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Parents' valuing diversity and White children's prosociality toward White and Black peers

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ABSTRACT

Although scholars are increasingly building empirical evidence that helps us understand racism, they have conducted surprisingly little research on White children's prosocial behavior toward historically marginalized people. 190 White, non-Hispanic children ($M = 7.09$ years, 54.2% boys) participated in the study. We examined whether both parents' reported values for racial diversity in their children's friendships and parents' and teachers' reports of children's cross-race friendships were related to children's sharing behaviors toward Black or White peers. We found that parents' valuing of diversity was positively related to older, but not younger, children's sharing behavior toward Black peers but not White peers. Further, for children of all age, parental diversity values were positively related to teachers' and parents' report of children's cross-race friendships. Our findings indicate that interventions to improve White children's positive behavior toward Black peers should include a focus on contexts that promote equity (i.e., parents' values and friendships).

According to the [United States Census Bureau \(2020\)](#), the U.S. is now a minority-majority country for youths under age 15, creating multiple contexts where children with diverse ethnic/racial backgrounds may interact with each other ([Hughes et al., 2006](#)). There is evidence that White, non-Hispanic children (hereafter referred to as White) exhibit prejudice toward historically marginalized ethnic racial group members by preschool age ([de França & Monteiro, 2013](#); [Dunham, Baron, & Banaji, 2008](#); [Renno & Shutts, 2015](#); [Van Ausdale & Feagin, 1996](#)), and they engage in group-based discrimination and exclusion by seven years of age ([Rutland, Cameron, Bennett, & Ferrell, 2005](#); [Rutland & Killen, 2015](#)). Researchers have investigated these negative aspects of racial prejudice with particular attention to how children from historically marginalized groups experience such biases (e.g., [Priest et al., 2013](#), a systematic review). However, racial disparities in positive behaviors, such as prosocial behavior (i.e., voluntary actions intended to benefit others such as helping and sharing; [Eisenberg, Spinrad, & Knafo-Noam, 2015](#)), with a focus on the perpetrators of these disparities, have been underexamined. This research agenda is critical because although blatant aggression or discrimination toward marginalized individuals is

viewed as socially unacceptable, there is less pressure for individuals to engage in positive and/or prosocial behavior toward racial outgroup peers. Individuals are more likely to show disparities in positive behavior compared to negative actions ([Mummendey & Otten, 1998](#)). Thus, examining potential predictors of young White children's developmentally appropriate prosocial behavior, such as sharing, toward marginalized ethnic-racial groups is timely and needed. In this study, the primary goal was to examine how White parents' beliefs about diversity, as well as children's cross-race friendships, predict children's sharing behaviors with White and Black children. Such understanding has the potential to contribute to White children's bias reduction, ultimately increasing equity and reducing harm toward children from historically marginalized racial groups.

Are children biased in prosocial behavior?

Although researchers generally have treated prosocial behavior as a global construct, they have become increasingly attentive to different aspects of prosociality such as distinct types ([Carlo, Hausmann,](#)

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Christiansen, & Randall, 2003; Xiao, Spinrad, & Eisenberg, 2019) and those directed toward various targets (Carlo & Padilla-Walker, 2020; Padilla-Walker & Christensen, 2011). Children are not prosocial indiscriminately. When recipients of prosocial behavior were considered, researchers have shown that 4- and 5-year-olds were more likely to share their own resources with friends compared to non-friends, acquaintances, or strangers (Buhrmester, Goldfarb, & Cantrell, 1992; Moore, 2009; Paulus & Moore, 2014). When examining racial characteristics of the target of children's prosocial behavior, researchers have demonstrated that 3- to 5-year-olds (majority White children) distributed more resources to White than Black children (Renno & Shutts, 2015), and White toddlers were more likely to instrumentally help a White experimenter than a Black one (Laible et al., 2021). In another study that did not include children's own prosocial tendencies, Weller and Lagattuta (2013) found that 5- to 13-year-olds judged that characters were more obligated to help racial ingroup than outgroup members.

In the present study, we focused on two related but separate aspects of White children's prosociality toward White and Black peers: disparities in prosocial behavior and the level of prosocial behavior toward different recipients. We defined disparities in children's race-related prosocial behavior as their relative tendency to act prosocially toward same-race targets versus different-race targets, and we specifically assessed White children's prosocial tendencies toward other White children versus Black children. We believe that disparities in children's prosocial behavior likely reflect their biases toward racial ingroup targets versus racial outgroup targets, irrespective of how prosocial they are. However, the (mean) level of prosocial behavior is a different matter: It refers to how prosocial a child is to a specific target such as White children, and these levels could be high and low. Although it is likely, as researchers have shown (e.g., Renno & Shutts, 2015), that many (White) children favor their racial ingroup members over outgroup members, some children are likely more prosocial, empathic, and generous than others. Thus, not only is it important to mitigate racial disparities in White children's prosociality, there also is a need to foster White children's prosocial behavior toward racial outgroup members, such as Black children. Building on existent studies, we sought to examine predictors of White children's prosocial disparities as well as the level of their prosocial behavior toward Black and White children.

Parents' values about the racial diversity of children's friendships, children's cross-race friendships, and White children's race-based prosocial behavior

Gender and race are important social groups (Garcia Coll et al., 1996). The extent to which children use categories to make judgments and act in prejudiced or inclusive ways is likely related to parental beliefs, values, and practices (Aboud & Amato, 2002; Rhodes & Chalik, 2013). This idea is consistent with Allport's (1954) model of prejudice socialization: Children acquire prejudice through various processes such as direct interpersonal learning.

