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Parenting and White children's prosocial behaviors toward same-race and other-race peers: The moderating role of targeted moral emotions

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Abstract

Objective: We examined the associations among parenting, children's moral emotions, and children's prosocial behaviors toward Black peers and White peers.

Background: Parenting practices inform children's prosocial behaviors; however, the contextual and individual factors that predict children's differentiated prosocial behaviors have been understudied.

Method: Participants were 190 White children (5.4 to 8.91 years old, 45.8% female) and their primary parents. Parents reported parenting practices. Children's prosocial behaviors were assessed through distribution tasks; children's sympathy and empathic anger were observed in response to films that depicted injustice toward others.

Results: Nurturant parenting positively predicted, whereas restrictive parenting negatively predicted, children's prosocial behaviors toward diverse others. Additionally, parenting predicted children's prosocial behaviors toward Black peers only when children expressed low levels of empathic anger toward victimized Black peers.

Conclusions: Overall, nurturant parenting is positively related, and restrictive parenting is negatively related, to children's prosocial behaviors toward different targets. Children's target-specific empathic anger moderated the relation of specific parenting practices to children's prosocial behaviors toward racial outgroup peers.

Implications: White parents should understand the way that restrictive parenting might impede children's

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generosity toward diverse others and engage in nurturant parenting, especially when children do not naturally feel concerned about distressed outgroup members.

KEYWORDS

empathic anger, parenting, prosocial, race, sympathy

INTRODUCTION

Given the systemic and interpersonal racism in the United States, it is important to understand factors underlying majority children's feelings and behaviors toward racial minority children. Disparities in White children's prosocial behaviors (i.e., voluntary behaviors that are intended to benefit others; Eisenberg et al., 2015) toward White versus other-race peers may be one of the first ways that racial discrimination is manifested in young children. Thus, understanding the roots of prosocial behaviors in a privileged group with high social power (i.e., White Americans) to marginalized groups (i.e., Black Americans) is of critical importance.

Researchers have identified various individual factors (e.g., sex, empathy-related responding, emotion regulation) and contextual factors (e.g., parental socialization, teacher-child relationship; Eisenberg et al., 2015; Ferreira et al., 2016; Padilla-Walker, 2014) that are predictive of children's and adolescents' prosocial behaviors. However, our knowledge of the interplay between individual and contextual characteristics in predicting children's prosocial behaviors toward different recipients is insufficient. In this study, we examined the moderating role of children's target-specific, situational emotional responses to distress (i.e., sympathy, empathic anger) in the association with nurturant or restrictive parenting practices to young White children's prosocial behaviors toward White peers and Black peers.

Children's prosocial behaviors toward different recipients

Researchers argue that people often have different feelings and beliefs and display different behaviors toward those who are similar to, versus different from, themselves. For instance, according to social identity theory, individuals classify themselves based on their social categories. People tend to hold positive attributions regarding members of the same social group, and favor ingroup members, relative to members from a different social group (Tajfel, 1974).

As an extension of the social identity theory, social identity development theory delineates the development of children's social group preferences and attitudes. Specifically, researchers suggest that children younger than 2 years old show little awareness of social groups and start to differentiate themselves from others based on social groups around the age of 3 years. Around age of 4 years, children begin to identify with, and express preferences for, their own (vs. other) social groups, and this ingroup preference becomes more explicit around age of 7 years (Nesdale, 2004). Additionally, the common ingroup identity model posits that individuals' cognitive, perceptual, affective representation, and environmental contexts are related to how individuals think about and treat others, and people's negative attitudes toward outgroup members may elevate and reinforce intergroup bias that favors ingroup members (Gaertner et al., 1993). All together, these theories suggest that many factors are related to children's formation of ingroup favoritism.

Children express ingroup bias during the early school years (Nesdale, 2004), and recent evidence shows that children around this age sometimes express biased empathy-related emotions toward diverse others (Spinrad et al., 2023). Furthermore, Hazelbaker et al. (2022) noted that White children's empathy and prosocial behaviors during early and middle childhood serve as

foundational skills for the development of later antiracism. Thus, this developmental period provides a critical window to understand the development of young children's ingroup favoritism and individual differences in such favoritism.

People express discriminated behaviors based on social groupings such as race and ethnicity (Marks et al., 2015). Nonetheless, studies that examine children's prosocial behaviors toward ethnic and racial groups other than their own have been limited. Some exceptions are studies examining White children's choices. For example, in a group of 3- to 5-year-olds who were predominantly White, Renno and Shutts (2015) found that children allocated more resources to ingroup (i.e., same gender, same race) than outgroup members (i.e., other gender, other race) when they had higher social preferences for, and higher expectations about receiving helps from, ingroup (vs. outgroup) peers. In addition, 12 White kindergarteners tended to give toys to another White child over a Black child (Kinzler & Spelke, 2011), and White elementary schoolers were found to distribute more coins to other White children versus Black children (Monteiro et al., 2009). These findings indicate that young children already show ingroup favoritism in their resource allocation and sharing.

Further, children's attitudes and perceptions toward others also are thought to be related to their target-specific sharing behaviors (McGuire et al., 2017; Rutland & Killen, 2017), and these attitudes and perceptions might be especially important in children's prosocial behaviors toward outgroup members. For instance, when they were asked to distribute coins between a White peer and a Black peer, White children allocated more resources to the White (vs. Black) peer (de França et al., 2013). However, when children were presented with an antiracism context (i.e., a Black interviewer stayed with the child during the resource allocation task), they distributed resources equally to the White and Black recipients. Additionally, among a group of White fourth graders, Monteiro et al. (2009) found that children showed outgroup favoritism (i.e., distributed more coins to the Black peer than to the White peer) when their antiracism awareness was triggered. Collectively, these studies suggest that when encountering needy others who are similar to versus different from themselves (i.e., the racial ingroup versus outgroup), children may spontaneously express prosociality toward ingroup members, but contextual factors can encourage children to display prosocial behaviors toward outgroup members. Nonetheless, the scarcity of relevant research calls for more studies to understand the correlates and predictors of children's differentiated prosocial behaviors.

