing one of two keys, indicated by stickers on the keyboard. The evaluative IAT consisted of five blocks in which the task was to categorize the following stimuli: (a) White and Black faces (10 trials); (b) pictures of good and bad things (10 trials); (c) White faces and good things, and Black faces and bad things (or Black faces and good things, and White faces and bad things; 20 trials); (d) White and Black faces, now on opposite sides than in the first block (10 trials); and (e) Black faces and good things, and White faces and bad things (or White faces and good things, and Black faces and bad things; 20 trials). The order of the critical blocks 3 and 5 was counterbalanced, as was the location (right vs. left) of the faces and the good and bad stimuli. The social status IAT was identical with the exception that instead of pictures of good and bad things, children categorized pictures of things that rich and poor people own.

The IATs were scored using the improved scoring algorithm (Greenwald, Nosek, & Banaji, 2003), which yields an effect size estimate (the IAT D score, a variant of Cohen’s d) for each participant. The D score represents the difference in mean response latency between critical blocks 3 and 5, divided by the pooled standard deviation. In the present study, D scores above zero reflected an association between Whites and positive valence (evaluative IAT) or between Whites and wealth (social status IAT).

Explicit Measures—We used two different types of measures to assess children’s explicit attitudes toward race and status. Five-point liking measures asked children to indicate how much they liked Whites and Blacks (1 = *I like Whites much better than Blacks*; 2 = *I like Whites a little better than Blacks*; 3 = *I like Whites and Blacks equally*; 4 = *I like Blacks a little better than Whites*; 5 = *I like Blacks much better than Whites*) and rich and poor people

(1 = *I like rich people much better than poor people*; 2 = *I like rich people a little better than poor people*; 3 = *I like rich people and poor people equally*; 4 = *I like poor people a little better than rich people*; 5 = *I like poor people much better than rich people*).

We also designed feeling thermometer measures for each target group. Children were given the following instructions: “In this task, we’d like you to think about how warm or cold you feel towards different kinds of people. You can tell us what you think by using a scale that looks like a thermometer. Your job is to draw a cross somewhere on the thermometer to show us how warm or cold you feel towards different kinds of people.” Children were given examples of how they might use the scale to report their attitude toward a person (“someone who always helps others and is really nice” and “someone who is sometimes mean but not always”) and then indicated, in four separate items, “How warm or cold do you feel towards White people/Black people/rich people/poor people?” (0 = *very cold* to 100 = *very warm*). Responses were scored by measuring the distance of the cross in millimeters from the beginning of the scale.

Procedure

Parental consent was secured in advance of school visits. Children received no compensation for participating; schools received gift certificates for a book store. Children completed the study individually in a private room at their schools, and were instructed by a same-race female experimenter. Children first completed the two IATs on a laptop computer, in a counterbalanced order (evaluative IAT first: $N = 62$; social status IAT first: $N = 61$), and next completed the two paper-and-pencil explicit measures, also in a counterbalanced order (liking measures first: $N = 66$; feeling thermometers first: $N = 57$). In order to ensure children’s assent to participate, experimenters told children they could discontinue the study at any point.

Results

Preliminary Analyses

Six participants (one White child from a majority-White school and five Black children) were excluded from all analyses due to standard criteria regarding error rates and extreme response latencies on the IAT (Greenwald et al., 2003), yielding a final sample size of 117. Degrees of freedom vary among the reported tests because one child did not complete the social status IAT, one child did not complete the explicit liking measures, and one child did not complete the feeling thermometers.

We combined the explicit attitude measures to form a single index of explicit preference for Whites over Blacks and a single index of explicit preference for rich over poor people. The liking measures were first reverse-scored so that higher scores indicated greater liking for Whites and rich people. Feeling thermometer scores were combined by subtracting the scores on the item for Blacks from the scores on the item for Whites, and the scores on the item for poor people from the scores on the item for rich people. The resulting difference scores were analogous to the liking measures, both reflecting relative preference for one group over another. Scores on the liking measures and the feeling thermometer difference scores were then standardized. The standardized scores were highly correlated, $r(113) = .58$, $p < .001$ for race and $r(113) = .57$, $p < .001$ for status, and were averaged to create one index of relative preference for Whites and one index of relative preference for rich people. These two indexes served as the explicit attitude measures; means and standard deviations are presented in Table 1. White children in majority-White schools expressed an explicit preference for Whites over Blacks, whereas Black children expressed an explicit preference for Blacks over Whites; thus, these children showed evidence of an explicit ingroup

preference. The remaining means were not significantly different from zero (which represented equal preference for the target groups).