Although parental values and beliefs are major factors that motivate parenting practices (Plaut, 2010; Rogoff, 2002), how White parents transmit their values and beliefs about race and ethnicity has received relatively little research attention (e.g., Hagerman, 2014; Hughes et al., 2006; Perry, Skinner-Dorkenoo, Abaied, Waters, & Osnaya, 2021; Scott, Shutts, & Devine, 2020; Wang et al., 2020). In the few studies in which researchers focused on White parents' socialization of race with children, a relatively small percent of White parents explicitly discussed race and race-related events with their children (e.g., Abaied & Perry, 2021; Pahlke, Bigler, & Suizzo, 2012; Underhill, 2018; Vittrup, 2018; Zucker & Patterson, 2018). As such, White parents might mainly transmit their values about race toward historically marginalized groups indirectly or implicitly to their children.

Here, we focused on one important aspect of parental values, namely, White parents' values about the racial diversity of their children's friendships. In the U.S., structural systems have allowed White

parents more choices in schools, neighborhoods, and social groups than for people from historically marginalized groups (Feagin, 1999). Thus, it stands to reason that these structures allow White parents some control over their children's friendships. As prior research indicates, White parents' valuing of the racial diversity of their children's friendships might be associated with parents' choices of schools, after-school programs, playdates, neighborhoods, events, and media for their children (Hagerman, 2014; Underhill, 2019). In such cases, children likely notice their parents' attitudes (e.g., encouraging interactions with ethnic/racial others) and thus directly adopt their parents' values. Consequently, it is likely that parents' values about their children's social context, particularly children's friendships, is related to children's own attitudes and race-based behaviors.

We speculated that parents' values about the racial diversity of children's friendships also likely reflect their general racial attitudes; thus, it is likely that parents communicate these attitudes with their children through the opportunities to engage with diverse others. In support of this argument, in a meta-analysis of 131 studies, Dalege and Degner (2013) found that parents' intergroup attitudes, including their evaluations, beliefs, and direct behaviors, were consistently, moderately, and positively related to their children's intergroup attitudes throughout childhood and adolescence. Given that parents likely transmit intergroup attitudes to their children, it stands to reason that parents' values about racial diversity in their children's friendships are likely directly related to their children's racial attitudes and behaviors, such as being less racially biased or engaging in more prosocial behavior toward racial outgroup members.

In addition to the direct transmission of racial attitudes and biases, parental values about racial diversity in their children's friendships might also be positively related to children's actual friendships with ethnically or racially diverse peers. Especially during childhood, parents who value racial diversity might be more likely to encourage, or actively create opportunities for children to interact with and form friendships with children from different ethnic racial groups compared to parents who do not value racial diversity (Way, Greene, & Pandey, 2007). Having cross-race friends, in turn, is likely positively related to White children's prosocial behavior toward peers from other ethnic racial backgrounds (perhaps through increased empathy and other mechanisms; Pettigrew & Tropp, 2008) according to another component of Allport's (1954) model of prejudice socialization: intergroup contact. Specifically, Allport theorized that contact with outgroup members should lead to reduced prejudice toward outgroup members. Allport also indicated that intergroup contact that occurs between groups with equal status, common goals, cooperation, and the support of authorities would have optimal effect of reducing prejudice. Even though these conditions are not necessary for intergroup contact to lead to reduced prejudice (Pettigrew & Tropp, 2008), friendships generally meet these conditions (Pettigrew, 1997).

There is a well-established body of research supporting the intergroup contact hypothesis, even with children (e.g., Davies, Tropp, Aron, Pettigrew, & Wright, 2011; Huguley, Wang, Vasquez, & Guo, 2019). Thus, if parents encourage their children to have diverse friends, in turn, children likely develop more cross-race friendships, and children probably hold fewer group-based prejudices and behave in more prosocial and less disparate ways toward marginalized peers (Allport, 1954; Davies et al., 2011). The hypothesized processes among parental diversity values, children's cross-race friendships, and children's race-based prosocial outcomes are presented in Fig. 1.

Developmental considerations: the moderating role of child age

According to the Social Identity Development Theory (SIDT; Nesdale, 2004), children's racial bias and attitudes are thought to crystallize around age seven. That is, around age seven, children are more likely to hold and express bias against outgroup members than earlier in development. At the same time, as children begin formal schooling, their

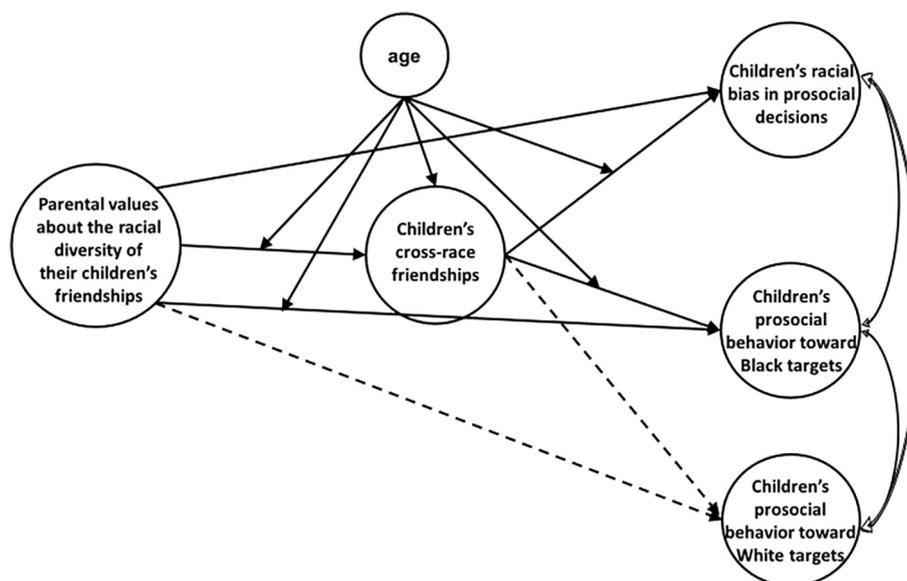


Fig. 1. The hypothesized conceptual model.