Parenting and children's prosocial behaviors

According to the heuristic model proposed by Eisenberg et al. (2016), children's prosocial behaviors are predicted by a variety of factors, such as children's genetic features, socialization experiences, sociocognitive and other personal characteristics, and the situational context. Among all the factors, parental socialization has been viewed as a critical factor in children's prosocial development (Eisenberg et al., 2015). Scholars have investigated types of nurturant (e.g., warmth, induction) and restrictive (e.g., punitiveness, overcontrol, directiveness) parental behaviors in associations with children's global prosocial behaviors. For instance, nurturant parenting behaviors promote children's prosocial behaviors because they provide a compassionate, prosocial model for children to imitate, encourage children to internalize the values and expectations of their parents, and provide a secure foundation for children to develop close relationships with others. Thus, children of warm and sensitive parents may be more likely to help others in need (Eisenberg et al., 2015; Hastings et al., 2015). Similarly, inductive discipline promotes prosocial actions because such practices direct children's attention to other people's perspectives and the consequences of one's actions (Hastings et al., 2015; Hoffman, 2000). Empirically, parental warmth, affectionate expression, and inductive behaviors have been positively related to children's and adolescents' prosocial behaviors (e.g., Daniel et al., 2016; Eisenberg et al., 2015; Knafo & Plomin, 2006).

In contrast, parental punitive discipline is detrimental to children's prosocial behaviors; such parenting can elicit children's overarousal and result in children's self-focused rather than

other-oriented feelings and behaviors, and children's fear of punishment may interfere with their prosocial expression (Hoffman, 1970, 2000). Relatedly, parental overcontrolling and directive behaviors might impose unreasonable demands on children by forcing children to comply with parental expectations without appropriate explanations. These behaviors may prevent children from internalizing parental requests and trigger negative responses from children, thus children are less likely to show other-oriented thoughts and behaviors (Kochanska & Aksan, 1995; Rollins & Thomas, 1979). Empirically, such restrictive parenting practices (e.g., corporal punishment, force compliance, strictness) have been negatively associated with children's and adolescents' prosocial behaviors (Padilla-Walker, 2014; Piché et al., 2017).

Parental behaviors may relate to children's target-specific (vs. global) prosocial behaviors. There is limited and mixed research on the parenting predictors of target-specific prosocial behaviors. Parental warmth and support positively predict adolescents' and college students' prosocial behaviors toward parents and friends but not toward strangers (e.g., Mesurado & Richaud, 2017; Padilla-Walker & Christensen, 2011; Padilla-Walker & Son, 2019). Contrary to those findings, Padilla-Walker et al. (2016) reported that maternal and paternal warmth were positively related to adolescents' prosocial behaviors regardless of the target, and parental hostility negatively predicted adolescents' prosocial behaviors toward family members, friends, and strangers. Thus, parental warmth likely is consistently related to prosocial behaviors toward children's "ingroups" (i.e., family, friends) and may sometimes be positively related to prosocial behaviors toward strangers, but parental hostility might undermine children's helpful and generous behaviors, regardless of the target. Nonetheless, our knowledge of how parenting behaviors relate to children's prosocial behaviors to different targets, especially targets from different racial groups, is still limited.

The moderating role of children's race-based moral emotions

Moral emotions refer to individuals' emotions that are triggered by behaviors or events that are consistent with (or in violation of) one's moral standards, such as empathy-related responses, shame, and guilt (Ongley & Malti, 2014). Among various moral emotions, empathy and its related emotional responses (e.g., sympathy, personal distress) are often studied as important, but distinct, correlates of prosocial behaviors. Specifically, empathy refers to individuals' affective response that is the same or similar to another's emotional condition (Eisenberg et al., 2006). Sympathy (i.e., feeling sorrow or concern for the needy other; Eisenberg et al., 2015) is believed to frequently (but not always) stem from empathy. Sympathy is thought to motivate prosocial behaviors, especially prosocial behaviors that are other-oriented (Batson, 1991; Eisenberg & Miller, 1987). In contrast, personal distress (i.e., a self-focused, aversive emotional reaction to the vicarious experiencing of another's emotion; Eisenberg et al., 2015) is believed to motivate avoidance of the other person rather than prosocial behaviors because individuals focus on their own distress unless their only escape from their distress is to provide help (Eisenberg et al., 2015). In addition, empathic anger (i.e., the feeling of anger on behalf of the victims when seeing others are treated unfairly or harmed) is also thought to motivate people's altruistic prosocial behaviors with the goal of compensating the victims and alleviating their suffering (Batson et al., 2007; Laible et al., 2008; Vitaglione & Barnett, 2003). In this study, we focused on the relation of moral emotions of sympathy and empathic anger to children's prosocial behaviors because both emotions are other-oriented and are believed to function as important motivators of prosocial behaviors (Batson, 2011; Eisenberg et al., 2015; van Doorn et al., 2018).

Considerable extant evidence has supported the positive association between children's sympathetic feelings and prosocial behaviors (e.g., Edwards et al., 2015; Eisenberg et al., 2015; Malti et al., 2009). In addition, a positive relation between empathic anger and adolescents' and college students' prosocial behaviors has been found (e.g., Laible et al., 2008; van Doorn

et al., 2018; Vitaglione & Barnett, 2003), but studies that investigated the association between young children's empathic anger and prosocial behaviors are limited. For instance, Vaish et al. (2011) found that after witnessing a puppet whose belongings were destroyed by another puppet, 3-year-olds demonstrated protestive actions toward the perpetrator on behalf of the victimized puppet, and showed prosocial behaviors toward the victim. Similarly, Xiao et al. (2019) found that when being treated unfairly (i.e., children's candies were taken away by an adult), preschoolers' observed anger positively predicted their prosocial behaviors toward a stranger 1 year later. Thus, there is some preliminary support for the notion that young children's moral feelings in response to injustices predict their prosocial behaviors toward others. Nonetheless, more studies are needed to understand the role of empathic anger in young children's prosocial behaviors.

Eisenberg and colleagues' heuristic model of children's prosocial behaviors suggests that parental socialization practices and children's individual characteristics interact to predict their prosocial behaviors (Eisenberg et al., 2016). Empirically, researchers have found that the association between parenting practices and children's prosocial behaviors vary across children's age, sex, and family socioeconomic status (Gryczkowski et al., 2018; Hu & Feng, 2021). Researchers also have examined the interaction between parenting practices and children's or adolescents' empathy in associations with other developmental outcomes, but the findings were not consistent. For instance, evidence has supported the interaction between parenting practices and children's empathy in associations with their maladjustment problems (e.g., aggression, conduct problems; Miller et al., 2014; Van der Graaff et al., 2012), but children's empathy did not moderate the relation between parental prejudice and adolescents' anti-immigrant attitudes (Miklikowska, 2017).