IAT Effects

Evaluative IAT *D* scores were significantly greater than zero for White children in majority-White schools ($M = 0.45$, $SD = 0.43$), $t(52) = 7.59$, $p < .001$, and for White children in majority-Black schools ($M = 0.35$, $SD = 0.29$), $t(13) = 4.44$, $p = .001$, but did not differ from zero for Black children ($M = -0.01$, $SD = 0.47$), $t(49) = -0.14$, $p = .889$ (see Figure 1). Thus, replicating previous findings with adults (Nosek et al., 2002) and as predicted, we found that whereas both groups of White children showed an implicit ingroup bias, Black children on average showed a lack of implicit bias. This finding is the first empirical demonstration that Black American children show the same evaluative IAT effect as Black American adults.

Paralleling the results for the evaluative IAT, social status IAT *D* scores were significantly greater than zero for White children in majority-White schools ($M = 0.29$, $SD = 0.45$), $t(52) = 4.58$, $p < .001$, marginally greater than zero for White children in majority-Black schools ($M = 0.12$, $SD = 0.24$), $t(13) = 1.88$, $p = .082$, and not different from zero for Black children ($M = 0.00$, $SD = 0.46$), $t(48) = 0.01$, $p = .993$ (see Figure 1). This pattern represents the first evidence that White, but not Black, American children implicitly associate their racial ingroup with wealth and high status.¹ Scores on the two IATs were correlated for White children in majority-White schools, $r(51) = .40$, $p = .003$, and for Black children, $r(47) = .39$, $p = .005$. Although the magnitude of the correlation was similar for White children in majority-Black schools, it did not reach significance in this smaller sample, $r(12) = .33$, $p = .247$.

Children's age was not significantly correlated with evaluative IAT *D* scores, $r(65) = -.08$, $p = .515$ for White children, $r(48) = .15$, $p = .295$ for Black children, or with social status IAT *D* scores, $r(65) = -.03$, $p = .783$ for White children, $r(48) = .04$, $p = .782$ for Black children. Comparing the IAT performance of children under the age of 110 months (median age) to those above the age of 110 months revealed substantial developmental stability for both IATs (see Figure 2). White children showed a significant implicit ingroup bias and a significant association between Whites and wealth regardless of age group, $ps \leq .003$, whereas Black children's IAT scores were not significantly different from zero for either age group, $ps \geq .686$. These findings yield strong support for the novel theoretical view that implicit bias does not require protracted social learning (Dunham et al., 2008). By age 7, Black children on average show no evidence of ingroup bias on the IAT, indicating that awareness of the ingroup's low status may interfere with implicit bias early in development—a pattern that remains into adulthood (Nosek et al., 2002).

¹We conducted a pilot study in which 10 White children from a majority-White school (aged 88–132 months; 7 girls and 3 boys) completed the evaluative and social status IATs and the explicit attitude measures employed in the main study, as well as a third IAT assessing implicit evaluations of high and low status (i.e., pairing “rich” and “poor” with positive and negative valence). Although power was very low with this small sample and all correlations were therefore nonsignificant, the evaluative and social status IATs were positively related as in the main study, $r(8) = .25$. Adjusting for performance on the status-evaluation IAT did not markedly impact this relationship, partial $r(7) = .23$. Thus, these pilot data support our argument that the social status IAT assessed an implicit association between race and status, instead of merely representing a different form of implicit evaluation of Whites and Blacks.

²We also conducted a 2 (Children's Race: White vs. Black) \times 2 (IAT Order: evaluative vs. social status IAT completed first) \times 2 (IAT Type: evaluative vs. social status) mixed-model analysis of variance, with the last factor varying within-subjects. The main effect of Children's Race was significant, $F(1, 112) = 25.20$, $p < .001$, $\eta^2_p = .18$. Across the two IATs, White children ($M = 0.34$, $SE = 0.05$) scored higher than Black children ($M = -0.01$, $SE = 0.05$). The Children's Race \times IAT Type interaction approached significance, $F(1, 112) = 3.82$, $p = .053$, $\eta^2_p = .03$. Whereas White children scored higher on the evaluative IAT ($M = 0.42$, $SE = 0.05$) than on the social status IAT ($M = 0.26$, $SE = 0.05$), $F(1, 112) = 7.85$, $p = .006$, Black children's scores did not differ between the IATs (evaluative IAT: $M = -0.01$, $SE = 0.06$; social status IAT: $M = 0.00$, $SE = 0.06$), $F(1, 112) = 0.04$, $p = .842$. No significant effects were associated with IAT Order.