Notes. Solid lines indicate relations we hypothesized. Dashed lines indicate relations we did not expect to find.

racial socialization experiences likely expand greatly as their social worlds expand substantially through time spent with peers, teachers, and even more time watching television (Chassiakos, Radesky, Christakis, Moreno, & Cross, 2016; Eccles, 1999). As such, the early school period is an important developmental period for children to develop and crystalize their racial attitudes (Nesdale, 2004; Raabe & Beelmann, 2011).

In addition, during this time, children's cognitive abilities continue to mature and allow for more complex forms of meaning-making of race-based experiences (Williams et al., 2020). Thus, parents' values may be less strongly related to social outcomes among older than younger children. That is, younger children's race-based friendships and behaviors may be more strongly predicted by parental values and messages than is true for older school-aged children because older children are likely to be exposed to additional messages about race from non-parental contacts (La Paro, Rimm-Kaufman, & Pianta, 2006). In support of this possibility, in a recent study using the current sample, researchers showed that parents' implicit racial favoritism toward White people was related to younger, but not older, children's greater sympathy toward White peers compared to Black peers (Wang et al., 2020). Alternatively, it is possible that given rapid cognitive development after age 7, children develop greater capacity to notice, understand, and internalize parents' messages (Doyle, Beaudet, & Aboud, 1988; Gniewosz & Noack, 2006). Consistent with this view, Nesdale and Flesser (2001) theorized that until around age 5 or 6, children's ingroup preference is mainly motivated by group identification rather than socialization input. Further, Dalege and Degner (2013) meta-analysis showed that parents' and children's intergroup attitudes were more similar for older than for younger children. Thus, it is possible that parents' values about the racial diversity of their children's friendships might be more strongly related to prosocial outcomes for older children (e.g., 7- and 8-year-olds) compared to younger children (e.g., 5- and 6-year-olds). Given both of these competing possibilities, we explored whether child age served as a moderator of relations among parenting, children's cross-race friendships, and children's prosocial outcomes.

The current study

In this study, we investigated whether parents' values about the diversity of children's friendships were associated with White children's race-based prosocial disparities and their prosocial behavior toward

Black and White targets. We first examined whether there were direct relations between parents' valuing of diversity and children's prosocial outcomes, and how this relation might differ across children of different ages. We hypothesized that parents' diversity values pertaining to race would be related to White children's relatively high level of prosocial behavior toward Black (but not White) targets and relatively low race-based disparities in prosocial behavior. We explored whether age moderated these relations. Next, we tested indirect relations and moderation of these relations by age. We hypothesized that the relation between parents' values about the diversity of children's friendships and children's race-based prosocial outcomes (i.e., disparities and behavior toward Black targets) would be explained by children's own cross-race friendships. That is, we predicted that parental values about diversity would be positively related to children's own cross-race friendships, which in turn would positively relate to children's prosocial behavior and negatively relate to prosocial disparities. We also explored the moderating role of age on these relations without specific hypotheses.

Method

Participants

Participants in the study were 190 (54.2% boys) school-aged children between the ages of 5 and 9 years old ($M = 7.09$, $SD = 0.94$) and their primary parents (i.e., the parent who spent the most amount of time with the child) recruited from a Southwest ($n = 99$) and a Northeast city ($n = 91$) in 2017, prior to the global COVID-19 pandemic and race-related riots over the death of George Floyd in the U.S. In terms of the demographics of the two sites, 62.5% of the population in the Northeast county is White, whereas 54.4% of the population in the Southwest county is White. A priori power analysis using G*Power 3.1 (Faul, Erdfelder, Lang, & Buchner, 2007) indicated that a sample size of 158 is adequate to detect a moderate effect size of 0.25 with 80% empirical power ($\alpha = 0.05$). Among all children, there were 19 pairs of siblings.¹ Kindergarten through 2nd grade children were recruited to create

¹ We also conducted analyses with one of the siblings randomly selected to be removed from the sample. Results did not differ from the total sample. We reported data from the full sample to optimize statistical power, particularly for moderation analyses.

approximately equal numbers of children in each grade. There were 64 (33.7%) kindergartners, 68 (35.8%) first graders, and 58 (30.5%) second graders. All child participants were non-Hispanic White because the researchers designed the study to investigate White children's race-based prosocial development. Most of the primary parents ($n = 175$) were biological mothers; 12 were biological fathers and 3 were of another relationship (e.g., adoptive mother). Primary parents reported on each parents' education background when applicable. Most parents had a bachelor's degree (40.5% mothers, 41.8% fathers), Master's degree (28.9% mothers, 27.0% fathers), or a doctoral degree, including J. D., Ph.D., M.D. or equivalent (12.1% mothers, 7.9% fathers). A smaller portion of the sample had less than a high school education (0% mothers, 1.1% fathers), a high school degree or equivalent (1.6% mothers, 2.1% fathers), some college experience but no degree (2.6% mothers, 7.4% fathers), or had a two-year degree (AA, AS) or a technical training certificate (4.2% mothers, 5.8% fathers). Further, primary parents reported that the annual family income ranged from less than \$15,000 to more than \$100,000 with the median income being over \$100,000.