However, to our knowledge, researchers have yet to examine the interaction between parenting and children's moral emotions in association with children's prosocial behaviors toward recipients of different racial groups. We argue that the interaction between parenting behaviors and children's characteristics (namely, their sympathy and empathic anger reactions) might differ based on the recipient(s) of prosocial behaviors. Specifically, when the recipients of prosocial behaviors are outgroup members, children who do not feel particularly concerned, angry, or upset by their witnessed injustice are unlikely to exhibit substantial prosocial behaviors toward outgroup peers, regardless of the parenting practices they receive. On the other hand, parenting would be expected to relate to children's prosocial behaviors toward outgroups when children feel at least a moderate level of concern, upset, or anger when seeing outgroup members are treated unfairly. In terms of prosocial behaviors toward ingroup peers, it is plausible that there are direct relations of parenting behaviors to children's prosocial behaviors with no (or less) moderation by children's moral emotions toward ingroup peers because children may feel an obligation or inclination to be generous with ingroup peers, regardless of their emotional reactions when witnessing an injustice against them (see Figure 1).

Current study

Taken together, in the present study, we examined the moderating role of White children's sympathy and empathic anger in the relations between nurturant or restrictive parenting behaviors and children's prosocial behaviors toward White peers and Black peers. Based on current literature, we anticipated positive relations of nurturant parenting practices, and negative relations of restrictive parenting practices, to children's prosocial behaviors toward White peers and Black peers. However, these associations may differ based on children's target-specific sympathy and empathic anger. Specifically, we anticipated when seeing a distressed Black peer, nurturant parental practices would be positively associated with children's prosocial behaviors to Black peers among children with higher (vs. lower) levels of sympathy or empathic anger toward

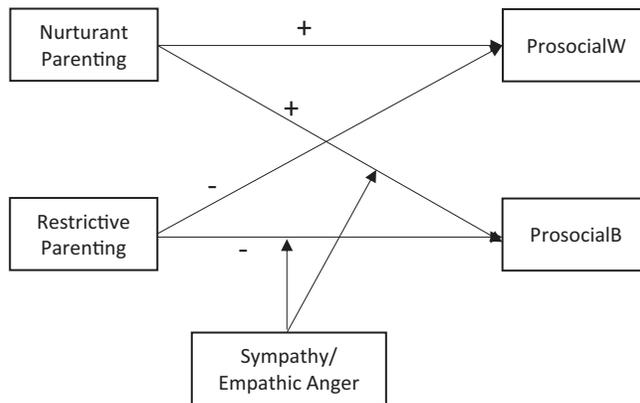


FIGURE 1 Conceptual model of the relations of parenting and children's moral emotions to children's prosocial behaviors toward White peers and Black peers. *Note.* ProsocialB = children's prosocial behaviors toward Black peers; ProsocialW = children's prosocial behaviors toward White peers. In the current study, nurturant and restrictive parenting were examined in separate models and prosocial behaviors to White peers and Black peers were examined in separate models due to multicollinearity. Plus and minus signs indicate hypothesized directions of associations.

Black peers. In contrast, we anticipated children's higher levels of outgroup sympathy and empathic anger would buffer the negative prediction from restrictive parental practices to children's prosocial behaviors toward Black peers.

We also examined the above associations in children's prosocial behaviors toward White peers. Based on our arguments, we tentatively anticipated nurturant parenting would positively, whereas restrictive parenting would negatively, predict children's prosocial behaviors toward White peers, regardless of children's ingroup sympathy or empathic anger (or to a lesser degree than for Black targets) when seeing White peers were victimized (see Figure 1 for a conceptual model).

METHODS

Participants

Participants were 190 White children (5.4 to 8.91 years old, $M = 7.09$ years, $SD = .94$, 45.8% female) and their primary parent (175 biological mothers, one stepmother, one adoptive mother, 12 biological fathers, and one other relative) from two metropolitan areas from a Southwest ($n = 99$) and Northeast ($n = 91$) area in the United States. The primary parents reported an age range between 28.32 to 50.16 years old ($M = 38.77$, $SD = 4.31$, one missing). In addition, 81.05% parents received bachelor's or higher degrees (one missing), and 51.1% of the families had an annual income over \$100,000. Following Faul et al. (2009), a priori power analysis in G*Power 3.1 showed that a sample size of 166 is adequate to detect a medium effect size ($f^2 = .15$), with 95% power.

Procedures

The study was approved by the institutional review boards at Arizona State University and Lehigh University. Participating families in the Southwest area were recruited through child museums and bookstores, after-school programs, social media, and social events such as

university open house. Participating families in the Northeast area were invited through a participants pool hosted by Lehigh University. Participating children were invited to an approximately 90-minute laboratory visit with their primary parent (i.e., the parent who spent most time with the child), during which various questionnaires and behavioral assessments were completed by the parents and children. At the end of the visit, the parents received \$40 (either in cash or gift cards) and a thank you note; children received some small gifts and a certificate for their participation.

Measures

Nurturant and restrictive parenting behaviors

Parents completed an adapted version of the Parenting Styles and Dimensions Questionnaire (PSDQ; Robinson et al., 2001). Four parenting dimensions were evaluated: warmth (e.g., "I tell my child that we appreciate what he/she tries or accomplishes"; 11 items, $\alpha = .83$), reasoning/induction (e.g., "I explain to my child how I feel about the child's good and bad behavior"; seven items, $\alpha = .80$), directiveness (e.g., "I scold or criticize when my child's behavior doesn't meet our expectations"; four items, $\alpha = .66$), and punitive/nonreasoning parenting (e.g., "I punish by taking privileges away from my child with little if any explanation"; six items, $\alpha = .71$). Items were rated on a 5-point Likert scale (1 = *never*, 5 = *always*), and item scores were averaged, with higher scores representing stronger characteristics of that parenting dimension. Given the high correlations between parental warmth and reasoning ($r = .61$, $p < .001$), and between parental directiveness and punitiveness ($r = .52$, $p < .001$), a nurturant parenting composite was created by averaging the parental warmth and reasoning subscale score, and a restrictive parenting composite was created by averaging the parental directiveness and punitiveness subscale score.¹

