

Parental Racial Socialization as a Moderator of the Effects of Racial Discrimination on Educational Success Among African American Adolescents

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This study investigated whether parental racial socialization practices moderated the relation between racial discrimination in school and adolescents' educational outcomes. Using data from a longitudinal study of an economically diverse sample of 630 African American adolescents (mean age = 14.5) from a major East Coast metropolis, the results revealed that cultural socialization attenuated the effect of teacher discrimination on grade point average (GPA) and educational aspirations, as well as the effect of peer discrimination on GPA. Also, preparation for bias and cultural socialization interacted to make unique contributions to African American adolescents' educational outcomes. Finally, there was some evidence that teacher discrimination was more detrimental to the academic engagement of African American males than females. Implications for research and practice are discussed.

Many minority youth are cognizant of the systematic biases and injustices that are related to their racial group membership (Spencer, Cunningham, & Swanson, 1995), and it is probable that experiences with discrimination occurring within schools have adverse effects on these adolescents' developmental outcomes, particularly for African American males (Chavous, Rivas-Drake, Smalls, Griffin, & Cogburn, 2008; Greene, Way, & Pahl, 2006; Wong, Eccles, & Sameroff, 2003). Although the effects of racial discrimination on psychological outcomes of African Americans have been well documented, relatively less research has examined how daily experiences with racial discrimination in the school context are related to their educational prospects. Extant research on adolescents has also suggested that the correlates of discrimination by adults in school may differ from those associated with discrimination by school peers (Fisher, Wallace, & Fenton, 2000; Phelan, Yu, & Davidson, 1994), yet empirically this type of distinction has rarely been explored in the school context.

In related research, due to the unique developmental demands posed by the sociohistorical positioning of African Americans, many theorists have

advocated for parental racial socialization in promoting African American adolescents' social and educational outcomes. Indeed, such assertions seem justified because parental racial socialization practices have been shown to be beneficial to the mental health of African American youth (Caughy, O'Campo, Randolph, & Nickerson, 2002; Constantine & Blackmon, 2002; Fischer & Shaw, 1999; McHale et al., 2006; Scott, 2004). There is less empirical support, however, for the notion that greater racial socialization from parents may yield better educational outcomes (Bowman & Howard, 1985; Cooper & Smalls, 2010; Smalls, 2009; Smith, Atkins, & Connell, 2003). Moreover, very few studies have considered whether racial socialization moderates the negative impact of racial discrimination on African American adolescents' academic development (Dotterer, McHale, & Crouter, 2009; Neblett, Philip, Cogburn, & Sellers, 2006; Phinney & Chavira, 1995; Thomas, Coard, Stevenson, Bentley, & Zamel, 2009).

In response to these gaps in the literature, the present study aims to understand how African American adolescents' discrimination experiences in schools—from both adults and peers—relate to

A special thanks to Scott Seider and Esohe Osai for their comments on an early version of this manuscript.

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DOI: 10.1111/j.1467-8624.2012.01808.x

four critical educational outcomes: *academic performance, educational aspirations, school identification, and cognitive engagement*. The rationale for the current study is presented in three phases. First we discuss how racial discrimination in schools relates to the educational outcomes for African American adolescents. Second, we examine how these achievement outcomes are affected by racialized parental socialization practices. Finally, we examine whether racial socialization practices may moderate the effect of discrimination on educational outcomes.

Racial Discrimination and the Educational Outcomes of African Americans

Many scholars have suggested that racial discrimination by adults in schools leads to institutionalized disparities in educational opportunities that work against African Americans, including being disproportionately placed in lower academic tracks, being subjected to less capable instruction, and receiving lower expectations from teachers (Ferguson, 2007; Orfield & Losen, 2002; Wang & Eccles, 2012a). These systematic opportunity disadvantages have in turn been thought to be major contributors to disparities in educational outcomes (Diamond & Huguley, 2011; García Coll et al., 1996; Spencer, 1999). In addition to institutional barriers, research also demonstrates that African Americans often face various instances of personal racial discrimination experiences in school (Greene et al., 2006; Rivas-Drake, Hughes, & Way, 2009; Wang & Eccles, 2012b). Fisher et al. (2000) have indicated that anywhere from one fourth to one half of African American adolescents report that they have been either discouraged from joining advanced level courses, unfairly disciplined, or have received lower than deserved grades from adults in school because of their race. Research has also shown that African American males seem to be particularly at risk for such unfair treatment. Chavous et al. (2008) found that high school African American males report more discrimination experiences from teachers than do females, while other studies have demonstrated that African American males receive less positive feedback from teachers at multiple school levels (Noguera, 2008; Roderick, 2003).

These instances of discrimination by adults in school are concerning given the negative psychological (Cunningham & Meunier, 2004; Fischer & Shaw, 1999; Swanson, Cunningham, & Spencer, 2003) and educational outcomes (Brown & Jones, 2004; Carter, 2005; Chavous et al., 2008; Dotterer et al., 2009; Neblett et al., 2006; Smalls, White,

Chavous, & Sellers, 2007; Wang, Willett, & Eccles, 2011) associated with adolescents' perception of discrimination experiences. Fisher et al. (2000), for example, asserted that experiences with racial discrimination in educational contexts are associated with psychological distress among high school students, while Neblett et al. (2006) found that discrimination is negatively associated with students' grades. Moreover, studies have found that for African American males, these types of racialized social conditions often elicit uniquely reactive behaviors (Cunningham, 1999; García Coll et al., 1996; Spencer, 1999). For instance, Swanson et al. (2003) reported that negative racial experiences and lower expectations from teachers predict bravado attitudes in African American males—attitudes that tend to be associated with negative outcomes in both social and academic domains. Thus, discrimination from adults in schools has the dual effect of both reducing educational opportunities and creating psychological distress for African American youth—males in particular (Thomas et al., 2009). Ultimately, these experiences aggravate and undermine the educational endeavor by negatively affecting the academic outcomes of the targeted students.

