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Race Attitudes in Cultural Context: The View From Two Brazilian States

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The development of implicit and explicit racial attitudes were investigated in 542 White, Pardo, and Black Brazilian children and adolescents (aged 6 to 14) from 2 different regional contexts that vary dramatically in their racial diversity, Bahia (BA) and Rio Grande do Sul (RS). Results revealed the pervasive presence of race biases favoring higher status groups across multiple measures of implicit and explicit attitude. Contextual differences were also apparent, particularly in measures of group identification: Children from the more diverse context (BA), including Black children, identified themselves more strongly with lighter skin tones, particularly with Whites. Implicit attitudes were stable with age, whereas explicit attitudes generally showed less bias as a function of age. Implicit and explicit racial preference were related in younger but not older children, providing evidence of increasing divergence across early development. Differences between our findings and those reported from other regions underscores the need for greater diversity in our research efforts.

Keywords: intergroup bias, implicit attitudes, prejudice, development, social cognition

Research on the development of intergroup attitudes has a long and esteemed history within social and developmental psychology (Aboud, 1988; Bigler & Liben, 2006; Dovidio & Gaertner, 2010). Attitudes toward racial groups probably represent the primary focus of this literature, with numerous past studies demonstrating that majority children (e.g., Whites in the United States) manifest robust preferences for their racial ingroup beginning in the preschool years. These preferences appear on both self-reported explicit measures (reviewed in Aboud, 1988; Raabe & Beelmann, 2011) as well as more automatic or implicit measures such as the Implicit Association Test (IAT; reviewed in Dunham, Baron, & Banaji, 2008; Olson & Dunham, 2010).

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Although impressive in many respects, this literature has several limitations. First, studies disproportionately focus on members of culturally dominant majorities such as White Europeans or Americans. Second, studies disproportionately focus on a few cultural distinctions, most prominently Whites and Blacks in the United States. Third, even when cultural variation is taken seriously, such work rarely examines within-culture variation, instead treating entire nations as cultural monoliths. Fourth and finally, most past investigations focus on only one or two dependent measures, leaving questions as to whether different measurement strategies converge or diverge in revealing prejudicial attitudes in children (Degner & Wentura, 2010; Dunham & Degner, 2013).

The present research addresses these limitations in an exploration of the development of intergroup attitudes in Brazil. We include participants from the three largest racial groups in Brazil, Whites, Blacks, and mixed-race Pardo ("brown") children. We include an independent sample drawn from each of these racial groups in two Brazilian states that vary dramatically in terms of their racial diversity. And we incorporate multiple explicit and implicit measures toward all three racial groups in a within-participants design, allowing us to characterize intergroup cognition in more detail than has been accomplished by most past studies. By addressing these gaps in the literature this work can also contribute to theory development in several ways. First, by addressing within-culture variation in a novel cultural context, we provide valuable information about the generalizability of past findings concerning the relationship between status and intergroup attitudes, as well as the relationship between implicit and explicit

attitudes. Second, a wide range of measures, including measures of implicit and explicit prejudice that focus on the broad categories as well as on individual category members, allows us to contribute to efforts to understand how and when prejudice begins to be automatically engaged upon encountering racial outgroups.

Children begin to attend to race categories in the preschool years, with at least a general sensitivity to racial variation emerging by age 4 (Aboud, 1988; Dunham, Dotsch, Clark, & Stepanova, 2016; Dunham, Stepanova, Dotsch, & Todorov, 2015). Turning to racial attitudes, research with cultural majorities such as White Americans or White British children demonstrates that the developmental course of implicit and explicit attitudes differ dramatically. Specifically, with age, there is a decrease in explicit prejudice, but there is generally no age-related change in implicit prejudice between childhood and adulthood (reviewed in Dunham et al., 2008; Raabe & Beelmann, 2011). The decline of explicit prejudice can be attributed to the internalization of egalitarian social norms as well as an increasing likelihood of suppressing the expression of socially charged responses (e.g., Rutland, Cameron, Milne, & McGeorge, 2005). Implicit prejudice appears to be less affected by such factors and has been conceptualized as the joint produce of tendencies toward ingroup preference and high-status preference (Dunham et al., 2008). The finding that members of high-status cultural majorities show robust and developmentally stable implicit ingroup preference has now been reported in the United States (Baron & Banaji, 2006; Dunham, Baron, & Banaji, 2006; Dunham, Chen, & Banaji, 2013; Newheiser & Olson, 2012), the United Kingdom (Rutland et al., 2005), Japan (Dunham et al., 2006), Taiwan (Dunham et al., 2013), central Europe (Degner & Wentura, 2010), and India (Dunham et al., 2014).

As soon as we move beyond the culturally dominant majority, however, the picture becomes considerably more complex. Although members of socially dominant racial groups present strong in-group preference, members of nondominant groups tend not to show such preferences, and in some cases even show a reversal to outgroup preference. In the case of race attitudes in North America, Black adults (Nosek, Banaji, & Greenwald, 2002) and Black and Latino children (Dunham et al., 2013; Dunham, Baron, & Banaji, 2007; Newheiser & Olson, 2012) show a mean-level pattern of no preference on both implicit and explicit measures, at least when comparing themselves to the White majority. In the South African context, where status disparities between racial groups are much more pronounced than in the United States, both Black and mixed-race children also showed outgroup preference on both implicit and explicit measures (Dunham et al., 2014; Newheiser, Dunham, Merrill, Hoosain, & Olson, 2014), as do low-caste children in India (Dunham et al., 2015). These findings bring home the critical role that data from a broad range of cultures can play in constraining theory; for example, they show that even early in development ingroup favoritism is not a cultural universal. The current investigation, which includes children from three racial groups in two regions differing dramatically in diversity, can shed additional light on the emerging dynamics of racial prejudice.

Another important caveat concerning these findings is that they were almost all based on the IAT (Greenwald, McGhee, & Schwartz, 1998). The IAT has been the most widely used implicit measure of children's racial attitudes (McKeague, Driscoll, Hennessy, & Heary, 2015), but it does have some limitations. First, the IAT measures category-level prejudice, in that the measure requires participants to explicitly categorize by race. Thus, it is measuring the extent to which racial categories are associated with positivity or negativity, but it does not necessarily correspond to the extent to which individual category exemplars are evaluated (Degner & Wentura, 2010; Dunham & Degner, 2013; Olson & Fazio, 2003). Second, the IAT produces a relative score indicating implicit bias in favor of one group over another. In the White versus Black IAT, for example, the IAT score indicates the relative preference for White over Black. But because a relative preference can be composed of a range of attitudes, the IAT cannot distinguish between a bias created by (e.g.) one positive and one negative evaluation versus one very positive and one mildly positive evaluation. Substantively, however, those two states of affairs are quite different. Thus, incorporating measures beyond the IAT offers considerable value. In the approach pursued here we also incorporate an evaluative priming task (EP; Fazio, Jackson, Dunton, & Williams, 1995), a measure involving soliciting rapid responses to photographs of racial ingroup and outgroup individuals. Unlike the IAT, which taps broad category-based evaluations, available evidence suggests that implicit prejudice as measured by EP stems from automatic evaluations of individual category exemplars. Perhaps as a consequence, implicit bias as measured by EP is less widely present in adults (Olson & Fazio, 2003) and may follow a different developmental course in children. In particular, in a study of White European children's attitudes toward ethnic minorities (Degner & Wentura, 2010), implicit own-group favoritism appeared earlier using the IAT than EP, suggesting that children acquire evaluations of broad social categories quite early but do not necessarily automatically draw on those categories to classify others until somewhat later in development (Degner & Wentura, 2010; Dunham & Degner, 2013). However, this possibility has not been explored outside the European context, leaving its generality unknown. Thus, our investigation will both test the generality of the pattern reported by Degner and Wentura (2010) and also allow us to determine whether patterns of prejudice that appear on the IAT are primarily driven by ingroup positivity, outgroup negativity, or both. This data is critical for theory development because different authors have reached different conclusions concerning the role of outgroup negativity in children's prejudice (Aboud, 2003; Bigler & Liben, 2007; Nesdale, 2004).