Children's moral emotions toward distressed Black peers and White peers

The participating children were asked to watch two sets of short video clips (two videos in each set, total of four videos) that depicted social injustice against a Black peer in one set and against a White peer in another set (order was counterbalanced). In the first video, "Art Project," a child was showing his or her peer the art project he or she has been working on and would be displayed at the school art show. Another White child came and teased at the art project and poured milk on it. The second video, "Uh Oh Orange Juice," depicted a scene where two children were talking about an upcoming birthday party and one of the children expressed his or her liking of orange juice. Another child came, teased the child, and poured orange juice on his or her white shirt. The third video, "Bad Haircut," depicted a child mocked for his or her new haircut, and the fourth video, "Ugly Shirt," depicted a child teased by another peer because he or she was wearing an unusual shirt. At the end of each video, the victim in the films expressed sadness, looked down at the ruined art project or shirt, put the hoodie over his or her head (Bad Haircut), or put the backpack in front of the shirt (Ugly Shirt). Each video clip was filmed with four versions: Black boy victim, Black girl victim, White boy victim, and White girl victim. All characters were performed by children around the same ages as the participants, all the perpetrators² in the video were White children, and participating children watched the video clips in which all the actors were same sex as the participating children.

Children's facial reactions while watching these videos were recorded and coded from videotape every 15 seconds. Each video was divided into the previctimization (before victimization happens), victimization, and postvictimization (10 seconds after video ended) segments.

Children's expressions of sympathy and empathic anger during the victimization portions were used to capture children's situational emotional responses. Child sympathy was observed through facial expression (e.g., flat, pulled down eyebrows and forward over the bridge of nose; Eisenberg et al., 1988). Children's empathic anger reflected facial anger (i.e., tense and raised cheeks and squinted eyes). Both reactions were coded on a 4-point scale, with 0 = *no sign of emotion*, and 3 = *consistent strong or exceptionally strong display of emotion*. The videos were coded by several members from the research team, with one coder serving as the reliability coder who coded 20% of the videos. The interrater reliability (calculated by intraclass correlation; Hallgren, 2012) was .79 and .75 for sympathy and empathic anger, respectively. Children's sympathy and empathic anger coding were averaged across the sets of videos to compute composites for children's sympathy and empathic anger, separately for reactions toward Black and White distressed peers.

Children's prosocial behaviors

Three distribution tasks were used to capture children's prosocial behaviors toward Black peers and White peers separately: chocolate sharing, star sharing, and money sharing. These distribution tasks were costly such that if the children chose to share with others, they would have less of the resource for themselves (Spinrad et al., 2023).

Chocolate sharing

A chocolate distribution task was modified based on House et al. (2012, 2014). Children were asked to make 10 forced choices involving the sharing of large chocolate coins to a picture of a same-sex child (the ages of the pictured children were similar with the participating children, and the pictures were not the same children as seen in the video clips), and children were asked to choose one of two options that varied in the level of cost to self and generosity to other. In the first choice, children could choose to give (a) zero chocolate to other, one chocolate to self, or (b) two chocolate to other, none to self. In the second choice, children could choose to give (a) two to other, two to self, or (b) none to other, three to self. In the third choice, children could choose to give (a) none to other, one to self, or (b) one to other, one to self. In the fourth choice, children could choose to give (a) one to other, none to self, or (b) none to other, one to self. In the fifth choice, children could choose to give (a) one to other, one to self, or (b) none to other, two to self.

The five options were presented twice in random order; each force-choice option was presented with a White child in the photo (using a different child for each force-choice to ensure that attractiveness of any one child would not be a factor) and a Black child in the photo (using a different child in each forced-choice). The number of chocolates that children shared with the White peers and Black peers, respectively, ranged from zero to seven. The total numbers of chocolates given to the White peers ($M = 3.87$, $SD = 2.44$) and Black peers ($M = 3.81$, $SD = 2.64$) were computed separately.

Star sharing

Two times during the visit, the children were given five glow-in-the-dark plastic star stickers as a prize for them completing the tasks (10 stars total). Each time, the experimenter showed the children an envelope with a picture of a same-sex, same-age peer (once with a White peer, once with a Black peer, counterbalanced order), and told the children that there were not enough star stickers for the pictured child, who would come to the laboratory visit on the next day. Children were instructed that they could share none, some, or all of their stickers by placing the stickers in the envelope, and putting the envelope in a second envelope so that the experimenter would not know what they did. Then, the experimenter left the room to allow the child to share or

not. The number of stars that children donated was calculated for White peers and Black peers separately (ranged from 0 to 5; $M_s = 2.10$, $SD_s = 1.19$ and 1.27 for sharing with White peer and Black peer, respectively).

Money sharing

Toward the end of the lab visit, the participating children were given 10 quarters as part of their prize for completing all the tasks. Next, children watched a short video depicting two opposite-sex, same-age children (one White and one Black) discussing their school trip to "Disney." The children sadly explained that they had tried every option for raising money, but that they had not been able to raise enough funds to go to the school trip. After the video, experimenters checked that children understood the film by asking the children to retell what they saw in the video, and the children were told that they could help by giving none, some, or all of their money to the children in the film if they wanted. Two envelopes were provided, each with a picture of the White and the Black child in the film. The experimenter left the room to allow the children to distribute their quarters if they chose to do so. The number of quarters that children gave to the White peer and Black peer (range from 0 to 10; $M_s = 2.06$ and 2.08 , $SD_s = 1.49$ and 1.46 for sharing with White peer and Black peer, respectively) was calculated separately.

Across the three distribution tasks, children's sharing behaviors were correlated with each other (ranged from .33 to .48, $p_s < .001$) when grouped by the target of prosocial behaviors (i.e., Black versus White peers). Two prosocial behaviors composite scores were created by standardizing and averaging the scores for the three tasks for White and Black peers separately.

Control variables

Control variables included parent-reported child age (in years), child sex (1 = male, 0 = female), assessment site (1 = Southwest, 0 = Northeast), and family socioeconomic status (SES). Family SES was computed as the average score of the standardized scores of maternal and paternal educational level (1 = some high school no diploma, 8 = PhD, MD, JD, or other doctorate), and family annual income (1 = less than \$15,000, 7 = over \$100,000).