There are reasons to be concerned with peer discrimination experiences as well. Feelings of support and acceptance from peers fulfill adolescents' need for relatedness and also promote their motivation, engagement, and achievement in school (Wang, 2009; Wang & Holcombe, 2010). Conversely, experiences with discrimination from peers have been shown to be negatively related to adolescent self-esteem (Fisher et al., 2000), school importance (Chavous et al., 2008), and regard for one's own racial group (Rivas-Drake et al., 2009). These peer discrimination effects also seem to demonstrate some nuanced gender differences. Cunningham and Meunier (2004) found that for African American males specifically, both discomfort and feelings of alienation from peers were related to the development of bravado attitudes. Meanwhile, Chavous et al. (2008) found that discrimination from peers was associated with lower academic self-concepts for African American females, but not males.

On the whole, there is compelling research suggesting that discrimination from adults in school hinders African American student achievement, both directly by limiting academic opportunities, and indirectly through effects on educational engagement and psychological distress. Additionally, while only a few studies have considered peer discrimination independent of adult discrimination

in schools, the available evidence suggests that peer and adult discrimination in schools make unique contributions to the educational outcomes of African American adolescents. Finally, while only slight differences by gender in the effects of peer discrimination have been found, African American males may still be at particular risk for negative outcomes when facing discrimination from adults in schools.

Racial Socialization and Educational Outcomes of African Americans

African American parents have been shown to employ racial socialization practices in response to the racialized contexts in which their children develop (Bowman & Howard, 1985; Hughes et al., 2006; Perry, 2003; Stevenson, Reed, Bodison, & Bishop, 1997; Ward, 1996). Such practices can generally be understood as the transmission of messages relating to how one perceives and interacts with his or her own and other racial groups (Brown & Krishnakumar, 2007). Research suggests that the most commonly transmitted racial socialization messages by African American parents are those regarding "cultural socialization," which are meant to instill racial pride and knowledge, and "preparation for bias," which seek to prepare youth for encountering racial barriers and biases in society (Hughes et al., 2006). Across studies, estimations of the commonality of these two types of practices have been as high as in 91% and 88% of African American family units, respectively (Hughes, 2003).

To date, cultural socialization and preparation for bias have generally been associated with positive mental health outcomes (Caughy et al., 2002; Constantine & Blackmon, 2002; Fischer & Shaw, 1999; McHale et al., 2006; Stevenson, Herrero-Taylor, Cameron, & Davis, 2002; Thomas et al., 2009). While only a few studies have examined the impact of racial socialization on educational outcomes for African American youth, the findings show positive effects for cultural socialization messages and mixed results for preparation for bias. Specifically, cultural socialization messages have been associated with greater classroom and school engagement (Cooper & Smalls, 2010; Smalls, 2009), higher grades and academic skills (Caughy et al., 2002; Smith et al., 2003), and more overt academic self-presentations (Murry, Berkel, Brody, Miller, & Chen, 2009). In some studies, preparation for bias has also been associated with positive outcomes such as higher grades (Bowman & Howard, 1985), more overt academic self-presentations (Murry et al., 2009), and increased academic engagement in

the context of more democratic parenting (Smalls, 2009). In other research, however, it has also been associated with negative outcomes, including poor school performance (Marshall, 1995; Smith et al., 2003) and lower school engagement in less democratic parenting contexts (Smalls, 2009). Furthermore, some studies have found no relation between preparation for bias and academic outcomes (Constantine & Blackmon, 2002; Neblett et al., 2006).

It is possible that the discrepant findings across these studies may be attributable to differences in sample ages, as both Marshall (1995) and Smith et al. (2003) considered elementary school samples, while Bowman and Howard (1985) considered youth who were at least 14 years old. Additionally, both the Constantine and Blackmon (2002) null finding and the Smalls (2009) conditional finding were derived using exclusively middle school participants, as was nearly 70% of the Neblett et al. (2006) sample. It is conceivable then that preparation for bias may have more negative academic consequences for younger children and more positive results for older adolescents.

There also seem to be gender differences in how parental racial socialization influences educational outcomes. Brown, Livner, Evans, and DeGennaro (2009) and Dotterer et al. (2009) found results suggesting that the educational benefits of cultural socialization on African American adolescents were largely attributable to its effects on boys. Similarly, Caughy et al. (2002) and Thomas et al. (2009) found that racial socialization is associated with fewer school behavior problems specifically for African American males among preschool and secondary school-age youth, respectively. Moreover, Caughy et al. found that more Afrocentric home environments are associated with greater factual knowledge for boys, but not for girls. Only one study that considered gender explicitly, Murry et al. (2009), found no gender differences in the relation between racial socialization and academic outcomes, although they examined rural 11-year-old African Americans specifically.

Overall, of the two most common racial socialization practices, cultural socialization is generally associated with positive educational outcomes, while preparation for bias has produced mixed results. Extant studies also have suggested that findings regarding positive benefits of racial socialization on academic outcomes may be attributable to its effects on males, although only a few studies have explicitly considered gender differences in racial socialization effects on educational outcomes.

Racial Socialization as a Buffer for the Effects of Discrimination Experiences

A few studies have considered whether parental racial socialization practices moderate the deleterious effects of discrimination on the developmental outcomes of African American youth. There is some suggestion that racial socialization may attenuate the effects of discrimination experiences on anger expression (Thomas et al., 2009), self-esteem (Harris-Britt, Valrie, Kurtz-Costes, & Rowley, 2007), problem behaviors (Neblett et al. 2006), and psychological well-being (Fischer & Shaw, 1999). Regarding academic outcomes, only two such studies have been conducted, and both Dotterer et al. (2009) and Neblett et al. (2006) found no buffering effects for racial socialization of any kind with respect to the relation between discrimination experiences' effects on academic outcomes. It should be noted, however, that Dotterer et al.'s sample consisted only of working- and middle-class two-parent families (mean family income \$90,000), and Neblett et al. studied mostly middle school students in a single Midwestern district. Thus, the potential for racial socialization in this moderating role merits further examination, particularly studies that consider gender and that utilize samples from underexplored social contexts.