In sum, past research suggests two broad conclusions. First, children who belong to higher status groups develop ingroup-favoring evaluations of racial categories early in development. Second, prevailing conceptions of social status moderate intergroup attitudes, eliminating or even reversing own-group favoritism in members of disadvantaged or stigmatized groups. However, as we note above, this work has been limited in the range of populations studied, as well as the variety of measures employed. With respect to the former issue, attention is increasingly being drawn to the extent to which individuals from western, educated, industrial, rich, and democratic settings (Henrich, Heine, & Norenzayan, 2010), despite making up the bulk of the literature, may not be representative of children from other cultural backgrounds (Nielsen, Haun, Kärtner, & Legare, 2017).

With respect to the small set of measures that have frequently been used, a rich view of race-related cognition requires exploring how attitudes emerge and change with respect to measures that assess attitudes toward broad racial categories as well as measures that assess attitudes toward individual racial category exemplars.

This is particularly critical because only the latter sort of measure can be interpreted as reflecting prejudice automatization, that is, as the habitual use of prejudice (Degner & Wentura, 2010). Our investigation thus incorporates multiple measures of each central construct to better capture the structure of children's emerging racial cognition. We now turn to a discussion of the cultural context of the present study, two quite different states in Brazil, before providing a final overview of the study's methods and goals.

Placing Culture in Context

Several factors make the racial context of Brazil unique, and therefore an important data point in understanding cultural variability in intergroup cognition. First, the racial continuum in Brazil includes not only the White and Black categories, but also Pardos, a multiracial or mixed-race intermediate racial category. Second, different regions of Brazil differ markedly in their racial diversity, meaning that familiarity with racial difference, and the salience of race in everyday life differ dramatically. We will discuss each of these points in turn.

In understanding the system of racial classification used in Brazil it is first important to note that there is no universally accepted definition of what Pardo actually means. Most commonly, a *Pardo* is defined as someone who is toward the middle of the White–Black continuum in skin color, but depending on the perceiver and the context, the same Pardo person may be categorized as White, Pardo, or Black. The precise nature of racial categories in Brazil has been a topic of some controversy, but it seems clear that, unlike the United States, where origin and ethnicity play an important role in racial categorization, in Brazil race is defined mainly by phenotype, with skin color and facial features as the main cues for categorization (Chen, de Paula Couto, Sacco, & Dunham, 2018; Telles, 2002). A consequence is that parentage is not always treated as the determining fact of racial category membership. Given the perception that there are no clear objective criteria for racial categorization, the Brazilian government has officially adopted a self-classification system for race that is used in national surveys and censuses (Brazilian Institute of Geography and Statistics [IBGE], 2011a; Telles, 2002). This ambiguity or flexibility in self-categorization is interesting in the present context because it opens the possibility that children's racial identifications will be affected by factors like the diversity they experience or their views of the status disparities between groups, something we examine in our study.

In Brazil, racial labels are a cue to social and economic status, which explains why self-whitening may be used as a mechanism for upward mobility (Chen et al., 2018). Some commentators have suggested that widespread racial and ethnic diversity renders Brazil a postracial country, but this view is hard to reconcile with actual data (Da Costa, 2016). Most notably, social and economic inequality in Brazil is directly related to race (IBGE, 2011a). For example, homicide rates are 167% higher for Pardo and Black victims than White victims, and the family income of White households is 75.2% higher than that of Pardos and Blacks (Waiselfisz, 2014). Although both Pardos and Blacks tend to be of lower socioeconomic status, Blacks are generally more stigmatized via association with negative stereotypes, including poverty, laziness, and violence (Telles, 2002), which may explain why some people self-categorize as Pardo rather than Black.

In characterizing the racial climate of a large country such as Brazil, it is crucial to emphasize the remarkable cultural differences between regions. Most notable in the present context, some states are predominantly multiracial while others are largely White. Our investigation focuses on two regions that capture this variation. Rio Grande do Sul (hereafter RS), the southernmost Brazilian state, has much European influence via historic links with and immigration from Germany and Italy. Not surprisingly, it presents the second highest national discrepancy in the nation between the percentage of White (84%) and Black (6%) people (IBGE, 2011b). In contrast, Bahia (hereafter BA), in the Northeast, is a state with predominantly African heritage originated from the period of slavery. The origins of the slaves that came to Brazil were not well documented by the Portuguese, and this is probably one of the reasons why the ethnic diversity of the Black population in Brazil is not as emphasized as it is in the US. Still, BA shows the highest percentage in the nation of people declaring themselves Black (17%) and Pardo (59%).

The fact that racial composition in Brazil depends heavily on cultural/regional context makes it important to explore whether race attitudes are dependent on cultural context and the presumably different levels of exposure to racial variation. In particular, it raises the question of whether children from RS, for whom Whiteness is the overwhelming norm, might show stronger preferences for Whites than do children from BA, for whom Whites are a minority and who are more generally exposed to greater racial diversity. This possibility is also bolstered by the fact that positive interracial contact (Hewstone & Swart, 2011; McGlothlin & Killen, 2010) as well as greater ability to individuate members of outgroups (Lee, Quinn, & Pascalis, 2017) is associated with diminished intergroup prejudice. However, the relationship between diversity and intergroup attitudes is complex, and in some cases, diversity is actually associated with *greater* rather than lesser prejudice, perhaps because some experiences of diversity are characterized primarily by conflict rather than productive intergroup interactions (Rae, Newheiser, & Olson, 2015). By focusing our study in these two regions of Brazil, we aimed to investigate the influence of culture in a developmental context.

The Current Study

The present research takes the Brazilian context into account and adopts a social–cognitive developmental approach to understanding the development of implicit and explicit racial attitudes in White, *Pardo*, and Black children from two different contexts, BA and RS. More specifically, our framework is Developmental Intergroup Theory (DIT; Bigler & Liben, 2006). DIT highlights the role of several factors we investigate in this work, in particular the interplay of ingroup bias, that is, a tendency to prefer groups to which one belongs, and explicit and implicit attributions, that is, cultural values that are attached to groups, particularly groups that vary in social status. These two factors imply that intergroup attitudes will vary markedly for children who belong to groups that differ in social status because of the differential effect of those cultural attributions. Capturing these potential effects requires including children who belong to groups that vary in terms of their social status. Further, DIT suggests that proportional group size is

an important input into intergroup reasoning, such that smaller minorities become more salient by virtue of their lower frequency. By looking at the development of intergroup attitudes in children living in states in which the degree of representation of their group varies dramatically we can examine this prediction as well. In addition to the theoretical value of exploring diverse children in demographically diverse regions, this inclusiveness also reflects an attempt to do justice to the considerable complexity of race in Brazil.

We also included a larger range of measures than have been used in most past studies, including both a category-based and exemplar-based measure of implicit attitudes (the IAT and EP), as well as several distinct measures tapping explicit social attitudes. This range of measures allows us to paint a richer picture of the development of intergroup social cognition in these two cultural settings within Brazil.

Our primary questions of interest was how attitudes varied as a function of participant race, state, and age; answers to these questions will allow us to assess the generalizability of past research from the United States and South Africa, as well as to test hypotheses derived from contact theory concerning the link between diversity and prejudice. Secondary questions concern the relationship between measures, especially the relationship between implicit and explicit measures of attitude and between category- and exemplar-based measures. Based on the literature reviewed above, we predicted that we would observe stronger own-race preferences in White children as compared to Pardo children, and in Pardo children as compared to Black children. We also anticipated that the strength of explicit race bias would show an age-related decline in all groups. For implicit race bias, however, we expected no age-related change on the IAT, and the possibility of age-related increase on EP (Degner & Wentura, 2010). Finally, we expected to see stronger race-based preferences in children in the less diverse region of RS where contact experiences are less frequent.