Procedures

Participating children and their primary parents were recruited through children's museums and bookstores, local out-of-school programs and clubs, social media, and other social events (e.g., university open house) and through university databases. Participants were invited to the universities for a 1.5 to 2-h visit. During the visit, primary parents filled out a survey about parenting styles, their own attitudes and values, as well as children's social emotional well-being.² A female undergraduate research assistant (all experimenters were either White or White-passing; we did not ask about their race and ethnicity) administered a series of behavioral tasks with participating children that were designed to assess their prosocial behavior and sympathy. Children received a variety of small gifts and a participation certificate. Parents were paid \$40 (cash in Southwest and gift card in Northeast) at the end of the visit, and they were asked to give permission to contact a secondary adult (generally the other parent) and each child's teacher to complete an online questionnaire. Teachers ($n = 160$) completed questionnaires either online or on paper. Teachers received \$15 for their time. Those participants without teacher data did not differ from the rest of the sample in terms of child sex, research site, child age, education, or parental marital status (see Supplemental Materials for statistical tests). But those families without teacher data had lower family income than those with teacher data, $t(36) = -2.42, p = .021$.

Measures

Parental values about the diversity of children's friendships

Primary parents responded to three questions about their valuing of diversity related to children's friendships on a four-point Likert scale ranging from 1 = *strongly disagree* to 4 = *strongly agree* (adapted from Way et al., 2007). The items include: 1) "I think it benefits my child to have friends from diverse backgrounds." 2) "I want my child to be friends with children who are of other races/ethnicities." and 3) "It concerns me when my child makes friends with a child of a different ethnic/racial background." The third item was reverse coded. Given that the scale contained only three items, the alpha of 0.63 is satisfactory. The three items were positively and moderately correlated with bivariate correlations ranging from 0.23 to 0.56.

² Our research team examined White children's race-based sympathy using the same data set for a different publication. None of the current study variables was used in that study.

Children's cross-race friendships

Because children have friends across multiple contexts, we used multiple reporters to assess children's friendships. Following an approach that has been used in previous work (Eisenberg et al., 2009), primary parents and teachers were asked to think of four or three, respectively, of the child's closest friends, and report on each friend's gender and race to assess the diversity in children's friendships. We calculated a proportion score for parents' and teachers' reports: We divided the number of other-race friends by the total number of friends (because not all children had four/three best friends) for each reporter. We then created a composite of other-race friendships by averaging parent- and teacher-reported scores, which were moderately correlated, $r(145) = 0.43, p < .001$. This way, when teacher-report was missing, parent-report was used to maximize available data. The (ratio) scores ranged from 0 to 1 with higher score indicating more cross-race friends. Due to the low frequencies of Black friends – only 37 (19.47) and 17 (8.94%) children had any Black friends based on parent- and teacher-report, respectively – all friends of color (i.e., not White) were included to calculate cross-race friendships.

Children's prosocial disparities and prosocial behavior toward Black peers

Two behavioral resource allocation tasks were used to assess children's race-based prosocial outcomes, a star-sharing task and a candy-sharing task. Specifically, for each task, two outcomes were examined. The first was level of prosocial behavior toward Black and White targets: These scores were the raw/total number of stars and candies shared with Black and White targets. The second was disparities in prosocial behavior, calculated as a difference score between children's prosocial behavior toward White and Black targets (with a higher disparity scores indicating more White favoritism). In analyses, given the moderate correlations between the two tasks, we combined these two tasks by standardizing and averaging the raw scores across the two tasks. These composites were used to represent children's prosocial disparities and prosocial behavior toward Black peers. In supplemental materials, we included results based on each task.

The star task. Children were given 5 glow-in-the-dark plastic stars as a prize for their engagement at two times during the visit (10 stars total). Each time, the experimenter first showed the glow-in-the-dark stars and discussed with children their plans for the stars in order to create children's excitement and sense of ownership about the prize. The experimenter then showed the child a self-sealing envelope with a picture of a same-sex peer (White or Black, order was counterbalanced; standardized pictures of children (all with smiling facial expression) were chosen from the Child Affective Facial Expression (CAFÉ) set; LoBue, 2014, LoBue & Thrasher, 2015), and told the children that there were not enough stars for the pictured child who would come to the laboratory visit on the next day. Children were then told that they could give none, some, or all of their stars to the other child by putting them into the sealed envelope while the experimenter left the room to prepare for the next game for one minute (thus allowing child privacy). The sum of total stars given could range from zero to five.

The candy task. The experimenter showed children large, attractive, foil-wrapped chocolate coins and told children that they could get the candies in this game by dividing the candies between themselves and another child in the picture (Abramson, Daniel and Knafo-Noam, 2017; Fehr, Bernhard, & Rockenbach, 2008). There were five unique trials (in random order), each presented twice, once with a picture of a White child, and another with a picture of a Black child (also chosen from the CAFÉ set; LoBue, 2014, LoBue & Thrasher, 2015); the gender of these children was matched with the participating child (race of the target was counterbalanced). For each trial, participants were to divide the candies between themselves and the picture child by choosing one of two competing distribution strategies (A or B) with one being more prosocial

than the other. The trials were 1) children could choose A (no candies given to the other child, one to the self) or B (two candies to other, zero to self); 2) children could choose A (no candies given to the other child, two to the self) or B (one candy to other, one to self); 3) children could choose A (no candies given to the other child, one to the self) or B (one candy to other, one to self); 4) children could choose A (one to other, none to self) or B (none to other, one to self); and 5) children could choose A (two to other, two to self) or B (none to other, three to self). The sum of total candies given could range from zero to seven.