The Current Study

The objective of the present study was to examine whether the effects of racial discrimination experiences in school on the educational outcomes of African American youth are moderated by parental racial socialization practices. Four educational outcome indicators, representing both directly measured achievement and established achievement-related attitudes or behaviors, are considered: grade point average (GPA), educational aspirations, school identification, and cognitive engagement (Miserandino, 1996; Sewell & Shah, 1967; Wang & Holcombe, 2010). Within this objective, we have four specific goals. First, we investigate how youth's experiences of racial discrimination in schools from two distinct sources, teachers and peers, are differentially associated with these educational indicators. We hypothesize that youth who have experienced discrimination from either source will exhibit diminished educational outcomes. Second, we examine associations between two essential dimensions of racial socialization, cultural socialization and preparation for bias, and our educational outcomes. We hypothe-

size that both cultural socialization and preparation for bias will be positively associated with these pro-achievement indicators. Third, we examine whether cultural socialization and preparation for bias independently buffer African American adolescents from the effects of school discrimination on educational outcomes. We hypothesize that in our sample both cultural socialization and preparation for bias messages will attenuate the associations between perceived school-based racial discrimination and educational outcomes. Finally, we consider whether racial socialization moderates the association between racial discrimination and educational outcomes differently for boys and girls. We hypothesize that the moderation effects of both racial socialization practices will benefit both groups. We should also note that as research shows that cultural socialization and preparation for bias are often employed simultaneously by parents (Neblett, Smalls, Ford, Nguyen, & Sellers, 2009), as an exploratory consideration we investigate whether these practices interact with each other to influence educational outcomes.

Method

Participants

The study sample comes from the Adolescent Development in Context Study, an ongoing longitudinal study of a racially diverse and urban county on the East Coast of the United States. In this study, we examined two waves of data: Wave 3, collected when all the adolescents were making the transition from 8th to 9th grade (mean age = 14.5 years), and Wave 4, collected when most of the adolescents were in 11th grade (mean age = 17.4 years). Wave 3 data were used as statistical controls for prior achievement and engagement levels in the analysis of Wave 4 outcomes. The investigators used a mixture of self-administered questionnaires, face-to-face interviews, and telephone interviews to collect the data. The present study also used school records and reports from the target youth and the primary caregiver, who was most often the youth's mother.

Only youth who participated in both waves of data collection were included in this study. The final sample for the present study included 332 African American males and 298 African American females ($N = 630$) with complete data for all study variables in both waves. This sample represents 75% of the African American respondents. Additionally, this sample includes substantial

representation from a wide range of parental income and educational levels, thus making it well suited for assessing the independent impacts of family income, educational attainment, and racial group membership on development. The median income range for the African American adolescents' families was \$45,000–\$49,999. Also, 54% of the primary caregivers had received a high school diploma and 40% of them had obtained a college degree. The racial composition of the schools was approximately 65% African American students, 30% European American students, and 5% other racial minority students. Adolescents with complete data did not differ from youth without complete data on racial discrimination and socialization indicators, educational outcome variables, and demographic characteristics at Wave 1.

Procedures

Study participants were recruited through letters to their families, and those families interested in participating in the study were asked to sign and return a consent form. Subsequently, a face-to-face interview was conducted with each of the adolescents, and a self-administered questionnaire was collected from their primary caregivers for both Waves 3 and 4. This data collection process took place in the home, with the race of the interviewers—primarily women with bachelor's degrees—matching the race of the adolescents. The face-to-face interviews took approximately 1 hr, and the self-administered questionnaire took approximately 30 min to complete. Target adolescents received \$35 for their participation at each wave.

Measures

Academic achievement. GPA was derived from school records to be used as an indicator of academic achievement. First school transcripts from 9th to 11th grade were used to determine grades in the core academic subjects (English, math, science, and social studies). Then letter grades were converted into a 5-point scale (A = 5, B = 4, C = 3, D = 2, Failing = 1), and the scores of the four core subjects were averaged to create the GPA measure.

Educational aspirations. Adolescents' self-reported educational aspirations were measured in 9th and 11th grades by one item commonly used in national surveys: "If you could do exactly what you wanted, how far would you like to go in school?" The question was rated along a 9-point scale with anchors

ranging from a low of 9–11 grade to a high of Ph.D. or a medical doctor's degree.

School identification. Students' responses to items from the Michigan Study of Adolescent Life Transitions (MSALT; Eccles et al., 1993) and the Philadelphia Study (Furstenberg, 1992) were used to determine their sense of school belonging and valuing of education in 9th and 11th grades. The two constructs were combined into a single scale by taking the mean of seven items that ask students to rate their feelings about school, the degree to which they feel part of their school, and the degree to which they feel it is important to go to school (e.g., "I feel that I belong to this school"; "Getting a good education is the best way to get ahead in life for the kids in my neighborhood"; "I have to do well in school if I want to be a success in life"). The item responses ranged from 1 = *strongly disagree* to 5 = *strongly agree* (α s = .86 and .84 for 9th and 11th grades, respectively). The school identification measure has been shown to be both reliable and valid in prior research (Eccles, Early, Frasier, Belansky, & McCarthy, 1997; Roeser, Eccles, & Sameroff, 1998; Wang et al., 2011).

Cognitive engagement. This construct represents adolescents' self-regulation and initiative-taking in learning. It is derived from six items from the MSALT study (Eccles et al., 1993) measuring adolescents' own perceptions of their ability to self-monitor on academic tasks, to evaluate their own performances, and to initiate strategic approaches to learning. Sample items are "How often are you very good at carrying out the plans you make for solving academic problems?" and "How often do you try to relate what you are studying to other things you know about?" Item responses for the scale ranged from 1 (*almost never*) to 5 (*almost always*). A mean score was created by averaging across the items (α s = .81 and .83 for 9th and 11th grades, respectively).

Racial discrimination. Adolescents' perceptions of racial discrimination at school in 9th grade were assessed using the School Discrimination Scale (see Eccles, Wong, & Peck, 2006; Wong et al., 2003). The measure consisted of two subscales. The teacher discrimination subscale included five items measuring students' perceptions of discrimination in class settings by teachers (e.g., how often students felt that their teachers called on them less, graded them more harshly, disciplined them more harshly, discouraged them from taking a class, and thought they were less smart because of their race). The peer discrimination subscale used three items to evaluate youth's perceptions of how often they

experienced negative peer treatment due to their race (e.g., getting into fights, being picked on, and not being selected for teams or activities because of their race). Responses for items in both subscales were on a 5-point scale ranging from 1 = *never* to 5 = *everyday*. Cronbach's alpha indicated high reliability for each subscale (α s = .85 and .87 for teacher and peer subscales, respectively).