Regression Analyses

To examine potential predictors of children's implicit intergroup bias, we conducted a hierarchical regression analysis with evaluative IAT *D* scores as the criterion variable (see Table 2). In Step 1, the predictors were children's own race (0 = Black, 1 = White), social status IAT *D* scores (mean-centered), explicit preference for Whites (mean-centered), and explicit preference for rich people (mean-centered). Children's race was a significant predictor of implicit bias, such that White children showed a stronger bias (favoring Whites) than did Black children, $\beta = .30, p = .001$. Social status IAT scores predicted implicit bias positively, such that children who implicitly associated Whites with wealth also more strongly associated Whites with positivity, $\beta = .34, p < .001$. Explicit preference for Whites predicted implicit bias marginally positively, such that explicitly preferring Whites was associated with stronger implicit bias favoring Whites, $\beta = .15, p = .082$. Explicit preference for rich people was not associated with implicit bias, $p = .806$.

These relationships remained significant in Step 2, in which the interactions of children's own race with each of the other variables were added as predictors, resulting in a significant increase in explained variance, $\Delta R^2 = .06, F_{\text{change}}(7, 108) = 3.38, p = .021$. The children's race \times explicit preference for rich people interaction was significant, $\beta = -.36, p = .007$. Simple slopes analyses indicated that whereas explicit preference for the rich was not associated with White children's implicit bias, $\beta = -.14, p = .273$, this variable was a significant predictor of Black children's implicit bias favoring Whites, $\beta = .35, p = .008$ (see Figure 3). To the extent that Black children explicitly preferred rich people, they also implicitly associated Whites, their *outgroup*, with positivity. Indeed, as shown in Figure 3, Black children with a high explicit preference for the rich showed an implicit bias favoring Whites comparable in magnitude to White children's implicit ingroup bias. The other interactions were nonsignificant, $ps = .112 - .558$. Adjusting for children's age did not impact the results, nor was age a significant predictor, $p > .500$.³

Discussion

The present research addressed a variety of central questions regarding young children's implicit intergroup bias. Replicating prior research on majority-group adults and children (Baron & Banaji, 2006; Nosek et al., 2002; Rutland et al., 2005), we found that 7–11-year-old White American children's IAT performance reflected a significant degree of implicit ingroup bias. In contrast, Black American children's responses paralleled those of Black American adults in prior studies (Nosek et al., 2002), on average showing a lack of implicit bias. These results contribute substantially to the body of evidence regarding the development of implicit intergroup bias, aligning with the view that implicit bias does not emerge through slow social learning but rather appears early in adult-like magnitude and remains highly stable through development (Dunham et al., 2008).

Considering the potential impact of diversity in children's everyday environment, we found that White children attending schools in which the majority of students were Black showed an implicit ingroup bias statistically indistinguishable from that of White children attending majority-White schools. Thus, whereas more explicit assessment of intergroup bias through reactions to ambiguous situations involving Black and White protagonists revealed a significant bias-reducing impact of racial heterogeneity in White children's school environment (McGlothlin & Killen, 2010), implicit assessment of bias in the present study yielded no evidence of such impact. This is particularly interesting given that White children

³Excluding the 14 White children attending majority-Black schools from the regression analyses yielded exactly the same pattern of results.

attending majority-Black schools may have significantly lower status, or may be more stigmatized, than White children attending racially heterogeneous or majority-White schools. The fact that these children regardless showed the same level of implicit ingroup bias as White children from majority-White schools attests to the robustness of majority-group children's ingroup bias. Similarly, both groups of White children showed evidence of an implicit association between their racial ingroup and wealth, an association not evident in Black children's responses. Although future research will benefit from examining the correlates of this association, as well as its potential existence in adults, the present findings contribute novel evidence regarding children's awareness of groups' relative status, indicating that such awareness is present at the implicit level at a young age (see also Dunham et al., 2006, 2007).

The present results also shed light on the predictors of children's implicit bias. Most interestingly, explicit preference for rich people predicted Black children's implicit bias: Black children reporting strong explicit preference for the rich showed evidence of an implicit bias favoring Whites, their *outgroup*, that was comparable in magnitude to the implicit *ingroup* bias shown by White children. In contrast, Black children reporting low levels of explicit preference for the rich showed a lack of implicit bias. These findings suggest that awareness of the ingroup's low status may indeed influence Black American children's implicit intergroup bias, particularly when comparing the ingroup to a high-status outgroup. To the extent that Black children explicitly favor the rich, this preference runs counter to ingroup favoritism; for White children, preference for the rich and for the racial ingroup do not conflict in this way. We suggest that attitudes toward status represent an important element in the development of intergroup bias.

Consistent with this suggestion, implicit association between Whites and wealth positively predicted both White and Black children's implicit intergroup bias, such that regardless of race, children who showed evidence of an implicit association between Whites and wealth also implicitly associated Whites with positivity. Although we cannot rule out the possibility that method variance may account for a portion of the relationship between the two IATs, prior developmental research has commonly found low or nonsignificant correlations among IATs (e.g., Dunham et al., 2007). In addition, the finding that explicit preference for the rich predicted Black children's implicit bias in the present study lends further confidence to the proposed relationship between attitudes toward race and status. Future research may fruitfully examine this relationship more directly by, for instance, experimentally manipulating groups' relative status before assessing children's intergroup bias.