Method

Participants

The total sample consisted of 542 Brazilian children and adolescents (262 boys and 280 girls), 399 from RS (188 boys and 211 girls, age range: 6 to 14 years old, $M = 9.19$, $SD = 2.06$ years, 46.1% White, 39.1% Pardo, and 14.8% Black) and 143 from BA (74 boys and 69 girls, age range: 6 to 14 years old, $M = 8.53$ years, $SD = 1.79$ years, 23.1% White, 53.8% Pardo, and 23.1% Black). Own race categorization was a self-report measure in this study. Participants were specifically asked how they categorized themselves in terms of race/skin color: White, Pardo or Black. Children and adolescents were tested in their schools and parental consent was secured in advance of all testing. Basic categorization and racial understanding ability were assessed prior to testing by a categorization task in which participants had to categorize photographs of children according to the background color of the image, the child's race, and the child's sex. Only one child was unable to categorize by race and thus was excluded from the sample.

Measures

We used two implicit measures of attitudes: The EP task (Fazio et al., 1995) and the child-friendly version of the IAT (Greenwald, Nosek, & Banaji, 2003), adapted from Newheiser and Olson (2012). Two explicit measures were also used to assess participant's attitudes: Group identification and explicit racial attitude. We also collected data on two other exploratory measures: Association between race and wealth, and preference for race and social status, but did not report them in the interests of brevity. More information is available upon request.

Implicit Measures

EP. EP is a reaction time (RT) measure in which participants rapidly evaluate targets that are either positive or negative. Each target is preceded by a prime, that is, a stimulus that can influence subsequent evaluations (in this case color 425 × 425 pixel photographs). The logic of EP is that if prime and target have the same valence there is facilitation (i.e., responses are faster), although if prime and target have different valences there is interference (i.e., responses are slower).

The priming manipulation comprised a 5 (prime image type: positive vs. negative vs. White vs. Pardo vs. Black) × 2 (target image valence: positive vs. negative) within-participants design. The target images were 25 positive pictures ($M_{valence} = 7.56$, $SD = .52$; $M_{arousal} = 4.93$, $SD = .81$) and 25 negative pictures ($M_{valence} = 2.76$, $SD = .35$; $M_{arousal} = 5.15$, $SD = .75$) selected from the International Affective Picture System (IAPS; Lang, Bradley, & Cuthbert, 2008). Pretesting indicated that the images differed with regard to valence, $t(48) = 38.15$, $p < .001$, $d = 11.16$, but not with regard to arousal, $t(48) = -1.02$, $p = .31$, $d = -.28$.[1]

For the prejudice-related primes, we used 30 pictures to represent White, Pardo and Black children. We selected these pictures from the White, Pardo, and Black Children Picture Set (BIC-Multicolor; Sacco, de Paula Couto, & Koller, 2016). The BIC-Multicolor is a pool of 117 pictures pretested with Brazilian adults, who rated the pictures according to the children's race, facial expressions, and pleasantness. Table 1 presents the average prime ratings for the three groups of primes among participants from RS and BA. As can be seen in Table 1, prime ratings only differed with regard to race. We selected pictures with >80% of agreement with regard to race in BA and RS and that did not differ in facial expression and pleasantness within states.

We also included pictures from the IAPS (Lang et al., 2008) as standard primes to obtain a reference priming effect with standardized stimuli. The standard prime set consisted of five positive and

[1] The set of target stimuli included the following IAPS pictures (slide numbers):1,410, 1,440, 1,441, 1,460, 1,710, 1,721, 1,750, 1,920, 5,210, 5,621, 5,760, 5,829, 5,831, 5,833, 7,220, 7,330, 7,350, 7,405, 7,410, 7,451, 7,460, 7,492, 7,502, 8,162, 8,350 (positive) and 2,683, 2,691, 2,722, 2,750, 6,213, 6,571, 7,359, 7,380, 9,000, 9,043, 9,280, 9,295, 9,340, 9,342, 9,395, 9,415, 9,419, 9,421, 9,440, 9,590, 9,600, 9,611, 9,832, 9,901, 9,909 (negative).

Table 1
Average Prime Ratings for the Three Groups of Primes Among Participants from Rio Grande do Sul and Bahia

	Race			Facial expression				Pleasantness			
Region	White	Pardo	Black	White	Pardo	Black	*p*	White	Pardo	Black	*p*
RS	99%	83%	95%	4.52	4.61	4.34	.76	4.71	4.84	4.82	.90
BA	92%	80%	93%	4.56	4.75	4.40	.64	4.87	5.11	5.10	.63

Note. Ratings for the race columns reflect the percentage of times a prime image was placed into the labeled category; ratings for facial expression and pleasantness reflect average ratings on a 7-point scale; *p* values correspond to the difference between ratings as a function of race category.

five negative pictures.[2] The mean valence of the positive primes was 7.36 ($SD = .56$) and the mean arousal was 4.35 ($SD = .98$). Negative primes had a mean valence of 3.61 ($SD = .21$) and a mean arousal value of 5.42 ($SD = .68$). The pictures differed with regard to valence, $t(8) = 14.03$, $p < .001$, $d = 9.74$, but not with regard to arousal, $t(8) = -1.99$, $p = .37$, $d = -1.29$.

In this study, the EP consisted of two practice blocks, with 20 trials each, and four experimental blocks, with 50 trials each, for a total of 240 trials. Participants were told that two images would appear on the computer screen in sequence and that their task was to ignore the first one and to press the yellow button if the second image was positive or the green button if the second image was negative. The trials began with the presentation of the prime for 320 ms. The target was presented immediately after the prime (i.e., stimulus-onset asychrony of 320 ms) and remained on the screen until the participant offered a response or until a 1,500 ms timeout. There was a 1,000 ms interval between trials. During the practice blocks but not during test blocks participants received error feedback after each incorrect response. Throughout the task, timeout trials were followed by a "too slow" message so that participants knew they should respond faster. After each block participants received a summary with the percentages of correct answers and average block response time.

Implicit Association Test (IAT). The IAT is a RT task designed to measure the relative strength of implicit association between pairs of concepts. The idea behind the IAT is that responses to pairs of associated concepts made with the same response key will be faster than responses to pairs of concepts that are not associated. In this study, we used a Black versus White child-friendly IAT, in which participants had to pair pictures of Black and White children with positive and negative attributes. Thus, the faster someone pairs White with positive and Black with negative, the greater his or her implicit preference for Whites over Blacks (and vice versa).

The target stimuli were the same 20 pictures of children (10 Blacks and 10 Whites) with neutral facial expressions used in the EP task. The attribute stimuli were 20 IAPS pictures (Lang et al., 2008), 10 positive and 10 negative, randomly selected from the same set of targets used in the EP task. The child-friendly version of the IAT (Newheiser & Olson, 2012) is shorter than the traditional adult IAT, with 10 trials in each of the three practice blocks and 20 trials in the two critical ones. Also, instead of letters on a keyboard, the response keys were two large buttons, one yellow and one green. Because a single IAT can measure only one racial contrast and our assessment time with each child was limited, we were only able to employ a White–Black IAT, making this the only one of our measures that does not include an assessment of the category Pardo.

Explicit Measures

Group identification. This task measures visual racial identification. Participants saw two gender-matched children (girls saw only pictures of girls and boys only pictures of boys) from different races on the computer screen and had to choose which one looked more like them. Stimuli were 12 pictures of girls and 12 pictures of boys (four White, four Pardo, and four Black for each gender). The pictures were selected from the BIC-Multicolor (Sacco et al., 2016). Each combination White/Pardo, White/Black, and Black/Pardo was presented twice, for a total of six trials. The number of trials in which one racial group was chosen over another served as the dependent measure.

Explicit racial attitude. The explicit attitude task consisted of 15 trials in which participants had to indicate using a seven-point scale ranging from −3 to +3 how much they liked 15 children, five of each race, presented individually. The scale was presented with a frowny face under the −3 point, a neutral face under the zero and a smiley face under the +3. We later recoded this scale to range from 1 to 7. Mean ratings for each racial group served as the dependent measure.