Parental racial socialization. The cultural socialization and preparation for bias subscales of the parent questionnaire were used to capture parental racial socialization in 9th grade. The cultural socialization subscale included four items that asked *parents* to indicate how often they talk to children or engage in activities with them that promote feelings of racial knowledge, pride, and connection (e.g., "How often do you tell your children that they should be proud to be the race or ethnicity they are?"). Preparation for bias was assessed with five items that asked parents how often they communicated preparation for racial bias (e.g., "How often have you told your children that some people may treat them badly or unfairly because of their race or ethnicity?"). Responses for both subscales were on a 5-point scale ranging from 1 = *never* to 5 = *very often*, and both of them indicated high reliability (α s = .81 and .82 for cultural socialization and preparation for bias subscales, respectively).

Covariates. Sociodemographic characteristics of the participating adolescents, their families and schools were used as statistical controls. These measures included adolescents' gender (0 = girl, 1 = boy) and socioeconomic status (SES) as determined by two factors: the primary caregiver's reporting of educational level (in years) and the primary caregiver's reporting of total family income before taxes. We standardized and added the parents' education and annual family income to create a composite measure of SES, ranging from 1 (*low*) to 10 (*high*; $M = 5.04$, $SD = 0.62$, $\alpha = .78$). Additionally, we calculated school racial compositions using Simpson's (1949) index of diversity. This index of diversity accounts for both the relative proportion of each racial group in the school and the number of racial groups represented within the school (majority racial or ethnic group vs. minority racial or ethnic group). The value ranges from 0 to 1, with higher scores on the diversity index reflecting greater racial diversity within the school. The scores in our sample range from 0.05 to 0.39 ($M = 0.28$, $SD = 0.12$), which suggests low to moderate diversity within the schools. Finally, students' prior school achievement and engagement were

included as covariates, including GPA, educational aspirations, school identification, and cognitive engagement at 9th grade.

Analytic Strategies

For each educational outcome of interest, we examined two hierarchical regression models, using the .05 alpha level as a standard for significance testing. At Step 1, we entered demographic background variables, students' prior educational outcomes from 9th grade, racial discrimination variables, and racial socialization variables. At Step 2, we considered the interaction terms of interest: Discrimination \times Cultural Socialization, Discrimination \times Preparation for Bias, and Cultural Socialization \times Preparation for Bias. Additionally, we also tested two-way interactions examining whether the influences of racial discrimination and racial socialization differed by gender for each model. None of the two-way gender interaction coefficients were significant or added significantly to the variance explained in outcome variables, with the exception of one model (the effect of teacher discrimination on cognitive engagement differed by gender). Thus, we omitted these terms from the final results and kept the model with significant interaction coefficient displayed in Table 3. We centered all variables involved in the interaction terms and used methods outlined by Aiken and West (1991) to estimate predicted means when the interaction terms were significant. For each significant interaction, we used plots to illustrate the simple slope of the outcome variable estimated at selected conditional values (1 *SD* below and above the mean) of racial socialization and discrimination variables. Because of the potential for multicollinearity due to the high correlation between teacher and peer discrimination, as well as the conceptual relevance of distinguishing influences of teacher and peer racial discrimination (Fisher et al., 2000; Wong et al., 2003), we tested separate regression models for each discrimination type.

Results

Means, standard deviations, and intercorrelations for all the main study variables are presented in Table 1. Regarding educational outcomes, girls had significantly higher GPAs and educational aspirations at 11th grade than did boys, while boys were higher in cognitive engagement. Boys and girls, however, did not differ significantly in school

Table 1
Means, Standard Deviations, and Intercorrelations Among Primary Study Variables

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Teacher discrimination	—										
2. Peer discrimination	.68***	—									
3. Cultural socialization	.02	-.04	—								
4. Preparation for bias	.04	.02	.43***	—							
5. GPA	-.14**	-.08	.14**	.05	—						
6. Educational aspirations	-.14**	-.04	.18***	.06	.29***	—					
7. School identification	-.25***	-.19***	.06	.15*	.19***	.13**	—				
8. Cognitive Engagement	-.14**	-.12**	.10*	.12*	.12*	.20***	.19***	—			
9. SES	-.03	.01	.07	.03	-.03	.05	.01	.06	—		
10. School diversity	.06	.10*	.02	.04	.07	.04	-.02	.03	.09*	—	
11. Male	.16***	.18***	-.04	.03	-.15**	-.20***	-.06	.11*	.09*	.09*	—
Overall M (SD)	1.72 (0.89)	1.50 (0.82)	3.10 (0.89)	3.15 (1.39)	3.04 (0.96)	5.69 (1.58)	2.66 (0.75)	3.99 (0.67)	5.04 (0.28)	.62 (0.12)	.53 (0.15)
Female's M (SD)	1.57 (0.84)	1.34 (0.68)	3.13 (0.86)	3.10 (1.34)	3.19 (0.93)	5.99 (1.44)	2.71 (0.73)	3.92 (0.66)	—	—	—
Male's M (SD)	1.84 (0.90)	1.63 (0.89)	3.06 (0.91)	3.18 (1.43)	2.91 (0.95)	5.40 (1.63)	2.62 (0.76)	4.06 (0.67)	—	—	—

* $p < .05$. ** $p < .01$. *** $p < .001$.

identification. Consistent with previous research, boys reported more teacher and peer discrimination in 9th grade (Chavous et al., 2008; Roderick, 2003; Simpson & Erickson, 1983). Also, it is worth noting that both boys and girls report experiencing more frequent teacher discrimination than peer discrimination. We did not find gender differences in parents' racial socialization practices with 9th grade students.

Cultural socialization and preparation for bias were positively and highly correlated with each other, but had unique relations with the other variables. Cultural socialization from parents was positively associated with all educational outcome variables except school identification. Preparation for bias was positively correlated with school identification and cognitive engagement, but not with GPA or educational aspirations. Preparation for bias also was not correlated with teacher or peer discrimination. Teacher discrimination meanwhile was negatively associated with all educational outcome variables, but higher peer discrimination was associated with only lower school identification and cognitive engagement.