RESULTS

Missing data and descriptive statistics

Descriptive analysis and correlations of all study variables were computed in IBM SPSS Statistics (Version 26) and are presented in Table 1. Children's prosocial behaviors were highly correlated across recipients ($r = .90$, $p < .001$). Children's empathic anger with Black victims and White victims was also significantly correlated ($r = .47$, $p < .001$), as was children's sympathy across victims ($r = .40$, $p < .001$).³

No child had missing data on parenting or prosocial behaviors composites, but four children had missingness on the facial emotion variables. Participants with versus without missing data were not significantly different in family SES, $t(188) = .36$, $p = .72$; child sex, $\chi^2(1) = .04$, $p = .83$; or parenting composites, $t_s(188) = 1.46$ and $-.35$, $p_s = .15$ and $.73$, for nurturant and restrictive parenting, respectively.

Across the two assessment sites, no significant mean differences were found for nurturant, $t(188) = 1.27$, $p = .21$, or restrictive parenting, $t(188) = -.14$, $p = .89$; children's sympathy toward Black peers, $t(186) = 1.54$, $p = .13$, or White peers, $t(184) = -.06$, $p = .95$; children's empathic anger toward White peers, $t(155.39) = 1.72$, $p = .09$; or children's prosocial behaviors toward Black peers, $t(188) = 1.50$, $p = .14$, or White peers, $t(188) = 1.71$, $p = .09$. Children in the Northeast (vs. Southwest) showed higher empathic anger toward the victimized Black peers, $t(156.33) = 2.09$, $p = .001$.

TABLE 1 Descriptive statistics and correlations of study variables

	1	2	3	4	5	6	7	8	9	10	11	12
1. Nurturant parenting	—											
2. Restrictive parenting	-.35***	—										
3. AngerB	-.11	-.06	—									
4. AngerW	-.02	-.07	.47***	—								
5. SympathyB	-.06	.10	-.02	.17*	—							
6. SympathyW	-.13	-.05	.26***	.07	.40***	—						
7. ProsocialB	.15*	-.22**	.11	.13	.08	.09	—					
8. ProsocialW	.14*	-.19**	.11	.13	.07	.09	.90***	—				
9. Age	.03	-.06	.01	.22**	.10	-.08	.30***	.29***	—			
10. SES	.004	-.08	.09	.09	-.01	-.01	-.06	-.05	-.05	—		
11. Sex	-.003	.09	.11	-.02	-.15*	-.07	.01	.01	.002	-.02	—	
12. Site	-.09	.01	-.15*	-.13	-.11	.01	-.11	-.12	-.08	.06	-.01	—
<i>M</i>	4.18	2.00	.10	.10	.13	.16	-.000	-.001	7.10	.000	—	
<i>SD</i>	.40	.43	.21	.20	.29	.29	.77	.77	.94	.76	—	
Minimum	3.00	1.13	.00	.00	.00	.00	-1.51	-1.58	5.40	-2.64	—	
Maximum	4.96	3.33	1.17	1.17	1.67	1.59	1.83	1.90	8.91	1.19	—	

Note: B = children's moral emotions/prosocial behaviors toward the victimized Black peers; SES = socioeconomic status; W = children's moral emotions/prosocial behaviors toward the victimized White peers. Child sex was coded 0 = female, 1 = male; assessment site 0 = Northeast, 1 = Southwest.

* $p \leq .05$.

** $p \leq .01$.

*** $p \leq .001$.

Regarding sex differences, neither nurturant, $t(188) = .04, p = .97$, nor restrictive, $t(188) = -1.20, p = .23$, parenting differed for sons versus daughters. Boys and girls did not differ on their empathic anger toward Black peers, $t(184.74) = -1.57, p = .12$, or White peers, $t(184) = .25, p = .80$; their prosocial behaviors to Black peers, $t(188) = -.14, p = .89$, or White peers, $t(188) = -.13, p = .90$; or children's sympathy toward White peers, $t(184) = 1.00, p = .33$. However, girls showed higher levels of sympathy toward Black peers than did boys, $t(139.50) = 2.04, p = .04$.

Primary analyses

Normality, homoscedasticity, and multicollinearity were examined before performing the primary analyses using SPSS. Path models were constructed to examine our hypothesized associations using Mplus 8.4. Two sets of models were estimated to examine the moderating role of children's moral emotions toward the victimized Black peers and White peers, respectively. Further, given that children's moral emotions toward Black peers and White peers were slightly skewed (ranged between 2.17 to 2.64), MLR—a full information maximum likelihood estimator that could account for the nonnormality of these variables—was used in the moderation analyses.⁴

Prosocial behaviors toward Black peers

We first examined the associations between parenting practices, children's moral emotions when seeing a Black peer being victimized, and children's prosocial behaviors toward Black peers. We started with identifying two models that examined the main effects of nurturant and restrictive parenting behaviors, respectively, on children's prosocial behaviors toward Black peers. To do this, children's prosocial behaviors to Black peers were entered as the outcome variable, control variables (i.e., age, sex, site, SES) were entered as covariates, and nurturant and restrictive parenting practices were entered as the predictors in separate models. We examined the prediction from nurturant and restrictive parenting practices to children's prosocial behaviors in different models to avoid multicollinearity issues given the negative and moderate correlation between those two variables ($r = -.35, p < .001$).

The second step was to examine the moderating role of children's moral emotions (i.e., sympathy, empathic anger) when viewing films depicting victimized Black peers in the above associations. Following Aiken and West's (1991) procedures, children's moral emotions and the interaction terms were entered as additional predictors. Two interaction terms were created including the interaction between the parenting variable and children's empathic anger toward Black peers and between the parenting variable and children's sympathy toward Black peers, respectively. This step was conducted for both nurturant and restrictive parenting.

Results are presented in Table 2. In the main effect models, results showed that nurturant parenting ($b = .26, p = .05$) and child age positively predicted children's prosocial behaviors to Black peers ($b = .24, p < .001$). Restrictive parenting negatively predicted ($b = -.38, p = .002$), whereas child age positively predicted, children's prosocial behaviors to Black peers ($b = .23, p < .001$).