Procedures

This study was approved by the Psychology Institute/Federal University of Rio Grande do Sul research ethics committee (study title: "O desenvolvimento de preconceito racial implícito em crianças de Porto Alegre e Salvador"; protocol 21,883/2011). In accordance with the Brazilian Research Ethics Board regulations, participants received no compensation for participating in the study. A trained research assistant administered the experiment to each participant individually in a quiet room at their school. Half of the research assistants was Black and the other half was White. The race of the research assistant had no influence on the results and therefore was not included on the analyses. All instructions were given verbally by the experimenter with the aid of presentation slides. To reduce the potential for data contamination, tasks followed an established order from most implicit to most explicit, namely: (a) EP, (b) IAT, (c) group identification, and (d) explicit racial attitude. The experiment lasted approximately 30 min and was run on 60 Hz notebook monitors with Inquisit 4 software.

[2] The set of standard prime stimuli included the following IAPS pictures (slide numbers): 1,610, 1,630, 5,825, 7,340, 7,508 (positive) and 1,111, 1,270, 1,280, 1,301, 1,930 (negative).

Results

We present results for each of the tests employed in the following sequence: EP task, IAT, group identification, explicit racial attitude. Degrees of freedom vary among the reported tests because the number of participants who completed each test differed (EP task: 506, Child Friendly IAT: 531, Group identification: 527, Explicit racial attitude: 531). Reasons for not completing the tests were mainly difficulty understanding the test, fatigue, and distraction (reduced attention span), and for the implicit measures, preestablished exclusion criteria (described below).

Implicit Measures

EP. From the 542 participants included in the sample, 506 completed the EP task. Among those who completed the task, 30 participants were excluded from the analyses due to a high number of errors (>20%), leaving a final sample of 476 participants in the EP task. Following previous studies that used the EP with children (Degner & Wentura, 2010), we removed individual trials with response latencies below 300 ms and those that were 1.5 interquartile ranges above the third quartile of the individual latency distribution (see Tukey, 1977). In total, 6.60% of all trials were excluded. The mean error rate was 8.25% (SD = 6.85%). Effects were computed on response latencies of correct trials only.

We calculated three priming differences—one for White versus Black primes, one for White versus Pardo primes, and one for Pardo versus Black primes—by subtracting the mean latency of the congruent trials from the mean latency of the incongruent ones. For the White versus Black priming effect, we identified congruence as White/positive and Black/negative prime-target pairs and incongruence as White/negative and Black/positive prime-target pairs. For the White versus Pardo priming effect, congruence was defined as White/positive and Pardo/negative prime-target pairs and incongruence as White/negative and Pardo/positive prime-target pairs. For the Pardo versus Black priming effect, we identified congruence as Pardo/positive and Black/negative prime-target pairs and incongruence as Pardo/negative and Black/positive prime-target pairs. With this scoring procedure, faster response latencies to congruent prime-target pairs as compared with incongruent ones would reveal a negative attitude toward Blacks as compared with Whites, Pardos as compared with Whites, and Blacks as compared with Pardos. The same calculation was carried out for the standard primes with congruence defined through positive/positive prime-target pairs and negative/negative prime-target pairs.

The standard priming effect deviated significantly from zero, M = 29 ms (SD = 46 ms), $t(475) = 13.76$, $p < .001$, $d = .63$ (note that testing the priming effects for a deviation from zero is equivalent to testing the Full Prime Valence × Target Valence interaction). This result indicates that participants responded faster in valence-congruent trials (i.e., prime and target pairs of the same valence) than in valence-incongruent ones (i.e., prime and target pairs of different valence), thus signaling that prime valence systematically influenced target evaluations. There was no effect of age, $F(3, 453) = 1.12$, $p = .34$, with children from all age ranges showing similar priming effects ($ts \geq 4.33$, $ps \leq .001$, $.50 \leq d \leq .79$). In addition, neither race, $F(2, 453) = 1.33$, $p = .26$, nor state, $F(1, 453) = 1.58$, $p = .21$, influenced the standard priming effect. This result validates our general priming procedure as one that can produce expected patterns with children in this age range and allows us to interpret null results with other prime categories as an absence of implicit bias.

For the prejudice priming effects, we found significant effects (for the deviation from zero) for the White versus Black (M = 5 ms, SD = 35 ms), $t(475) = 3.43$, $p < .01$, $d = .14$, and for the Pardo versus Black priming effect (M = 4 ms, SD = 35 ms), $t(475) = 2.26$, $p < .05$, $d = .11$. These results indicate that Whites and Pardos are implicitly preferred when compared to Blacks. The White versus Pardo priming effect did not reach significance (M = 2 ms, SD = 37 ms), $t(475) = 1.12$, $p = 26$, signaling no implicit preference for Whites over Pardos (Figure 1, top).

Contrary to our expectations, there was no influence of age on any of the prejudice priming effects (i.e., the Age × Prime Valence × Target Valence interaction, Fs ≤ 2.24, ps ≥ .08, $.008 \leq \eta_p^2 \leq .015$). The effect of participant race also failed to reach significance (i.e., the Race × Prime Valence × Target Valence interaction, Fs ≤ 1). There was, however, an effect of state on the Pardo versus Black priming effect (i.e., the State × Prime Valence × Target Valence interaction), $F(1, 453) = 3.92$, $p < .05$, $\eta_p^2 = .009$, with no effect in children from RS (M = 1 ms, SE = 2 ms) but a significant effect in children from BA (M = 11 ms, SE = 5 ms). For the White versus Black and the White versus Pardo priming effects, no effect of state was found (Fs ≤ 1.73, ps ≥ .19, $.001 \leq \eta_p^2 \leq .004$; Figure 1, bottom).

IAT. From the 542 participants included in the sample, 531 completed the IAT. Among those who completed the task, 153 participants were excluded from the analyses due to a high number of errors (≥20%). Hence, for the IAT, the final sample comprised 378 participants. A less stringent exclusion criterion (i.e., error rate >25%) led to the inclusion of 444 participants (i.e., 86% of those who completed the IAT) and to qualitatively similar results overall and by race. However, for the sake of coherence, we employ the same exclusion criterion for both the IAT and the EP task (i.e., error rate ≥20%). The IAT was scored according to the improved algorithm (Greenwald et al., 2003).

Overall, a significant IAT effect was found (M = .41, SD = .44), $t(377) = 18.39$, $p < .001$. We conducted one-sample t tests that compared mean IAT scores with zero. The three race groups showed a pro-White bias: White (M = .56, SD = .38), $t(146) = 17.58$, $p < .001$; Pardo (M = .39, SD = .43), $t(168) = 11.91$, $p < .001$; and Black children (M = .13, SD = .44), $t(61) = 2.37$, $p = .02$. The IAT score was submitted to a 2 (block order: compatible first vs. incompatible first) × 2 (state: BA vs. RS) × 3 (race: White vs. Pardo vs. Black) × 4 (participant's age: 6–7 vs. 8–9 vs. 10–11 vs. 12–14 years old) univariate analysis of variance (ANOVA). This analysis revealed a significant main effect of race $F(2, 348) = 22.77$, $p < .001$, $\eta_p^2 = .116$, such that White children showed a higher pro-White bias than both Pardo ($p = .001$) and Black children ($p < .001$). Pardos also showed a higher pro-White bias than Blacks ($p < .001$). No significant main effects of block order $F(1, 348) = 2.20$, ns, $\eta_p^2 = .006$, state $F(1, 348) = .03$, ns, $\eta_p^2 < .001$, or age $F(3, 348) = 1.13$, ns, $\eta_p^2 = .010$ were found.