Teacher Discrimination, Racial Socialization, and Educational Outcomes

Academic achievement. Results for each indicator of educational outcomes are presented in Table 2. The Step 1 regression model for GPA was statistically significant and accounted for 20% of the variance in GPA, $F(6, 358) = 8.19, p < .001$. Results show that after accounting for the influences of background variables, teacher discrimination was negatively related to GPA at 11th grade ($\beta = -.14, p < .01$) and parental cultural socialization was positively related to GPA ($\beta = .12, p < .05$). Adding the interaction variables at Step 2 increased the variance explained by 2% and resulted in a significant Teacher Discrimination \times Cultural Socialization interaction effect ($\beta = .42, p < .05$). As displayed in Figure 1a, results demonstrate a protective role of cultural socialization from parents, such that the negative relation between teacher discrimination and student GPA was markedly stronger among youth lower in cultural socialization (slope = $-.16, p < .001$), whereas this relation was an attenuated for youth who experience higher levels of cultural socialization (slope = $.06, p = .42$). Preparation for bias was unrelated to GPA, and there were no differential effects of teacher discrimination on GPA by gender.

Table 2
 Hierarchical Regressions of Teacher Discrimination and Racial Socialization on Educational Outcomes (n = 630)

Variable	GPA		Educational aspirations		School identification		Cognitive engagement	
	B (SE B)	β	B (SE B)	β	B (SE B)	β	B (SE B)	β
Step 1. Educational outcome in 9th grade	.34 (.06)	.31***	.42 (.05)	.38***	.23 (.06)	.19***	.30 (.04)	.31***
SES	-.03 (.10)	-.01	.26 (.15)	.08	.03 (.07)	.02	.06 (.07)	.04
School diversity	.05 (.08)	.03	.03 (.10)	.02	-.01 (.09)	-.01	.02 (.10)	.01
Male	-.03 (.10)	-.02	-.59 (.14)	-.19***	-.06 (.07)	-.04	.16 (.06)	.12*
Teacher discrimination (TD)	-.15 (.05)	-.14**	-.16 (.07)	-.10*	-.20 (.04)	-.23***	-.15 (.03)	-.16***
Cultural socialization (CS)	.13 (.05)	.12*	.27 (.09)	.15**	.02 (.04)	.02	.10 (.03)	.14***
Preparation for bias (PB)	.03 (.04)	.04	.04 (.06)	.03	.15 (.03)	.12***	-.04 (.02)	-.08
Step 2. Educational outcome in 9th grade	.34 (.06)	.31***	.42 (.05)	.38***	.23 (.06)	.18***	.30 (.04)	.32***
SES	-.06 (.10)	-.03	.23 (.15)	.07	.03 (.07)	.02	.05 (.07)	.04
School diversity	.04 (.08)	.02	.02 (.10)	.01	-.01 (.09)	-.01	.01 (.10)	.01
Male	-.03 (.10)	-.01	-.58 (.14)	-.18***	-.06 (.07)	-.04	.16 (.06)	.12*
TD	-.52 (.22)	-.47*	-.50 (.35)	-.26	-.09 (.15)	-.09	-.28 (.15)	-.20*
CS	-.07 (.16)	-.06	.28 (.25)	.21	.14 (.12)	.15	.23 (.11)	.18*
PB	.07 (.14)	.10	-.20 (.21)	-.27	.11 (.11)	.19	.07 (.09)	.14
TD \times CS	.15 (.06)	.42*	.14 (.07)	.31*	.03 (.06)	.10	.04 (.05)	.15
TD \times PB	-.01 (.04)	-.04	.01 (.06)	.01	-.02 (.03)	-.01	.02 (.03)	.07
CS \times PB	.04 (.03)	.07	.14 (.06)	.35*	.16 (.03)	.29***	.04 (.04)	.06
TD \times Male	.02 (.05)	.05	.01 (.06)	.02	-.05 (.06)	-.07	-.15 (.07)	-.24*

* $p < .05$. ** $p < .01$. *** $p < .001$.

Educational aspirations. The Step 1 regression model for educational aspirations was significant and accounted for 28% of the variance in this outcome, $F(6, 475) = 21.71, p < .001$. Similar to the results for GPA, higher levels of teacher discrimination predicted lower levels of educational aspirations ($\beta = -.10, p < .05$), while more cultural socialization from parents predicted higher educational aspirations ($\beta = .15, p < .01$). Also, preparation for bias did not predict educational aspirations. Adding the interaction variables increased the explained variance to 31%. Consistent with our expectation about the buffering effect of cultural socialization ($\beta = .31, p < .01$), teacher discrimination showed a stronger negative relation with educational aspirations for youth lower in cultural socialization (slope = $-.12, p < .001$), relative to youth higher in cultural socialization (slope = $.03, p = .49$; see Figure 1b). Additionally, the Cultural Socialization \times Preparation for Bias interaction was significant ($\beta = .35, p < .05$), suggesting that the positive association between preparation for bias and educational aspirations was more pronounced for adolescents receiving more cultural socialization from parents (slope = $.19, p < .001$), relative to those who receive fewer messages about cultural socialization

from parents (slope = $.03, p = .51$; see Figure 1c). There were no significant interactions between teacher discrimination and gender, suggesting that gender did not differentiate how teacher discrimination related to educational aspirations.