In the interaction models for nurturant parenting (i.e., Step 2), children's sympathy ($b = .14, p = .49$) and empathic anger ($b = .16, p = .57$) were not directly associated with their prosocial behaviors toward Black peers. However, a significant interaction was found between nurturant parenting and children's expressions of empathic anger when seeing a victimized Black peer ($b = -1.47, p = .03$). Probing of the simple slopes indicated that nurturant parenting positively predicted children's prosocial behaviors toward Black peers only when children showed low ($b = .55, p = .004$) levels of empathic anger when witnessing a victimized Black peer. When children displayed mean ($b = .23, p = .10$) and high ($b = -.08, p = .70$) levels of

TABLE 2 Model results of predicting children's prosocial behaviors to Black and White peers from parenting behaviors, and the moderating role of children's moral emotions

Predictor	Prosocial to Black peers			Prosocial to White peers		
	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β
Nurturant parenting	.26*	.13	.14*	.25	.13	.13
Age	.24***	.06	.29***	.23***	.06	.28***
SES	-.05	.07	-.04	-.04	.07	-.03
Sex	.01	.11	.01	.01	.11	.01
Site	-.11	.11	-.07	-.14	.11	-.09
<i>R</i> ²	.12**			.11**		
Restrictive parenting	-.38**	.12	-.21**	-.33**	.12	-.18**
Age	.23***	.06	.28***	.22***	.06	.27***
SES	-.06	.07	-.06	-.05	.07	-.05
Sex	.04	.10	.03	.04	.11	.02
Site	-.12	.10	-.08	-.15	.11	-.10
<i>R</i> ²	.14**			.13**		
Nurturant parenting	.23	.14	.12	.28*	.14	.15*
Sympathy	.14	.20	.05	.31	.18	.12
Empathic anger	.16	.29	.04	.21	.27	.06
Parenting*Sympathy	.10	.39	.02	-.14	.34	-.02
Parenting*Anger	-1.47*	.66	-.14*	.73	.91	.07
Age	.23***	.06	.28***	.23***	.06	.28***
SES	-.06	.07	-.06	-.04	.07	-.03
Sex	-.002	.10	-.001	.03	.10	.02
Site	-.08	.11	-.05	-.12	.11	-.08
<i>R</i> ²	.15***			.13**		
Restrictive parenting	-.37***	.12	-.20***	-.31**	.11	-.17**
Sympathy	.21	.21	.08	.25	.14	.09
Empathic anger	.34	.23	.09	.18	.28	.05
Parenting*Sympathy	-.19	.39	-.03	-.52	.34	-.08
Parenting*Anger	1.25*	.57	.14*	-.35	.60	-.04
Age	.21***	.06	.26***	.22***	.06	.27***
SES	-.06	.07	-.06	-.06	.07	-.06
Sex	.04	.10	.03	.04	.11	.02
Site	-.10	.11	-.06	-.13	.11	-.09
<i>R</i> ²	.17***			.15**		

Note. SES = socioeconomic status. Unstandardized estimates were presented first. STDYX standardization (for continuous predictors) and STDY standardization (for binary predictors) estimates were presented. Children's chocolate, star, and money sharing to others were entered as outcome variables in the same model. Sex was binary coded as 0 = female, 1 = male. Site was binary coded as site 0 = Northeast, 1 = Southwest.

* $p \leq .05$.

** $p \leq .01$.

*** $p \leq .001$.

empathic anger, nurturant parenting was unrelated to their prosocial behaviors (Figure 2a). Nurturant parenting and children's sympathy did not interact to predict prosocial behaviors ($b = .10, p = .80$).

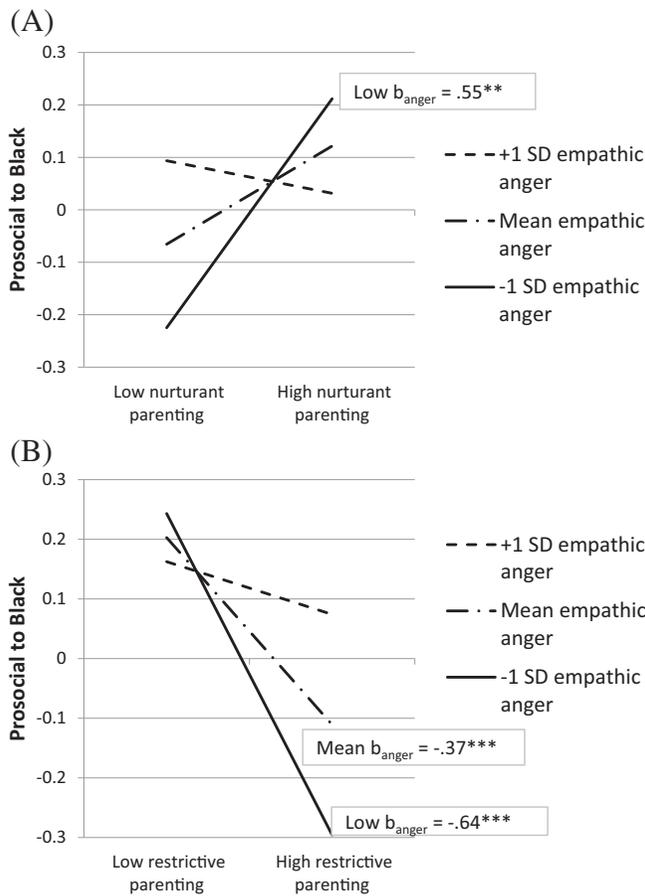


FIGURE 2 (A) Children's empathic anger in response to victimized Black peers moderated the prediction from nurturant parenting to children's prosocial behaviors to Black peers. (B) Children's empathic anger in response to victimized Black peers moderated the prediction from restrictive parenting to children's prosocial behaviors to Black peers $^{**}p \leq .01$. $^{***}p \leq .001$.

We then examined whether children's moral emotions moderated the association between restrictive parenting behaviors and children's prosocial behaviors toward Black peers. Results indicated no main effect of children's sympathy ($b = .21$, $p = .31$) or empathic anger ($b = .34$, $p = .14$) on their prosocial behaviors toward Black peers. Further, there was no significant interaction between restrictive parenting and children's sympathy toward Black peers ($b = -.19$, $p = .63$). However, a significant interaction was found between restrictive parenting and children's expressions of empathic anger when seeing a victimized Black peer ($b = 1.25$, $p = .03$). Specifically, restrictive parenting negatively predicted children's prosocial behaviors toward Black peers only when children showed low ($b = -.64$, $p < .001$) and mean ($b = -.37$, $p = .001$) levels of empathic anger when witnessing a victimized Black peer. When children displayed high levels of empathic anger, White children's prosocial behaviors toward a Black peer was relatively high regardless of the level of restrictive parenting they received ($b = -.10$, $p = .55$; Figure 2b).