There was, however, a significant interaction between race and state $F(2, 348) = 4.07$, $p = .02$, $\eta_p^2 = .023$, indicating the existence of a contextual influence on the implicit preference for Whites over Blacks when we consider participants' race. In BA, a state with a majority of Pardos and Blacks, there was a difference between races, $F(2, 81) = 11.04$, $p < .001$. Although Whites (M =

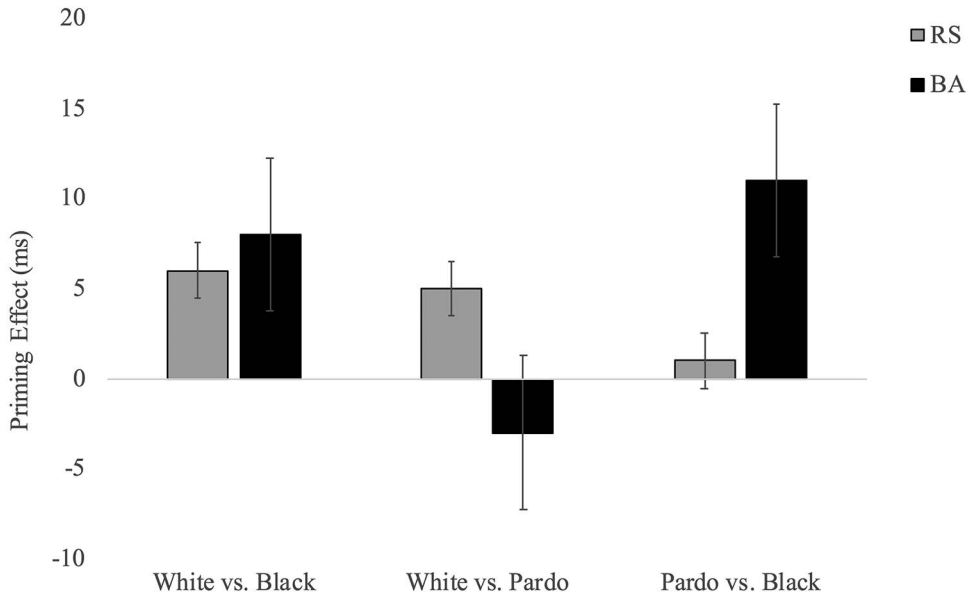

Figure 1. Upper panel: Priming effects according to the three priming differences, White versus Black primes, White versus Pardo primes, and Pardo versus Black primes. Lower panel: Effect of state on the prejudice priming effects.

.72, $SD = .38$) showed more pro-White bias than Pardos ($M = .33$, $SD = .45$), $p = .003$, and Blacks ($M = .06$, $SD = .41$), $p < .001$, the difference between Blacks and Pardos did not quite reach significance ($p = .084$). By contrast, in the majority-White RS there was a different effect of race, $F(2, 291) = 14.20$, $p < .001$. In this case, Whites ($M = .53$, $SD = .38$) and Pardos ($M = .42$, $SD = .42$) did not differ from each other ($p = .07$) but both showed higher pro-White bias than Blacks ($M = .16$, $SD = .45$), $p < .001$, and $p = .001$, respectively (see Figure 2).

Explicit Measures

Group identification. From the 542 participants included in the sample, 527 completed the group identification task. In this

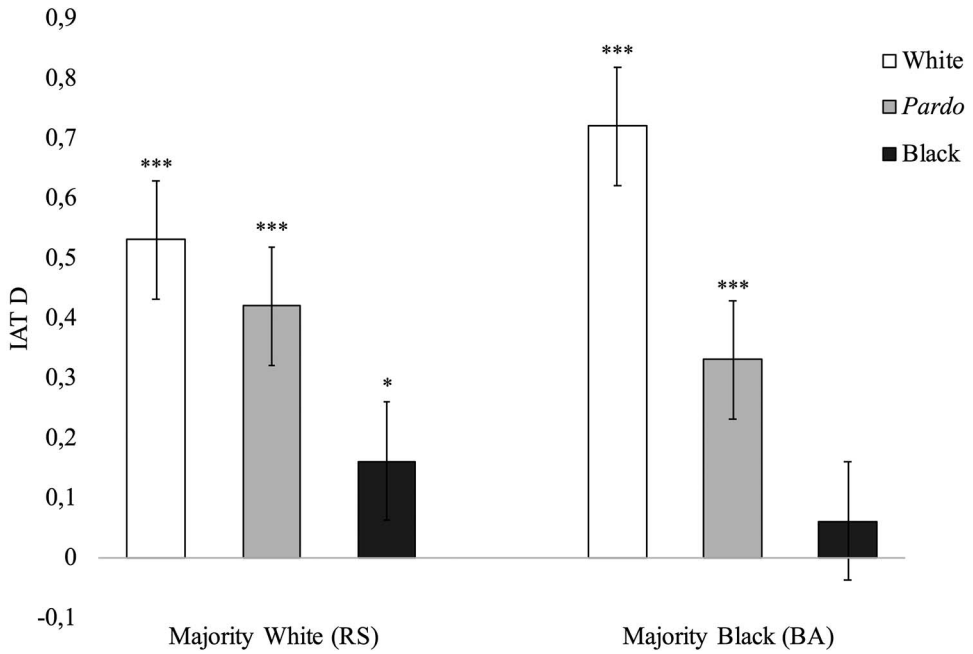

Figure 2. Implicit Association Test (IAT) scores according to race and state. Error bars denote +/− 1 *SE*. * $p < .05$. *** $p < .001$.

task, each combination of races was presented twice to participants (i.e., each participant completed 6 trials), so we created three contrasts: (a) identification with White as compared to Black, (b) identification with White as compared to Pardo, and (c) identification with Pardo as compared to Black. In each contrast, participants could show identification exclusively with lighter skin tones (either White or Pardo, when Pardo was contrasted with Black), with darker skin tones (either Black or Pardo, when Pardo was contrasted with White) or could show a mixed pattern, identifying with one race in each trial. For each of the three contrasts, identification with lighter skin tones was coded as 1 whereas identification with darker skin tones was coded as 0. Because each contrast included two trials, for each contrast a complete identification with lighter skin tones equaled to a two point score of 100%; a complete identification with darker skin tones equaled to a zero point score of 0%; and a mixed pattern of identification equaled to a one point score of 50%. In Figure 3, we present mean identification rates for each contrast per participant race and state. Table 2 provides mean identification rates subdivided by participant race, participant state, and the race contrast in question.

The three identification contrasts (as percentages) were then each submitted to a 2 (state: BA vs. RS) ANOVA 3 (race: White vs. Pardo vs. Black) ANOVA 4 (age: 6–7, 8–9, 10–11, 12–14 years old) univariate ANOVA. There was a significant main effect of race in all three identification contrasts: White–Black, $F(2, 504) = 45.91$, $p < .001$, $\eta_p^2 = .154$; White–Pardo, $F(2, 503) = 17.00$, $p < .001$, $\eta_p^2 = .063$; and Pardo–Black, $F(2, 504) = 29.77$, $p < .001$, $\eta_p^2 = .106$. White children and adolescents identified themselves more frequently with lighter skin tones than both Pardo and Black children and adolescents did. There was a significant main effect of state in the White–Black, $F(1, 504) = 17.69$, $p < .001$, $\eta_p^2 = .034$, and in the White–Pardo, $F(1, 503) = 21.65$, $p < .001$, $\eta_p^2 = .041$ contrasts. In both of them, participants from BA ($M = 70.93\%$, $SE = 3.23\%$ and $M = 60.58\%$, $SE = 3.58\%$, respectively) more frequently identified themselves with Whites than participants from RS ($M = 53.68\%$, $SE = 1.94\%$ and $M = 37.88\%$, $SE = 2.15\%$, respectively). There was no main effect of age in any of the contrasts and we only found an interaction between age and race on the Pardo–Black contrast $F(6, 504) = 3.38$, $p = .003$, $\eta_p^2 = .039$, indicating that older Black children and adolescents tended to identify themselves more strongly with Pardos. Finally, the analysis revealed a significant interaction between race and state in all three contrasts: White—Black, $F(2, 504) = 13.51$, $p < .001$, $\eta\rho 2 = .051$; White–Pardo, $F(2, 503) = 12.02$, $p < .001$, $\eta_p^2 = .046$; and Pardo–Black, $F(2, 521) = 14.64$, $p < .001$, $\eta_p^2 = .053$. The three-way interaction State × Race × Age was not significant $F(5, 504) = .608$, $p = .694$, $\eta_p^2 = .006$.