School identification. The Step 1 model of school identification was significant and accounted for 19% of the variance in the outcome, $F(6, 462) = 7.52, p < .001$. As with the previous educational outcomes, teacher discrimination was negatively related to school identification ($\beta = -.23, p < .001$). In this case, however, the main effect of preparation for bias was a significant positive predictor of school identification ($\beta = .12, p < .001$), while cultural socialization was not. Adding the interaction variables at Step 2 increased the variance explained by 2%, and here again the Cultural Socialization \times Preparation for Bias interaction was significant ($\beta = .29, p < .001$), indicating that the positive association between preparation for bias and school identification was stronger for youth higher in cultural socialization (slope = $.20, p < .001$) as compared to those lower in cultural socialization (slope = $.13, p < .01$; Figure 1d). Neither preparation for bias nor cultural socialization experiences, however, attenuated teacher discrimination's negative

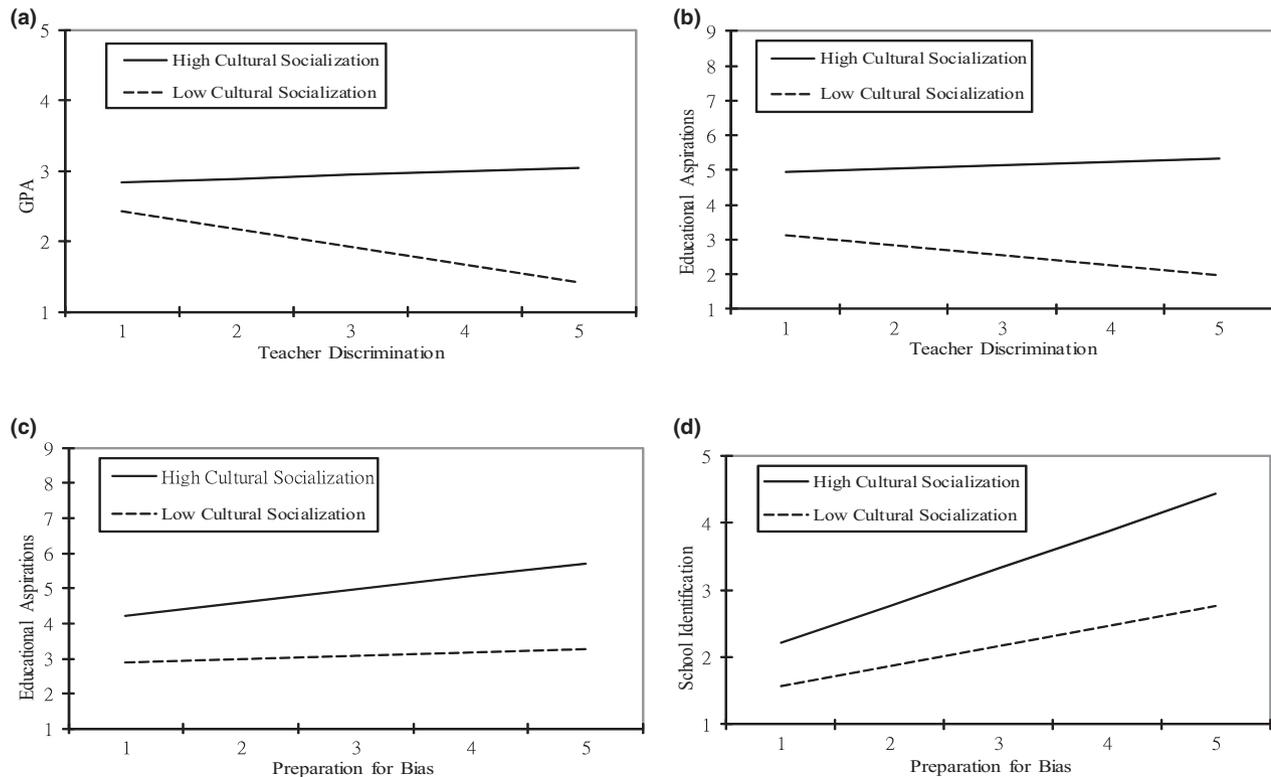


Figure 1. (a) The relation between teacher discrimination and GPA for adolescents varying in cultural socialization. (b) The relation between teacher discrimination and educational aspirations for adolescents varying in cultural socialization. (c) The relation between cultural socialization and educational aspirations for adolescents varying in preparation for bias. (d) The relation between preparation for bias and school identification for adolescents varying in cultural socialization.

relation with school identification. There were also no differential effects of teacher discrimination on school identification by gender.

Cognitive engagement. The Step 1 model for cognitive engagement was significant, $F(6, 462) = 23.14, p < .001$, and explained 20% of the variance in the outcome. As with all the previous educational outcomes, teacher discrimination was negatively associated with cognitive engagement ($\beta = -.16, p < .001$). Also, as with the relations with GPA and educational aspirations, higher cultural socialization related to higher cognitive engagement ($\beta = .14, p < .001$). Preparation for bias, however, did not predict cognitive engagement. The addition of these interaction terms did not contribute significantly to the variance explained, and no significant interactions were found between teacher discrimination and the racial socialization variables. There was, however, a significant Teacher Discrimination \times Gender interaction ($\beta = -.24, p < .05$), suggesting that teacher discrimination has a stronger negative effect on the cognitive engagement behaviors of African American males than females.

Peer Discrimination, Racial Socialization, and Educational Outcomes

Academic achievement. Peer racial discrimination models are presented in Table 3. The Step 1 model for GPA was statistically significant and accounted for 17% of its variance, $F(6, 356) = 7.88, p < .001$. Consistent with the corresponding teacher discrimination model, cultural socialization predicted GPA ($\beta = .12, p < .05$) such that African American adolescents who experienced greater levels of cultural socialization also had higher GPAs. Preparation for bias again did not predict GPA. Also, unlike teacher discrimination experiences, however, peer discrimination experiences themselves were not related to differences in GPA. Adding the interaction variables increased the amount of variance explained to 19%, and the interaction term Peer Discrimination \times Cultural Socialization was statistically significant ($\beta = .39, p < .05$). Thus, while peer discrimination's main effect on GPA was not significant, as seen in Figure 2a, peer discrimination's trend toward a negative effect on GPA for youth with low levels of cultural socialization

Table 3
 Hierarchical Regressions of Peer Discrimination and Racial Socialization on Educational Outcomes (n = 630)