Prosocial behaviors toward White peers

We repeated the same model structure in predicting children's prosocial behaviors toward White peers. In the first step examining main effect of parenting, nurturant parenting behaviors

showed no significant association with children's prosocial behaviors toward White peers ($b = .25, p = .07$), whereas the model that examined the main effect of restrictive parenting behaviors indicated that restrictive parenting negatively predicted children's prosocial behaviors to White peers ($b = -.33, p = .01$), and child age positively predicted children's prosocial behaviors to White peers ($bs = .23$ and $.22, ps < .001$ in the nurturant parenting and restrictive parenting models, respectively).

In the second step (see Table 2) that included both main effects and interaction effects with moral emotions, results showed no main effects for empathic anger ($bs = .21$ and $.18, ps = .44$ and $.53$, in the nurturant parenting and restrictive parenting models, respectively) or sympathy ($bs = .31$ and $.25, ps = .09$, in the nurturant parenting and negative parenting models, respectively). Further, no interactions between empathic anger and nurturant ($b = .73, p = .42$) or restrictive ($b = -.35, p = .56$) parenting, or between sympathy and nurturant ($b = -.14, p = .69$) or restrictive ($b = -.52, p = .12$) parenting, were found.⁵

Although not a primary question, because age was positively associated with children's prosocial behaviors toward both Black peers and White peers, we also conducted additional analyses to examine whether the relations between parenting, children's moral emotions, and children's prosocial behaviors were moderated by children's age. Four 2-way interactions (i.e., parenting style by child age) and eight 3-way interactions (i.e., parenting style by child age by moral emotions) were tested, and the results showed no significant interactions with age.

Summary

To summarize, parental nurturant parenting was positively related to, whereas parental restrictive parenting was negatively related to, children's prosocial behaviors to diverse others. Children's sympathy and empathic anger were not related to children's prosocial behaviors to either recipient, but children tended to show more prosocial behaviors to both Black peers and White peers with age. Finally, children's empathic anger moderated the association between parenting behaviors and their prosocial behaviors to Black (but not White) peers.

DISCUSSION

We examined the associations between parenting practices (i.e., nurturant, restrictive) and White young children's prosocial behaviors toward Black peers and White peers, and the moderating role of children's moral emotions toward distressed others in the above associations. We hypothesized positive relation of nurturant parenting practices, and negative relation of restrictive parenting, with children's prosocial behaviors toward Black peers and White peers. Further, when the recipients of prosocial behaviors were racial outgroup members, we anticipated children's high levels of moral emotions (i.e., sympathy, empathic anger) would exaggerate the positive relations of nurturant parenting, and buffer the negative relations of restrictive parenting, to their outgroup prosocial behaviors. However, our findings indicated that it was under conditions of low moral emotions that parenting practices predicted children's generosity toward Black peers.

Consistent with expectations, when nurturant and restrictive parenting were examined as independent predictors of children's prosocial behaviors, the overall patterns of our findings showed positive predictions from parental nurturant practices, and negative predictions from parental restrictive practices to children's prosocial behaviors both toward White peers and Black peers (although the prediction from nurturant parenting to ingroup prosocial behaviors was only marginally significant). In general, these findings are consistent with the existing body of literature, where affectionate and supportive parenting appear to nurture, whereas restrictive and controlling parenting behaviors appear to hinder, children's prosocial behaviors (Eisenberg et al., 2015).

The most interesting finding from the series of analyses was the evidence that children's empathic anger moderated the associations between parenting behaviors and children's prosocial behaviors toward outgroup, but not ingroup, members. First, when viewing an injustice toward a Black peer, children who expressed relatively high levels of empathic anger tended to distribute more resources to racial outgroup members, regardless of the level of nurturant or restrictive parenting (Figure 2a, Figure 2b). In other words, children who were more outraged when viewing victimization of a Black child were more generous toward Black children, regardless of parental socialization. However, when children expressed low levels of empathic anger (and most likely expressed no emotion at all), nurturant parenting practices were positively associated with their generosity toward Black peers.

Relative to peers with high empathic anger, people with low levels of empathic anger may lack adequate motivation to behave prosocially (van Doorn et al., 2018). Additionally, according to theories that support children's ingroup bias (Gaertner & Dovidio, 2005; Gaertner et al., 1993; Nesdale, 2004; Tajfel, 1974), children tend to express more kindness to people from the same (vs. other) social group (i.e., race), and children may perceive helping an outgroup as more costly given their weak social identity connection with outgroup members. Collectively, those factors may prevent children from expressing helping and sharing behaviors toward outgroup members. Nonetheless, for those children who experience low levels of empathic anger when witnessing outgroup members being victimized, nurturant parenting might be especially important for encouraging children's prosocial behaviors, as such parenting behaviors foster children's compassion and construct a trusting relationship toward peers (Eisenberg et al., 2015).

We also found that restrictive parenting was negatively related to children's prosociality toward Black peers only when they showed low (vs. high) levels of outgroup empathic anger. Because controlling parenting behaviors may overarouse and hinder children's ability to care for others (Eisenberg et al., 2015; Hoffman, 2000), low empathic anger and controlling parenting may function interactively to withdraw children from participating in prosocial behaviors. Interestingly, children with low empathic anger are reactive to both nurturant and restrictive parenting practices in their engagement of outgroup prosociality.

Potentially, for children who lack the intrinsic motivation (i.e., empathic anger), external clues (i.e., parental messages) and modeling are especially important to promote or hinder their prosocial behaviors. In corroboration with the conceptual model proposed by Eisenberg et al. (2016), these findings indicate children's prosocial behaviors are the product of various individual and contextual factors. Alternatively, it is possible that children's prosocial behaviors trigger different parental responses (e.g., parents respond to children's low prosociality with less nurturant and/or more restrictive parenting, the child-driven effect), and this relation is moderated by children's moral emotions. Nonetheless, given the cross-sectional nature of the study, we were not able to examine any sequential mechanisms between parenting, children's moral emotions, and their prosocial behaviors, which await future investigation.