Whereas previous research has typically reported nonsignificant correlations between children's and adults' explicit and implicit intergroup bias (Dovidio, Kawakami, & Beach, 2001; Rutland et al., 2005), in the present study, explicit preference for Whites emerged as a positive predictor of implicit bias favoring Whites, a relationship that was not moderated by children's own race. This association may not have been evident in prior developmental research because previous studies have typically employed bivariate indexes of association (e.g., Rutland et al., 2005). Supplementary analyses of the present data showed that the correlation between explicit and implicit intergroup bias did not reach significance for either White or Black children. The association between children's explicit and implicit intergroup bias may be obscured if other variables (e.g., children's own race, attitudes toward status) are not adjusted in multivariate analyses. Finally, together with the findings that White children's responses replicated prior findings with the full-length IAT and that Black children's responses replicated prior findings with Black adults, the association between implicit and explicit bias supports the validity of our reduced-length IAT. Decreasing the length of the IAT procedure may be a valuable strategy for assessing implicit bias in young

children, who tend to have limited attention spans and from whom researchers may wish to attain data on more than one IAT.

While the present findings are novel and extend prior research in promising ways, we acknowledge limitations, at the forefront of which are the limited sample size of White children attending majority-Black schools and the lack of a sample of Black children attending majority-White schools. Future research would benefit from addressing these limitations. However, we believe that the present findings represent an important step toward better understanding the development of implicit intergroup bias. Racial and ethnic relations continue to be complex in contemporary society, and understanding the antecedents of interracial conflict is of critical importance for interventions aimed at fostering positive intergroup relations. We propose that developmental research may hold unique potential in this context by providing insight into the psychological mechanisms by which intergroup bias emerges.

Highlights

> We examined implicit intergroup bias in White and Black American children. > White children showed an implicit ingroup bias, but Black children showed no bias. > Explicit preference for high social status predicted implicit *outgroup* bias for Black children. > Attitudes toward social status may contribute to the development of implicit intergroup bias.

Acknowledgments

We thank Arianne Eason, Anna Merrill, Nina Slywotzky, Tamique Ridgard, Tiffany Polk, Sylvia Perry, and Amanda Armour for assistance with data collection, and Yarrow Dunham, Sylvia Perry, Jennifer Barnes, and Erin L. Thomas for feedback on drafts of this manuscript. This research was made possible by Grant Number 059996 from NICHD. The contents are solely the responsibility of the authors and do not necessarily represent the official views of NICHD.

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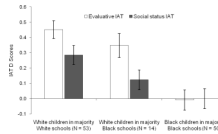


Figure 1. Mean IAT *D* scores broken down by children’s race and type of school. Above zero = implicit association between Whites and positivity and between Whites and high status. Error bars represent standard errors of the mean.

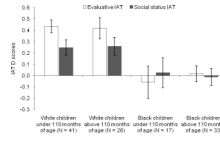


Figure 2. Mean IAT *D* scores broken down by children’s race and age, indicating developmental stability for all children. Age 110 months = 9 years, 2 months (median age). Above zero = implicit association between Whites and positivity and between Whites and high status. Error bars represent standard errors of the mean.

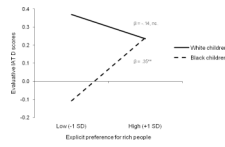


Figure 3. Children's race and level of explicit preference for rich people as interactive predictors of evaluative IAT *D* scores. Above zero = implicit association between Whites and positivity. ** $p < .01$.

Table 1

Means and standard deviations of explicit attitudes.

	Relative preference for Whites	Relative preference for rich people
White children in majority-White schools ($N = 53$)	0.26 (0.61) **	-0.16 (0.75)
White children in majority-Black schools ($N = 14$)	0.32 (1.12)	0.02 (0.98)
Black children in majority-Black schools ($N = 50$)	-0.41 (0.85) **	0.12 (0.90)

Note. Standardized scores. Above zero = preference for Whites/rich people over Blacks/poor people. Standard deviations are presented in parentheses.

** Mean is significantly different from zero, $p < .01$.

Table 2

Standardized regression coefficients from a hierarchical regression model predicting implicit intergroup bias favoring Whites over Blacks.

Predictor	Step 1	Step 2
Children's race (0 = Black, 1 = White)	.30**	.24**
Social status IAT	.34***	.26*
Explicit preference for Whites	.15 ⁺	.45**
Explicit preference for rich people	.02	.35**
Children's race × social status IAT		.07
Children's race × explicit preference for Whites		-.21
Children's race × explicit preference for rich people		-.36**
R ²	.35	.40

⁺ $p = .082$,

* $p < .05$,

** $p < .01$,

*** $p < .001$