Results

Preliminary and descriptive analysis

Correlations, means, and standard deviations among main variables and covariates are presented in Table 1. Overall, parental values about diversity were negatively related to prosocial disparities as expected, but not any of the other prosocial outcomes. Further, parental diversity values were positively related to children's cross-race friendships, but children's cross-race friendships were unrelated to any of the prosocial outcomes. Children's star- and candy-sharing toward Black and White targets were positively and moderately correlated but star- and candy-sharing disparities scores were not correlated. Concerning control variables, family income was negatively related to children's cross-race friendships. Independent samples *t*-tests showed one significant site difference: Children in the Southwest ($M = 0.35$, $SD = 0.30$) had higher proportions of cross-race friends than did children in the Northeast ($M = 0.20$, $SD = 0.30$), $t(187) = 4.65$, $p < .001$. No sex differences were found for any of the main study variables.

Inferential analyses: direct effects

We conducted all analyses with *Mplus* version 8.4. We used Maximum Likelihood (ML) estimator to handle missing data (e.g., teacher data) and adjust standard errors. In all analyses, we controlled for research site, child sex, and family income by regressing all endogenous variables on these control variables.

Due to the relatively high correlations among prosocial outcomes, including all prosocial variables in the same model introduced convergence issues. Thus, we specified two path models to estimate the unique predictions from parents' diversity values to children's prosocial disparities (Model 1), and children's prosocial behavior toward Black peers (Model 2), and children's prosocial behavior toward White targets (Model 3). To examine age as a moderator for the direct relation between parental values and prosocial outcomes, we conducted moderation analyses with child age (mean-centered) as the moderator and regressed the endogenous variable on the interaction term between child age and parental diverse values (mean-centered): AgeXDiverse. In these models, exogenous and endogenous variables were allowed to covary among themselves, and the models were fully saturated. Because measurement was nested within individuals, we used TYPE = COMPLEX command to account for individual-level variance.

Model 1. Predicting prosocial disparities

Table 2 presents the standardized parameter estimates for Model 1. White parents' values about the diversity of children's friendships were negatively related to children's prosocial disparities. Further, age moderated the relation between parental diversity values and children's prosocial disparities. Following Aiken & West (1991) procedures, we explored the simple slopes ($\pm 1SD$ and mean level). Specifically, as Fig. 2 shows, the relation between parental diversity values and children's prosocial disparities was negative and significant for older and average-aged children but not younger children. Notably, younger children were relatively high on prosocial disparities (favoring White peers) regardless of parental diversity values. For the older children, prosocial disparities decreased as parents reported greater diversity

values.

Model 2. Predicting prosocial behavior toward Black peers

Table 2 presents the standardized parameter estimates for Model 2. As it shows, parental diversity values did not directly predict children's prosocial behavior toward Black peers. However, age moderated the relation between parental diversity values and children's prosocial behavior toward Black peers. Specifically, as Fig. 3 shows, the relation between parental diversity values and children's prosocial behavior toward Black peers was positive and significant for older children but not for average-aged and younger children. Notably, younger children were relatively low on prosocial behavior toward Black peers regardless of parental diversity values. For the older children, prosocial behavior increased as parents reported greater diversity values.

Model 3. Predicting prosocial behavior toward White peers

As Table 2 shows, parental diversity values did not predict children's prosocial behavior toward White peers. Further, age did not moderate the relation between parental diversity values and children's prosocial behavior toward White targets.

Inferential analyses: indirect effects

To estimate the hypothesized indirect relations among parental values, children's own cross-race friendships, and children's prosocial outcomes, children's cross-race friendships were specified as a mediator between parental values and children's prosocial outcomes. We performed bias-corrected bootstrapping analysis resampling 10,000 samples to estimate the indirect effects (MacKinnon, Lockwood, & Williams, 2004). To examine child age as a moderator for the indirect effects, in Bootstrapping analyses, we categorized age into older ($+1SD$), average, and younger ($-1SD$) group and used it as a grouping variable.

Table 3 presents 95% confidence interval for Bootstrapping analyses of indirect effects. Children's cross-race friendships did not explain the relation between parental diversity values and children's race-based prosocial disparities, or children's prosocial behavior toward either Black or White children. Specifically, for all children, only path *a* (i.e., parental values to children's friendships) was significant, but path *b* (i.e., children's friendships to prosocial outcomes) was not significant.³

Summary

In summary, parental diverse values were negatively related to older, but not average-aged and younger, White children's racial disparities in prosocial behavior. Further, these values were positively related to children's prosocial behavior toward Black targets and for older children. Parental diversity values were not related to children's prosocial behavior toward White targets.⁴ Lastly, children's cross-race friendships did not account for the relation between parental diversity values and children's prosocial outcomes.

³ Supplemental analyses indicated that for candy task only, this indirect relation was significant for older children.

⁴ To determine if there were significant race (target) differences in the Age X Parent Values interaction, we also estimated a linear mixed-effect model (SPSS mixed). We found that there was a significant three-way interaction for age X race of target X parental values ($\beta = -0.25$, $p = .02$) indicating the age X parent values interaction differs across target race (i.e., prosocial behavior toward White versus Black targets). Given that this approach emphasizes on children's general prosocial behavior rather than directly addresses our research questions on individual differences in children's prosocial behavior toward White and Black children, we decided to not include these data as main analyses.

Table 1
Descriptive statistics and correlations among variables.