Variable	GPA		Educational aspirations		School identification		Cognitive engagement	
	B (SE B)	β	B (SE B)	β	B (SE B)	β	B (SE B)	β
Step 1. Educational outcome in 9th grade	.36 (.06)	.33***	.42 (.05)	.38***	.26 (.06)	.22***	.31 (.04)	.32***
SES	-.04 (.10)	-.02	.22 (.15)	.08	.04 (.07)	.02	.05 (.07)	.04
School diversity	.04 (.10)	.02	.03 (.11)	.02	-.02 (.09)	-.01	.03 (.09)	.01
Male	-.03 (.09)	-.02	-.59 (.14)	-.19***	-.06 (.07)	-.04	.15 (.06)	.11*
Peer discrimination (PD)	-.09 (.06)	-.07	.01 (.09)	.01	-.16 (.04)	-.17**	-.08 (.05)	-.09
Cultural socialization (CS)	.13 (.05)	.12*	.30 (.09)	.17***	.02 (.04)	.02	.09 (.04)	.12*
Preparation for bias (PB)	.02 (.04)	.03	.01 (.05)	.01	.05 (.03)	.09*	-.04 (.03)	-.08
Step 2. Educational outcome in 9th grade	.35 (.06)	.32***	.42 (.05)	.38***	.26 (.06)	.22***	.31 (.04)	.33***
SES	-.04 (.10)	-.02	.17 (.15)	.08	.03 (.07)	.02	.06 (.07)	.04
School diversity	.05 (.09)	.03	.02 (.10)	.01	-.03 (.08)	-.02	.03 (.12)	.02
Male	-.03 (.09)	-.12	-.58 (.14)	-.19***	-.06 (.07)	.02	.15 (.07)	.11*
PD	-.22 (.24)	-.17	-.32 (.36)	-.16	-.33 (.18)	-.14	-.11 (.15)	-.09
CS	.05 (.16)	.05	.40 (.19)	.28*	.06 (.12)	.06	.20 (.10)	.13*
PB	.15 (.14)	.21	.19 (.21)	.15	.15 (.10)	.18	.04 (.09)	.08
PD \times CS	.14 (.07)	.39*	.17 (.11)	.13	.04 (.06)	.13	.01 (.05)	.02
PD \times PB	-.10 (.06)	-.30	.03 (.07)	.06	-.02 (.03)	-.07	-.03 (.03)	-.11
CS \times PB	.01 (.04)	.05	.16 (.06)	.42*	.08 (.03)	.29*	.01 (.02)	.05

Note. There were no significant interactions by gender in the peer discrimination models, so the interaction terms are not presented here.

* $p < .05$. ** $p < .01$. *** $p < .001$.

(slope = $-.13$, $p < .001$) did not exist for youth with higher levels (slope = $.02$, $p = .61$). There is some evidence here then, that cultural socialization may attenuate negative effects of both peer discrimination and teacher discrimination on GPA. There were no differential relations by gender between peer discrimination and GPA.

Educational aspirations. The Step 1 model for education aspirations was statistically significant and accounted for 31% of the variance in this outcome, $F(6, 473) = 21.25$, $p < .001$. Consistent with the corresponding teacher discrimination model, cultural socialization was positively associated with educational aspirations ($\beta = .17$, $p < .001$), while preparation for bias was not a significant predictor. Unlike teacher discrimination, however, differences in peer discrimination did not predict differences in educational aspirations. The addition of interaction terms added only a small amount to the variance explained in the model, but a significant Cultural Socialization \times Preparation for Bias interaction emerged ($\beta = .42$, $p < .001$). Thus, for adolescents with higher cultural socialization, the positive effect of preparation for bias was more pronounced (slope = $.18$, $p < .001$) than for their counterparts with lower cultural socialization

(slope = $.03$, $p = .51$; see Figure 2b). There were no differential relations by gender between peer discrimination and educational aspirations.

School identification. The Step 1 model for school identification was statistically significant and accounted for 22% of its variance, $F(6, 460) = 6.40$, $p < .001$. Consistent with the results for the school identification on teacher discrimination model, peer discrimination showed a significant negative relation with school identification ($\beta = -.17$, $p < .001$). Also as with teacher discrimination, preparation for bias was again positively associated with school identification ($\beta = .09$, $p < .05$), while cultural socialization was not. The addition of interaction terms increased the amount of variance accounted for in the model by 3%, and the Cultural Socialization \times Preparation for Bias interaction effect was again significant ($\beta = .29$, $p < .05$). We see in Figure 2c that a positive effect of preparation for bias on school identification was stronger for youth with higher cultural socialization (slope = $.17$, $p < .001$) relative to those with lower cultural socialization (slope = $.10$, $p < .01$). There was no evidence of differential effects of peer discrimination on school identification by gender.