In short, participants from RS generally identified themselves with their own group. In BA, however, participants from all three groups, including Blacks, identified themselves with lighter skin tones (see Table 2 and Figure 2 for details). Importantly, considering that participants performed well in the pretest categorization task, it is unlikely that their performance was a function of being unable to categorize by race.

Explicit racial attitude. From the 542 participants included in the sample, 531 completed the explicit racial attitude task. As the participants evaluated five children of each race in this task (i.e., 15 trials), we computed the means for White, Pardo, and Black targets separately. Overall, the mean evaluation was 5.42 ($SD = 1.08$) for White targets, 4.82 ($SD = 1.12$) for Pardo targets, and 4.59 ($SD = 1.31$) for Black targets, with all ratings lying on the positive side of the scale (i.e., greater than the scale midpoint, in this case, $ps \leq .001$ and $ds \geq 5.02$). We submitted these means to a mixed repeated measures analysis of variance with age (6–7 × 8–9 × 10–11 × 12–14), participants' race (White, Pardo, Black), and state (BA, RS) as between-subjects factors (see Table 3 for a complete description of results). Results showed an effect of target race, $F(1.92, 973.71) = 68.47$, $p < .001$, $\eta_p^2 = 0.119$. Orthogonal Helmert constrasts showed a significant difference between the mean evaluation of Whites versus the remaining mean evaluations

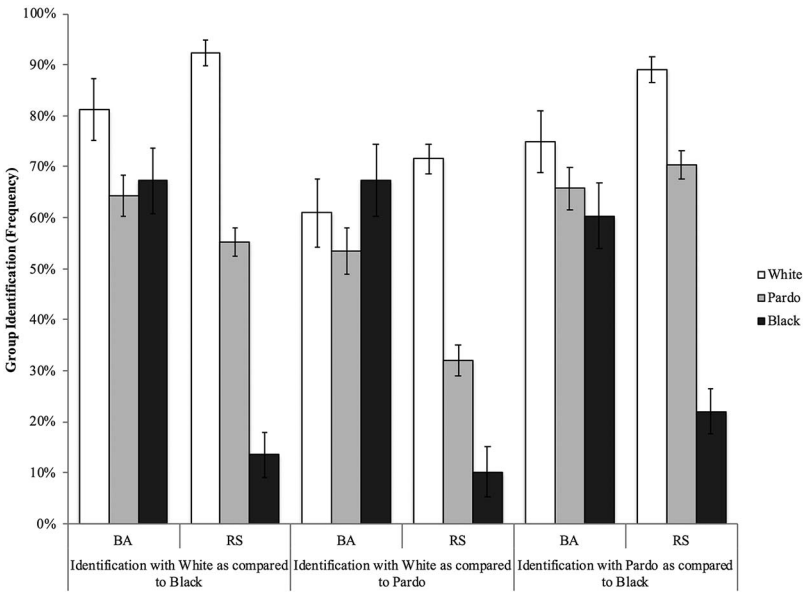

Figure 3. Results of the group identification task by race and state. Error bars denote +/− 1 *SE*.

Table 2
Mean Identification Rate (%, SE) Subdivided by State, Race Contrast, and Participant Race (Values Are Rounded)

	Rio Grande do Sul			Bahia		
Race	White–Black	White–Pardo	Pardo–Black	White–Black	White–Pardo	Pardo–Black
White	92 (2.55)	72 (2.82)	89 (2.56)	81 (6.05)	61 (6.72)	75 (6.09)
Pardo	55 (2.75)	32 (3.05)	70 (2.77)	64 (4.09)	54 (4.54)	66 (4.12)
Black	14 (4.46)	10 (4.95)	22 (4.49)	67 (6.36)	67 (7.06)	60 (6.40)

of Pardos and Blacks, $F(1, 508) = 105.49$, $p < .001$, $\eta_p^2 = .172$. The other contrast (i.e., the mean evaluation of Pardos vs. Blacks) was significant as well, $F(1, 508) = 12.20$, $p < .01$, $\eta_p^2 = .023$, thus lighter skin was more positively evaluated when contrasted with darker skin tones. The two-way interaction between target race and age was not significant, $F(5.75, 973.71) = 1.26$, $p = .27$. The other two-way interactions target race and participant race, $F(3.83, 973.71) = 6.05$, $p < .001$, $\eta_p^2 = .023$, and target race and state, $F(1.92, 973.71) = 5.81$, $p < .01$, $\eta_p^2 = .011$, were significant. Importantly, the three-way interaction Target Race × Participant Race × State was also significant, $F(3.83, 973.71) = 2.72$, $p = .03$, $\eta_p^2 = .011$.

These interactions were significant with regard to the contrast between the mean evaluation of Whites versus the remaining mean evaluation of *Pardos* and Blacks, for the interaction with race, $F(2, 508) = 9.75$, $p < .001$, $\eta_p^2 = .037$, and for the interaction with state, $F(1, 508) = 8.17$, $p < .01$, $\eta_p^2 = .016$. To explore them, we subtracted the mean of the evaluation of *Pardos* and Blacks from the mean evaluation of Whites, thus producing an explicit index of preference for Whites over other racial groups.

With regard to the race effect, the explicit race bias was significantly greater than zero in the three race groups, $ts \geq 3.33$, $ps \leq .01$, $.35 \leq ds \leq .81$. There was however a significant difference between race groups, $F(2, 528) = 6.52$, $p < .01$. Explicit race bias was smaller among Black ($M = .36$, $SD = 1.02$) than among White ($M = .85$, $SD = 1.05$), $p < .01$, and Pardo children and adolescents ($M = .71$, $SD = 1.11$), $p < .05$, with White and Pardo participants showing a similar pattern of preferences, $p = .54$.

With regard to the state effect, explicit race bias was significantly above zero in the two states, $ts \geq 8.43$, $ps \leq .001$, $.63 \leq ds \leq .72$. However, the explicit race bias was larger in BA ($M = .88$, $SD = 1.21$) than in RS ($M = .65$, $SD = 1.03$), $t(529) = 2.17$, $p = .03$, $d = .20$.

The three-way interaction Target Race × Participant Race × State was significant, $F(3.83, 973.71) = 2.72$, $p = .03$, $\eta_p^2 = .011$. Again, the interaction was significant with regard to the contrast between the mean evaluation of Whites versus the remaining mean evaluation of Pardos and Blacks, $F(2, 508) = 3.94$, $p < .05$, $\eta_p^2 = .015$. White, Pardo, and Black participants from BA and RS showed explicit race biases greater than zero, $ts \geq 2.11$, $ps \leq .04$, $.28 \leq ds \leq 1.22$. The pattern of differentiation among race groups was different within states though. In BA, Pardo ($M = .74$, $SD = 1.19$) and Black participants ($M = .49$, $SD = .90$) showed explicit race biases of the same magnitude, $p = .57$. White participants ($M = 1.54$, $SD = 1.26$) showed a greater explicit race bias than Pardo, $p = .003$, and Black participants, $p = .001$. In RS, White ($M = .72$, $SD = .96$) and Pardo participants ($M = .70$, $SD = 1.07$) showed explicit race biases of the same magnitude, $p = .98$. Black participants ($M = .30$, $SD = 1.08$) showed a smaller explicit race bias than Pardo, $p = .03$, and White children, $p = .02$.

The other three-way interactions (Target Race × Age × Race, and Target Race × Age × State) and the four-way interaction (Target Race × Age × Participant Race × State) were not significant, $Fs \leq 1.54$, $ps \geq .16$.