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Family income	–												
2. Child age	–0.04	–											
3. Parent value	–0.05	0.05	–										
4. Child friend	–0.15*	0.02	0.24***	–									
5. Prosocial Disparities	–0.05	–0.13	–0.14*	–0.02	–								
6. Candy disparities	–0.02	–0.14*	–0.04	–0.02	0.74***	–							
7. Star disparities	–0.06	–0.04	–0.18*	–0.01	0.74***	0.08	–						
8. Prosocial-Black	0.04	0.34***	0.13	0.05	–0.43***	–0.30***	–0.33***	–					
9. Candy-Black	0.03	0.38***	0.12	0.08	–0.37***	–0.41***	–0.13	0.86***	–				
10. Star-Black	0.04	0.20**	0.10	0.01	–0.37***	–0.10	–0.44***	0.86***	0.48***	–			
11. Prosocial-White	0.14	0.30***	0.05	0.05	0.14	0.08	0.12	0.84***	0.73***	0.71***	–		
12. Candy-White	0.23	0.32***	0.11	0.07	0.07	0.19*	–0.09	0.74***	0.82***	0.45***	0.84***	–	
13. Star-White	0.001	0.18*	–0.02	0.01	0.16*	–0.05	0.29***	0.67***	0.41***	0.74***	0.84***	0.41***	–
Minimum	2.00	5.40	2.67	0.00	–2.11	–4.00	–3.00	–1.55	0.00	0.00	–1.67	0.00	0.00
Maximum	7.00	8.91	4.00	1.00	2.30	5.00	3.00	1.75	7.00	5.00	1.86	7.00	5.00
Mean	5.99	7.09	3.71	0.25	0.00	0.06	0.00	0.00	3.81	3.10	0.00	3.87	2.10
Standard Deviation	1.27	0.94	3.69	0.23	0.74	1.55	0.90	0.86	2.63	1.27	0.84	2.44	1.19

Notes. ⁺*p* < .10, * *p* < .05, ** *p* < .01, *** *p* < .001.

N = 190 for all variables. Family income was coded with higher number indicating higher income; Child age = child age in years; Parent value = parents' values of the diversity of children's friendships; Child friend = the proportion of children's cross-race friendships; Prosocial disparities = prosocial disparities across candy- and star-sharing; Candy-sharing Candy disparities = prosocial disparities in candy-sharing; Star disparities = prosocial disparities in star-sharing; Prosocial-Black = the average number of candies and stars shared with Black children; Candy-Black = candies shared with Black children; Star-Black = stars shared with Black children; Prosocial-White = the average number of candies and stars shared with White children; Candy-White = candies shared with White children; Star-White = stars shared with White children.

Table 2
Standardized parameter estimates assessing direct relations and the moderating role of age.

Model	Predictors	B	SE	<i>p</i> -value
Model 1 Prosocial Disparities	Research Site	–0.03	0.07	0.70
	Child Sex	–0.02	0.07	0.82
	Family Income	–0.06	0.07	0.40
	Child Age	–0.11	0.07	0.11
	Parental Diversity Values	–0.16	0.08	0.05
	Child age*Parental Values	–0.17	0.07	0.02
	R ²	0.07		
Model 2 Prosocial toward Black Peers	Research Site	0.06	0.07	0.37
	Child Sex	0.02	0.07	0.80
	Family Income	0.06	0.06	0.34
	Child Age	0.32	0.06	<
	Parental Diversity Values	0.13	0.07	0.08
	Child age*Parental Values	0.16	0.07	0.02
	R ²	0.16		
Model 3 Prosocial toward White Peers	Research Site	0.06	0.07	0.42
	Child Sex	0.01	0.07	0.89
	Family Income	0.03	0.06	0.61
	Child Age	0.31	0.07	<
	Parental Diversity Values	0.07	0.07	0.34
	Child age*Parental Values	0.08	0.08	0.32
	R ²	0.11		

Notes. Statistically significant effects are bolded. Child age and parental diversity values were mean-centered (mean = 0) in these models, and the interaction term was created using the centered variables.

Discussion

By preschool age, White children understand race and racism and have formed racial prejudices toward racial outgroup members, especially Black individuals (de França & Monteiro, 2013; Dunham et al., 2008; Rutland et al., 2005; Rutland & Killen, 2015; Van Ausdale & Feagin, 1996). As racist movements, acts of hate crimes, and the legacy

of White privilege have gained much traction and power in recent years, understanding how White children are socialized to be prosocial and equitable toward people from historically marginalized groups is an important and urgent task. Given the dearth of research on how White parents socialize children's racial attitudes and behaviors, this work is a first step to elucidate if, and how, parents' beliefs and values about race are related to White children's race-based prosocial behaviors.

In this multi-informant multi-method study, White parents' values about the racial diversity of their children's friendships were positively related to race-based prosocial behavior, but this was particularly true for older children compared to younger children. That is, parents who valued diversity in their children's friendships had children who were more prosocial toward Black targets and less disparate in their prosocial behavior. Given the increasing cognitive capacities in middle childhood, the finding that this relation held for older children may be due to their greater capacity to internalize parents' values and messages relative to younger children (Doyle et al., 1988; Gniewosz & Noack, 2006). Older children acted more prosocially over all, and likely also were more intentional in thinking about the targets of their prosocial behavior (Caplan, 1993; Eisenberg et al., 1987; Hay, 1994). As such, as children develop and have more experience with their parents, they may be more in tune and aware of their parents' values than are younger children. However, it is also possible that the finding may reflect greater awareness among older children about the social consequences of discriminatory behaviors and race-related social issues.

In comparison to older children, younger children tended to exhibit relatively low levels of prosocial behavior—a finding that is consistent with the prosocial literature that focuses on global prosocial behavior (i.e., when race or target of prosocial behavior was not considered; Eisenberg et al., 1987). Younger children (mostly kindergartners), regardless of parental values, might have been more concerned with their own resources than might older children. On a different note, considering that our research team previously found that parental implicit racial attitudes mattered for younger children's sympathy (Wang et al., 2020), it might be that younger children are more likely to respond to parents' subtle cues such as nonverbal behaviors toward people of color (Doyle et al., 1988; Gniewosz & Noack, 2006) and may be less aware of their parents' explicit attitudes about diversity than older children.