Although we found the moderating role of children's empathic anger in the associations between parenting behaviors and children's prosocial behaviors toward outgroup peers, similar associations were not found when children's sympathy was examined as the moderator. Notably, in our study, the recipients of prosocial behaviors were different children from the victims in the films. Thus, it is likely that sympathy elicits prosocial behaviors that are directed to the victimized target, whereas empathic anger triggers a more general prosocial response than sympathy, but this speculative explanation needs to be examined in future studies. On the other hand, because our findings indicated that empathic anger was relevant to children's prosocial behaviors toward outgroup members, we would expect that such findings would be relevant to forms of prosocial behaviors such as standing up to racism or bullying when it appears.

We did not find evidence of the moderating effect when predicting children's ingroup prosocial behaviors (i.e., prosociality toward White peers). Nonetheless, the main effects of

nurturant and restrictive parenting were rather stable, with or without considering children's moral emotions (albeit the nonsignificant prediction from nurturant parenting). The lack of moderation of children's empathic anger toward White peers might support the distinctive motivations for assisting ingroup and outgroup members. That is, in contrast to the motives of helping outgroup members, the motivation for helping ingroup members might stem from the desire to maintain and promote the relationship between the individual and the ingroup recipients (i.e., the relational approach of prosocial behaviors; Lewis, 2014; Padilla-Walker et al., 2016). Moreover, when helping ingroup members, the connected social identity between the helper and recipient might make it easier for children to act in ways consistent with internalized parental messages and thus exhibit prosocial behaviors.

Lastly, child age was positively related to children's prosocial behaviors to both Black peers and White peers after controlling for parenting, moral concerns, and other demographic information. This finding is consistent with the bulk of the relevant findings (Eisenberg et al., 2015). With children's cognitive development, they acquire mature perspective-taking and prosocial moral reasoning capacities that are expected to promote children's prosocial development (Carlo, 2014). Research has also identified early childhood children develop the sense of fairness (Blake et al., 2014; Killen et al., 2018), and children develop more comprehensive understanding of social norms and rules with age (Grueneisen & Tomasello, 2019; Nobes & Pawson, 2003), both of which might motivate them to distribute resources equally to exhibit socially desirable behaviors.

Limitations

Our study has several limitations. First, the cross-sectional nature of the study limits our ability to test possible causal relations among parental behaviors, children's emotional responses, and prosocial behaviors. Longitudinal studies are warranted to better understand the sequential and reciprocal associations between these concepts. Furthermore, our participants came primarily from families with higher parental education level and family income and the majority of the primary parents included in this study were mothers, but existing research has established the predictive roles of other socialization agents (e.g., fathers, teachers) or contexts (e.g., parents' dyadic coping) in young children's prosocial behaviors (e.g., Daniel et al., 2016; Ferreira et al., 2016; Zemp et al., 2016). Relatedly, relative to chocolate coins and glow-in-the-dark stars, our participating children may have less familiarity with money, which might have reduced the validity of findings related to money distribution. Finally, age differences might exist in the examined associations as children develop racial prejudice with age (Nesdale, 2004), and there could be other factors (e.g., children's explicit racial attitudes) that moderate the hypothesized associations. To better understand the related factors and developmental trajectories of children's prosocial behaviors to diverse others, replications that include larger age ranges of participants with diverse SES, various socialization agents, and measures that capture other aspects of children's racial and ethnical related feelings and attitudes are needed.

Implications

Despite the limitations, our study is among the initial efforts to understand the role of parenting behaviors and White young children's moral emotions in predicting children's prosocial behaviors to Black peers and White peers. Based on the recipients of prosocial behaviors, parenting practices were related to children's prosocial behaviors in different ways. For children who feel

less empathic anger toward the victimized outgroup, nurturant parenting may promote, whereas restrictive parenting may hinder, children's generosity toward outgroup members. Given our participants are homogeneous families from White populations, our findings have important implications to decrease injustice and inequity between social dominant (i.e., White) and marginalized populations through parenting practices. To foster children's prosocial behaviors toward marginalized peers, parents from privileged groups should be aware that restrictive and controlling parenting might impede children's desire to help marginalized others, whereas engaging in nurturant parenting, particularly when children do not spontaneously feel high levels of concern for diverse others, appears to promote children's willingness to act prosocially.

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ENDNOTES

- ¹ We did a confirmatory factorial analysis (CFA) to examine whether the items in the warmth and reasoning subscales loaded on one factor, and whether the items in the directiveness and punitiveness subscales loaded on another factor. The results showed that all items had significant loadings (i.e., standardized factor loading larger than .3) on corresponding factors, and the factors were negatively correlated ($r = -.47$). Model fit indices indicated this CFA model showed acceptable model fit, $\chi^2(337) = 585.44, p < .001$, root-mean-square error of approximation = .06, with 90% confidence interval [.05, .07], comparative fit index = .84, and standardized root-mean-square residual = .08. We also computed Cronbach's alphas for the two parenting composites by using all items from the corresponding parenting subdimension; the reliabilities for nurturant and restrictive parenting composites were .88 and .78, respectively.
- ² The perpetrators and victims across the videos were performed by different actors. All actors were strangers to the participating children.
- ³ Among the 190 participants, 17 children had siblings that also participated in the study. We conducted another set of analyses with one sibling randomly removed from analyses. We also conducted another set of analyses with mothers only, and the results of both sets of models did not differ from the results that included all the participants. Thus, we presented the results with the full sample to retain more statistical power.
- ⁴ We conducted additional analyses using the different prosocial behaviors as separate outcomes in path models (i.e., chocolate, star, and money sharing to Black peers were used as different outcome variables in the same model; chocolate, star, and money sharing to White peers were used as different outcome variables in another model). The results were similar with the findings using the prosocial behaviors composite, except that there was one additional interaction between parental restrictive parenting and children's empathic anger to predict children's chocolate sharing toward White targets. Given we did not have specific hypotheses about how these tasks vary meaningfully and given the very similar pattern of findings, we presented the results using the composite prosocial score for parsimony and ease of interpretation.
- ⁵ We also examined the relations after controlling for one form of racial attitudes measured by children's reports of social inclusion toward Black peers and White peers (i.e., how much they would be interested in sitting with, playing with, or how much they liked the victims in the films; see Spinrad et al., 2023), and all findings remained.

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