Relation between explicit and implicit measures. Multiple regression analysis was conducted to examine the relationship between implicit preference for Whites (over Blacks) as measured by the IAT and explicit preference for Whites (over Blacks). To parallel results from the IAT, we created a relative explicit preference score by subtracting the mean of White preference from the mean of Black preference such that positive numbers indicated an explicit preference for White over Black.

We thus regressed explicit preference on mean-centered IAT scores, age, and their two-way interaction. This analysis revealed that the effect of the IAT score on the explicit preference for Whites depends on age (see Table 4); Figure 4 presents the relationship between the IAT score and the explicit preference for Whites at high (+1 *SD* from mean) and low (−1 *SD* from mean) age values. Among younger children, the IAT score predicts explicit preference for Whites, standardized $B = .33$, $t = .4.93$, $p < .001$. This relationship is no longer present among older children, standardized $B = .05$, $t = .75$, *ns.*

We also examined whether the relationship between implicit preference as measured by EP and explicit preference also depends

Table 3
Explicit Mean Evaluation (SE) Subdivided by State, Target Race (White, Black, and Pardo), and Participant Race

	Rio Grande do Sul			Bahia		
Race	White targets	Pardo targets	Black targets	White targets	Pardo targets	Black targets
White	5.42 (.08)	4.85 (.08)	4.55 (.09)	5.46 (.19)	4.14 (.19)	3.69 (.22)
Pardo	5.41 (.09)	4.79 (.09)	4.64 (.10)	5.43 (.13)	4.80 (.13)	4.57 (.15)
Black	5.26 (.14)	4.94 (.14)	4.97 (.17)	5.61 (.20)	5.33 (.20)	4.93 (.23)

Note. The scale ranged from 1 (*I do not like the child at all*) to 7 (*I like the child very much*).

Table 4
Multiple Regression Analysis Predicting Explicit Preference for Whites from Implicit Association Test (IAT) Score, Age, and Their Interaction

Variables	Standardized B	*t*
Constant		11.48***
IAT score	.19	3.96***
Age	−.24	−5.03***
IAT Score × Age	−.14	−2.80**

** $p < .01$. *** $p < .001$.

on age. To do so we ran three multiple regressions with the following dependent variables: (a) implicit preference for Whites (over Blacks) and explicit preference for Whites (over Blacks), (b) implicit preference for Whites (over Pardos) and explicit preference for Whites (over Pardos), and (c) implicit preference for Pardos (over Blacks) and explicit preference for Pardos (over Blacks). These analyses suggested that the effects of EP on the explicit preference scores do not depend on age; age always predicted explicit preference, such that the older the child, the weaker the explicit preference (standardized Bs $\geq -.12$, ts ≥ -2.60, ps $< .01$). Unexpectedly, EP in the White versus Black comparison predicted explicit preference for White (over Black), such that the greater the implicit preference, the smaller the explicit one (standardized B $= -.10$, $t = -2.20$, $p < .05$). None of the EP × Age interactions, and no effects in the models with other dependent measures, reached significance ($-.05 \leq$ standardized Bs $\leq .04$, and $-1.12 \leq t$s $\leq .04$).

Discussion

We first briefly review our results in terms of the specific hypotheses we advanced and then turn to a more general discussion. First, because lighter skin tones imply higher-status, we predicted that we would observe stronger own-race preferences in White as compared to Pardo participants and in Pardo as compared to Black participants. This hypothesis was generally supported for both implicit and explicit measures, though there was regional variability, which we discuss in more detail below. We also predicted an age-related decline in explicit race preferences, and age-related stability in implicit race attitudes as measured with the IAT. Interestingly, although the latter prediction was supported, we did not in fact observe an age-related decline in explicit race preferences. This is surprising given the meta-analytic conclusion that a decline in race bias is common across these age ranges (Raabe & Beelmann, 2011). However, it is important to note that the evidentiary base upon which this conclusion rests is largely North American and European. Our findings thus underscore the value of increasing the cultural diversity of our samples; in the present case, it further suggests that this pattern of developmental decline, which has featured prominently in some theoretical perspectives (e.g., Aboud, 2003) should not be assumed outside those contexts.

We also predicted that we would observe age-related increase in bias on EP, as prejudice automatization develops. Instead, both Pardos and Whites were implicitly preferred when compared to Blacks, and these effects appeared stable with age. Why are our results at odds with past work, which found an age-related increase in implicit bias favoring the dominant social groups (Degner & Wentura, 2010)? The most plausible possibility for our divergence from past findings is that race categories are more salient in Brazil than ethnic categories are in Germany, leading to a considerably earlier emergence of priming effects and necessitating observation of even younger children if an age-related increase was to be captured. Still, we recommend further work in this area, especially because even our child friendly EP task was demanding for young

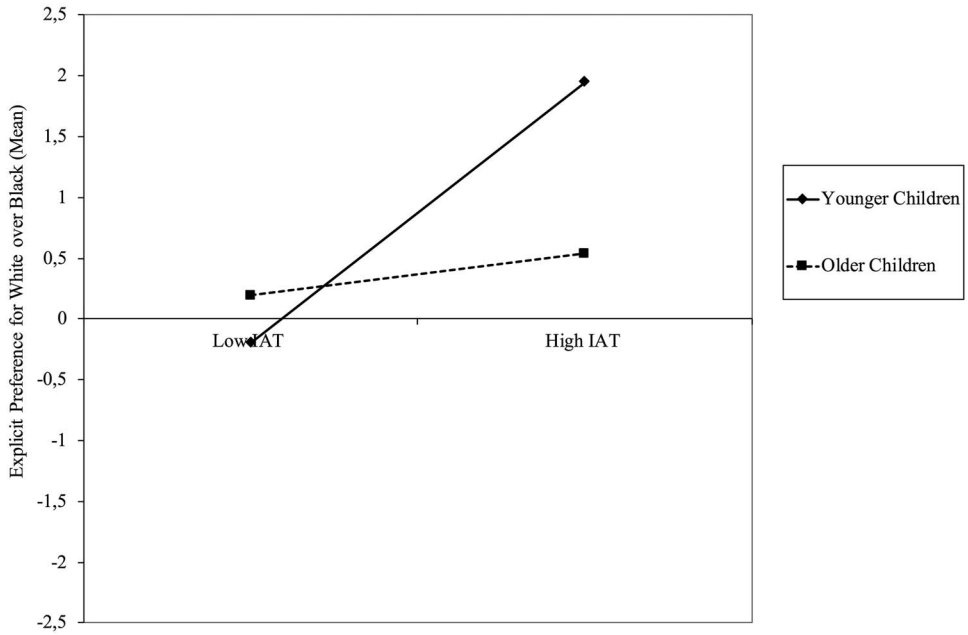

Figure 4. Interaction between the explicit preference for Whites (over Blacks) and the Implicit Association Test (IAT) scores in younger and older children.

children. Further work might benefit from exploring other exemplar-based measures of prejudice to confirm these findings (such as the affect misattribution procedure; Dunham & Emory, 2014). Nonetheless, our results suggest that the age of automatization of prejudice, at least as indexed by EP, is itself quite culturally variable. Finally, we expected to see stronger race-based preferences in children and adolescents in the less diverse region of RS. Results here were actually somewhat complex and depended on the specific measures we examined, and thus we integrate attention to these findings into the rest of our discussion.

Turning to a more general discussion and supporting the role of implicit and explicit cultural attributions described in DIT (Bigler & Liben, 2006), our results reveal the pervasive presence of race biases favoring higher status groups. Across our measures, Whites were generally evaluated more positively than *Pardos*, who were generally evaluated more positively than Blacks. But one novel aspect of our contribution is the investigation of regional differences between children and adolescents growing up in BA and RS. Albeit part of the same country, these two regions could hardly be more different from each other in terms of racial demographics and experience with racial diversity, and these contextual disparities were visible in several of the patterns we observed.