Somewhat contrary to our hypothesis and to Allport's (1954)

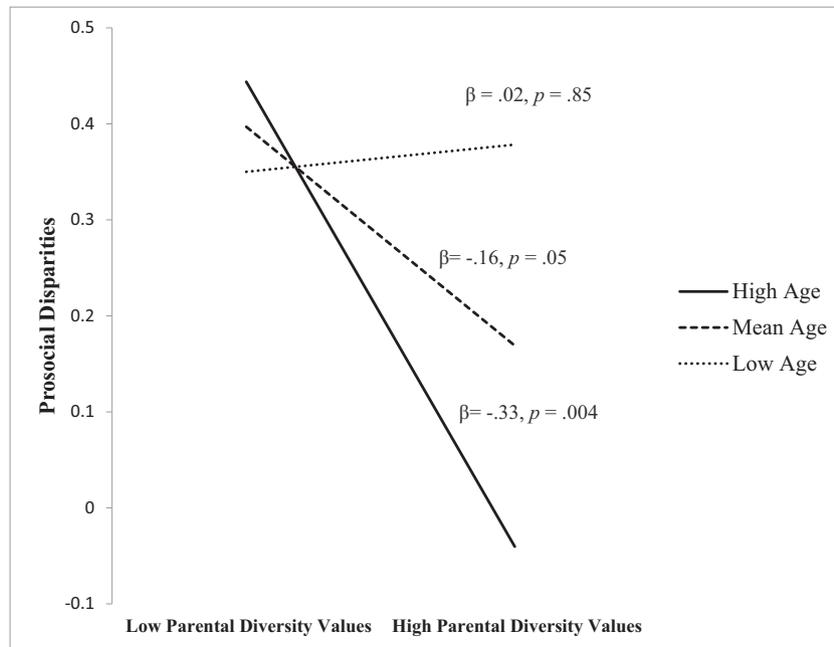


Fig. 2. Child age moderates the relation between parental diversity values and children’s prosocial disparities.

Notes. Prosocial disparities were calculated as the difference score between children’s prosocial behavior toward White and Black targets averaged across the star- and candy-sharing tasks (with a higher disparity scores indicating more White favoritism). The y-axis is truncated to more clearly display the interaction.

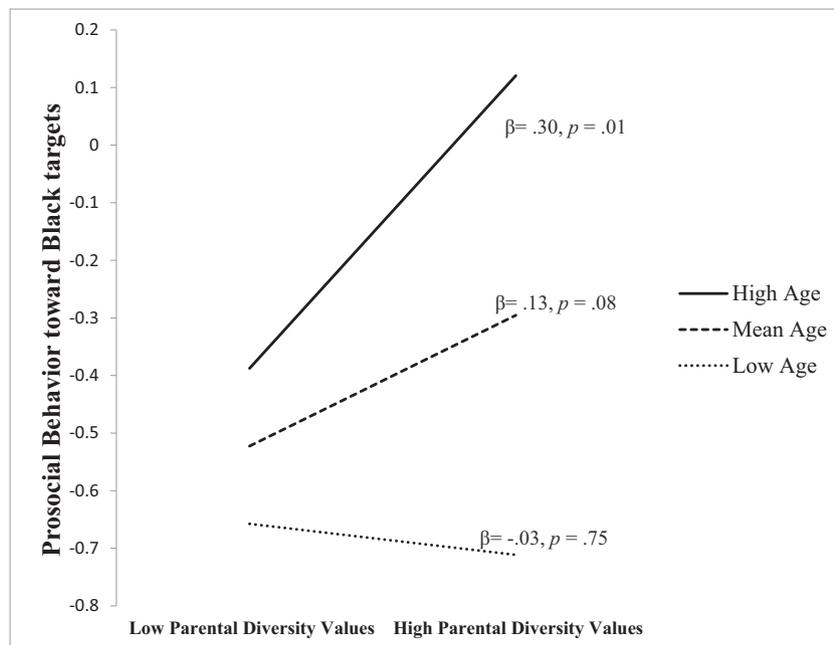


Fig. 3. Child grade moderates the relation between parental diversity values and children’s star-sharing toward Black targets.

Note. The y-axis is truncated to more clearly display the interaction.

intergroup contact hypothesis, cross-race friendships were not related to children’s race-based prosocial disparities and prosocial behavior assessed across two tasks. However, cross-race friendships were related to older children’s race-based prosocial outcomes in the candy-task (see supplemental materials). Despite the vast literature testing intergroup contact theory, researchers generally have tested how outgroup contact is related to prejudice and negative racial biases (e.g., Pettigrew & Tropp, 2008, a meta-analysis) but not for positive or prosocial behavior toward racial outgroups. This is important because a positive social behavior (action) toward someone is more costly (even a small act of

kindness) than holding positive (or less negative) attitudes toward a group (cognition). As such, it might be that cross-group friendships are related to lower prejudice for children, but having cross-group friends may not motivate children enough to act for others’ interests compared to their self-interest (Eisenberg, Lennon, & Roth, 1983; Eisenberg & Shell, 1986). Another possible explanation is due to the assessment of cross-race friendships. Specifically, the reason that cross-race friendships were not related to children’s prosocial behavior toward Black peers or prosocial disparities may be because most of the said cross-race friendships were not with Black children per se. Of the White children in

Table 3
Bootstrapping estimates of indirect effects.

Model	Sample	95% C.I.
Model 1 Prosocial Disparities	Overall Sample	[-0.10, 0.08]
	Age Moderation	
	Younger	[-0.12, 0.40]
	Average age	[-0.11, 0.08]
Model 2 Prosocial toward Black Peers	Overall Sample	[-0.41, 0.16]
	Age Moderation	
	Younger	[-0.04, 0.30]
	Average age	[-0.14, 0.07]
Model 3 Prosocial toward White Peers	Overall Sample	[-0.06, 0.38]
	Age Moderation	
	Younger	[-0.03, 0.12]
	Average age	[-0.03, 0.12]
	Younger	[-0.03, 0.41]
	Average age	[-0.15, 0.06]
	Older	[-0.11, 0.40]

our study, the number of Black friends was extremely low. There were only 17 children who had at any Black friends based on teacher-report and only 37 children had at least one Black friend based on parent report (with no statistically significant site differences). It is also possible that the relation between cross-group friendships and intergroup prosocial behavior depends on various conditions outlined by Allport (1954) such as equal status and common goals which were not explicitly tested. Regardless, with the candy-task, there was some support for the notion that children's contact and friendships with other-race peers, regardless of their specific race or ethnicity, might be an important context for children to learn about racial inequities and biases, and predicted their sharing behaviors toward other-race targets, consistent with transfer effect of intergroup contact (Pettigrew, 2009).

It is worth highlighting that for children of all age, parental diversity values were positively related to teachers' and parents' report of children's cross-race friendships. This finding contributes to the literature on parental beliefs on children's friendships, which generally has focused on other aspects of friendships (e.g., time, locations allowed to be with friends) rather than the racial backgrounds of friends (Way et al., 2007). Further, the finding suggests that at least in the early years of elementary school, parents' values about the racial diversity of children's friendships are likely directly related to White children's friendship choices at home and at school (although having children's self-reported friendship in combination with teacher and parent report would be even better).

Notably, parental diversity values were uniquely related to White children's prosocial behavior toward Black targets but not toward White targets. This finding is important because it suggests potential solutions to promote White children and youth's prosocial actions toward Black people. Indeed, Hazelbaker, Brown, Nenadal, and Mistry (2022) recently suggested that prosocial/equity behaviors focusing on equity may be a foundational ability for later anti-racism. Perhaps understanding the predictors of White children's willingness to give to Black children can provide further understanding in regard to factors that enhance White children's justice-related actions later. For researchers, this finding underscores the importance of differentiating the targets of children's prosocial behavior, particularly the race of targets, which often has not been considered in prior research (Eisenberg et al., 2015). To foster children's prosocial behavior toward diverse others, researchers need to differentiate between the targets of children's prosocial action. Further, it may be important to consider the group status of targets of prosocial behavior when assessing predictor variables such as parental values, moral values, and the quality of children's friendships.

Study limitations and future directions

As with all research, there are some limitations in this study. First, data were collected cross-sectionally, and we were not able to examine

the directionality of relations among parental values, children's friendships and children's race-based prosocial outcomes. Longitudinal data are needed to assess within-person development over time. Relatedly, participants in this study were 5-to-9-year-olds, which represented a limited range of ages. Given the age moderation effects, it is likely that parental diversity values are increasingly influential for children's racial bias and race-based behaviors over time perhaps into middle and late childhood. Understanding the timing of such relations with larger range of age groups (e.g., from kindergarten to late childhood) and with longitudinal data could aid intervention and prevention efforts to allocate resources for parent education about the benefits of children's contact and exposure to diverse others. Second, the assessment of parental values about the racial diversity of children's friendships was adapted by our team from previous research due to the paucity of research on socialization of cross-race friendships (Way et al., 2007). Because there were only three items, the relatively low Cronbach's alpha is not surprising. However, this instrument needs to be validated in future research. Third, it would be important to further unpack various aspects of parental diversity-related values in addition to their children's friendships (e.g., choices of neighborhood, school; Underhill, 2019). Lastly, it is important to note that the current findings can only be generalized to White U.S. children from relatively high-income families; how income might play in role in White children's prosocial actions toward children from historically marginalized groups is an important issue for future research.

Practical implications

Given the relatively robust evidence on the benefit for intergroup contact in reducing prejudice, many interventions have been designed to promoting intergroup contact with children and adolescents (e.g., see meta-analyses Beelmann & Heinemann, 2014; Lemmer & Wagner, 2015; a review Paluck & Green, 2009). However, these interventions generally often occur outside of the family (e.g., classrooms, schools) and rarely involve parents. The present study showed that White parents' valuing the racial diversity of their children's friendships was related to children having more cross-race friends. Further, such parental values were also related to children's lower prosocial disparities. Although being less biased does not directly translate to being more prosocial toward Black peers, intervention work aimed at improving White children's cross-race friendships and reducing their biases toward Black peers might benefit from including a parent education or communication component. Further, given that parents are children's primary socializers, it may be fruitful to develop family-based interventions. Integrating prior research on racial socialization, White parents could do so through direct conversation (Katz, 2003; Perry et al., 2021; Vittrup & Holden, 2011) or by choosing ethnically diverse activities and events for their children (Underhill, 2019).

Conclusions

In this multi-method multi-informant research, we expanded the small literature on White parents' racial socialization, and we assessed White children's relative racial-bias in prosocial behavior and the mean-levels of their prosocial behavior toward Black and White targets. Findings indicated that parents' valuing of the racial-diversity of their children's cross-race friendships was both related to White children being less biased against Black targets and more prosocial toward Black, but not White targets, but only for older children. Together, these findings have implications for promoting White children's equitable behaviors and attitudes toward diverse others.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.appdev.2022.101459>.

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