Although several differences appeared in racial attitudes across these regions, perhaps most striking were the differences on the explicit group identification task. Whereas participants from RS generally identified themselves with their own group, clearly indicating the existence of three racial groups, those from BA identified themselves with lighter skin tones, particularly with Whites, independent of whether they were White, Pardo or Black. In their seminal work, Clark and Clark (1947) found that, in spite of preferring White dolls, Black children still generally (though not always) identified themselves more with Blacks than with Whites; in BA, Black children and adolescents generally identified with Whites. These initially surprising results begin to make sense when placed in the broader Brazilian context. There is a common belief in Brazil that people from the South are more prejudiced than those from the North because of the higher number of Whites who live there. However, higher levels of diversity do not necessarily imply lower levels of prejudice. The majority of the population having darker skin in BA makes the social and economic differences more pronounced there. Although there are more Blacks and Pardos in BA, and a general valorization of African heritage, Whites in the state do have higher social and economic status. Our results suggest that this reality is apparent even to children as young as six who, despite being Black, identify themselves with Whites more than Black children in a region with less racial diversity.

Adopting a developmental approach, the fact that older Black children and adolescents tended to identify themselves more strongly with Pardos may suggest that there is an increased awareness of the meaning and consequences of racial identity over time. Adolescence is a distinct and interesting developmental period, but there are few intergroup social cognition studies that focus on this age despite the clear changes in for example, ethnic identity development that occur during this period (e.g., Phinney, 1989).

It is also important to stress that race categorization was a self-report measure in this study. As we discussed in the introduction, the issue of race classification in Brazil is complicated. Because we were interested in how children and adolescents conceive of their social world, we elected to use children's self-categorizations by race to determine which group they would be included in for the purposes of this study. So many of the Bahian Pardo and Black participants who identified with Whites were nonetheless aware of their own race, in that they self-categorized in a different manner. This process may have important implications on the development of these children's and adolescents' identity and self-esteem, and this is an interesting question for future work. One intriguing possibility is that the greater flexibility in racial classification in Brazil (e.g., Chen et al., 2018) supports this pattern of identification, and that it would not occur in countries the United States or South Africa where racial categories appear to be more rigid. Testing this hypothesis would require further data.

The two regions also differ in terms of their explicit racial attitudes, with participants from BA generally expressing stronger preferences for White over Pardo over Black. This was contrary to our prediction, derived from contact theory, that the greater diversity of BA would lead to more positive attitudes toward Pardo and Black individuals. Further, it is in some tension with DIT, which predicts that the salience of non-White racial categories would be greater when they represent a smaller fraction of the population (Bigler & Liben, 2006). However, as just discussed, the mere presence of diversity is compatible with a wide range of cultural forms, including one in which the status differences between groups are more salient and more deeply internalized. We suspect this may underlie the greater degree of explicit prejudice in BA, and it represents a stark reminder that the positive value of contact comes when that contact embodies certain principles, such as equal status and common goals (Hewstone & Swart, 2011). If this is right, it suggests that basic and applied researchers need to devote more attention to understanding the specific nature of the interracial contact that characterizes early and middle childhood.

The IAT has now been used extensively with children (e.g., Baron & Banaji, 2006; Degner & Wentura, 2010; Dunham et al., 2014; Newheiser & Olson, 2012) and our results confirmed previous findings (Dunham et al., 2006, 2007, 2008) regarding the age-related stability of implicit category-based racial attitudes throughout time. Further, all three racial groups presented pro-White bias, confirming that the tendency to prefer the ingroup can be reversed by preference for high status when status disparities are strong enough (as shown by Newheiser et al., 2014). This result is in line with system justification theory, in which individuals implicitly prefer the outgroup as a way to legitimize and perpetuate the status quo (Jost & Banaji, 1994; Jost, Banaji, & Nosek, 2004).

Interestingly, there was a contextual difference involving Pardo participants on the IAT. In both states, Pardos did not pattern as a third independent group (as has been observed with mixed-race children in South Africa; Dunham et al., 2014; Newheiser et al., 2014) but rather showed attitudes strikingly similar to one of the two other racial groups. We expected that, being an intermediate status group, they would present implicit attitudes similar to Whites, so as to differentiate themselves from Blacks (see Dunham et al., 2014). This pattern only happened in RS though, where *Pardos*' IAT scores did not differ from those of Whites. In BA *Pardos* presented the same pro-White bias as did Blacks. This implies that the social landscape was importantly different for children and adolescents in each of these regions, with participants in RS aligning themselves with higher-status Whites and participants in BA aligning themselves with lower-status Blacks. The

reasons for this difference are worthy of future investigation, but at the very least they underscore the need to consider prejudice development as situated within a specific cultural milieu.

Another important finding of this study was that in younger but not older participants implicit racial preference as measured by the IAT predicted explicit preference for Whites. One reason this could occur is that younger children may more freely express prejudice, bringing explicit and implicit attitudes into alignment (Hailey & Olson, 2013; Raabe & Beelmann, 2011). Because prejudice as measured with the IAT is generally stable across the life span, as explicit attitudes shift to reflect social demands, implicit and explicit bias would diverge (Baron & Banaji, 2006; Dunham et al., 2006, 2007; Dunham et al., 2013; Newheiser & Olson, 2012; Rutland et al., 2005). Despite this conceptual argument, to the best of our knowledge this is the only study to actually find that explicit and implicit attitudes are more closely related in younger children. This could be due to the explicit measures used; for example, Newheiser and colleagues (2014) considered the results of a single-item scale in which participants indicated how much they liked Whites and Blacks and found that the results of this explicit measure were not associated with IAT scores. Other researchers (e.g., Dunham et al., 2006, 2007) used a series of forced choice judgments. By contrast, our scores were based on five independent continuous scale ratings for each racial group, which could be a more reliable measure of explicit attitudes than has previously been compared to implicit attitudes. If following studies confirm our finding of a stronger relationship in younger children, this would be an important contribution to the study of the relationship between explicit and implicit racial attitudes.

Like any study of this nature, our project has some limitations that should be acknowledged. First, despite our best efforts, we ended with a sample that was not fully balanced across state and race group (in particular, our sample of Black children and adolescents was smaller than would have been ideal). Second, our study was correlational, and so all reports of age-related change need to be interpreted cautiously. Third, despite our inclusion of a range of measures, it would have been desirable to include other measures of social functioning such as self-esteem. Nonetheless, we believe the large number of measures and our large overall sample size represent a significant contribution in spite of these shortcomings.

In conclusion, the present study was a comprehensive research effort that involved two contexts, three races and four measures, two explicit and two implicit. To the extent of our knowledge, no past investigation has looked so closely at within country variation in race attitudes, and our results show that they can be just as pronounced as between-country and between-race differences. Further, although implicit category-based racial prejudice was only partially affected by contextual differences, the same cannot be said about group identification, which varied dramatically across cultural contexts. The nature of the relationship between implicit and explicit attitudes on the one hand and group identification on the other therefore emerges as an important question for future research, perhaps especially focused on BA, the more diverse context.

The divergence of racial preference across development may have a significant impact on psychosocial trajectories for youth and connections can be made to the adult literature on the psychological effects of social stigma (Major & O'Brien, 2005). This is an interesting and important topic for future work. Thinking in terms of applied psychology, our findings can be used to plan interventions that focus on the identity and self-image of children and adolescents that belong to racial and ethnic minorities. The results suggest that this kind of intervention may be especially relevant in racially diverse contexts, in which the effects of prejudice and discrimination are more pronounced and thus may have a greater impact on the development of children and adolescents. This in in line with the social–cognitive developmental approach adopted on this article but could also be fruitfully integrated with work on racial identity development, which becomes increasingly important in adolescence (e.g., Phinney, 1989), as well as work in the contact hypothesis tradition (Hewstone & Swart, 2011). We believe the integration of different psychological perspectives is not only important but essential for the study of race attitudes and we hope to have contributed for the understanding on the emerging dynamics of racial prejudice.

More broadly, we hope our investigation will spur more research on the specific contexts within which intergroup social cognition emerges and develops. These contexts are as varied as the world can be, but our science all too often seems to reflect only a small part of this diversity and, in particular, western, educated, industrial, rich, and democratic settings.

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