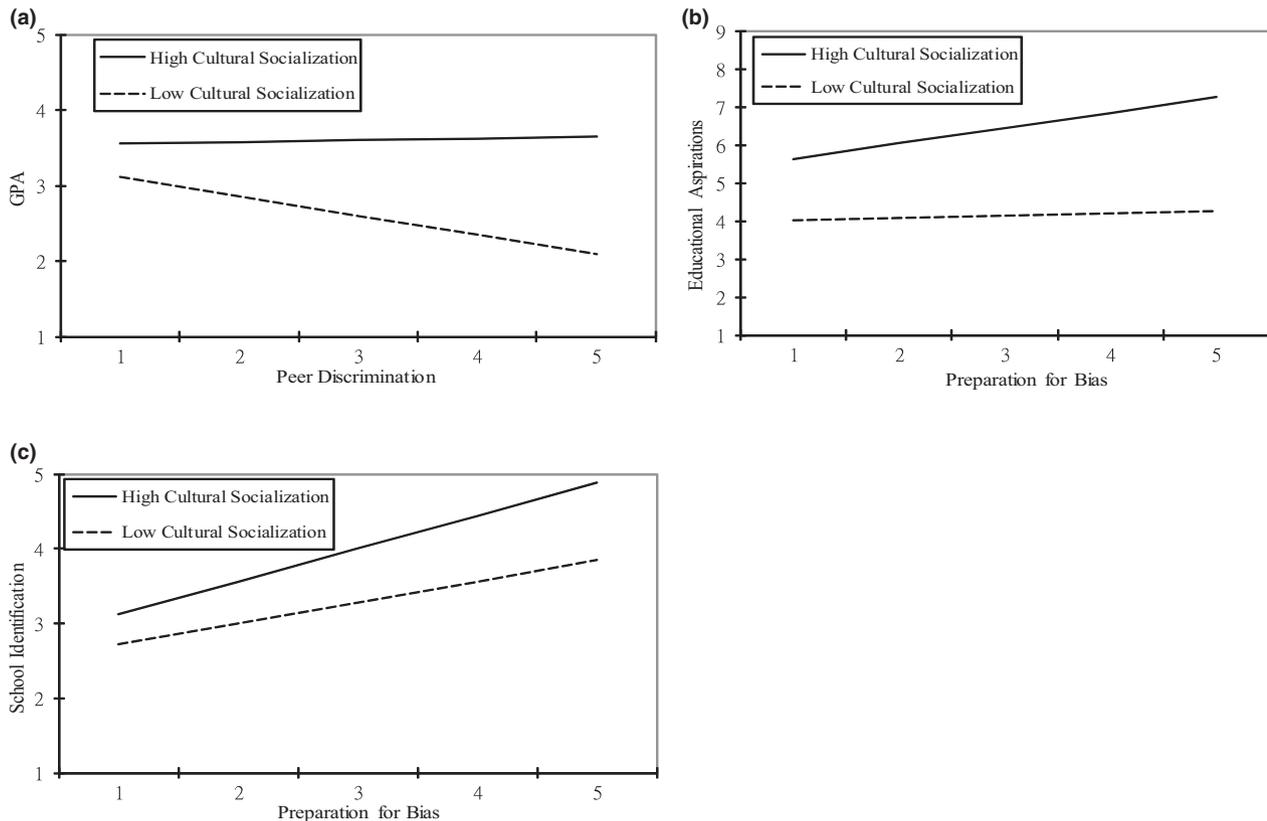


Figure 2. (a) The relation between peer discrimination and GPA for adolescents varying in cultural socialization. (b) The relation between preparation for bias and educational aspirations for adolescents varying in cultural socialization. (c) The relation between preparation for bias and school identification for adolescents varying in cultural socialization.

Cognitive engagement. The Step 1 cognitive engagement model was statistically significant and accounted for 31% of the variance in the outcome, $F(6, 470) = 11.10, p < .001$. Again, consistent with the teacher discrimination model, cultural socialization was a significant positive predictor of cognitive engagement ($\beta = .12, p < .05$), while preparation for bias was not. Unlike teacher discrimination, however, differences in peer discrimination did not predict differences in cognitive engagement. The Step 2 model produced no significant interactions, suggesting that neither gender nor racial socialization differentiated the way peer discrimination relates to cognitive engagement.

Discussion

The main purpose of this study was to investigate how racial discrimination in schools and parental racial socialization independently and jointly influence the academic development of African American adolescents. We were also concerned with

understanding how gender may influence the nature of these relations. Our results show that for African American adolescents, experiences of racial discrimination from teachers and peers in school are differentially linked to multiple educational outcomes, and there is modest evidence of some gender influence on these relations. Moreover, we found that certain messages about race or ethnicity from parents have important direct and moderating effects on academic outcomes.

Discrimination in Schools and Achievement

Our results suggest that teacher and peer discrimination in schools have distinct patterns of association with achievement outcomes. Teacher discrimination effects were pervasive—it was a negative predictor of all educational outcomes examined in the study. Peer discrimination effects were more targeted, only predicting school identification. Accordingly, our study suggests that teacher discrimination has more negative impact than peer discrimination on the academic outcomes of

African American youth. This pattern relates closely to what Carter (2005) suggests in her qualitative study of Black and Latino adolescents in urban schools, whereby biases against the cultural styles of African American students that were held by some school personnel contributed to students' academic disengagement. Indeed, that particular phenomenon could be one mechanism by which the effects demonstrated in the current study are operationalized.

Although peer discrimination was not as robust a predictor of educational outcomes as teacher discrimination, the negative effect of peer discrimination on school identification is an unsurprising, yet important finding. On the measure employed here, the indicators for peer discrimination—getting into fights, being picked on, and not being selected for teams or activities because of their race—are arguably more socially oriented than academically oriented. The peer indicators target social phenomena that occur in an academic setting, and not phenomena that are necessarily directly related to academic behaviors and attitudes. It is plausible, however, that peer discrimination is indirectly influential on educational outcomes through the mediator of diminished school identification. In fact, Conchas and Rodriguez (2008) found that connectedness and a sense of community are key ingredients in the academic engagement of African American students in particular. This exploration was beyond the scope of the current study but should be considered in future research. Additionally, because our sample was largely African American (70%), it is possible that racial discrimination from peers was a less prominent or less potent a predictor of outcomes than it might be in more mainstream secondary schools. Peer discrimination may have more robust effects on achievement in more integrated contexts, and in such circumstances racial socialization could in turn be a more important moderator of its effects.

Racial Socialization and Achievement

Consistent with prior studies (Caughy et al., 2002; Cooper & Smalls, 2010; Smalls, 2009; Smith et al., 2003), cultural socialization was found to be a direct, positive predictor of GPA, educational aspirations, and cognitive engagement. Preparation for bias was a less robust predictor of educational outcomes, but it was a direct, positive predictor of school identification. To a degree this finding complements the pro-achievement association of preparation for bias reported by Bowman and Howard (1985), although they found it to positively influ-

ence actual academic performance rather than school identification. Similarly, the finding here also supports the work of Smalls (2009), who found that preparation for bias—when employed in the context of democratic and engaged parenting—was a positive predictor of academic achievement. In the absence of those more general parenting strategies, however, Small's study showed preparation for bias to be negatively associated with academic outcomes. Considering that distinction, it is plausible that general parenting style could be an endogenous factor influencing the effectiveness of preparation for bias as a pro-achievement resilience factor. This would help explain the inconsistent findings on the relation between preparation for bias and pro-social and pro-achievement outcomes in the broader literature (Dotterer et al., 2009; Neblett et al., 2006; Smith et al., 2003).

The findings presented here also give credence to the possibility that differences in sample demographics across studies might account for differential findings regarding preparation for bias as well. With a mean age of 17.4 years at the time of the collection of the outcome data, the sample considered in the present inquiry is one of the older samples in the current literature. As noted earlier, studies of younger children tend to show more negative relations between preparation for bias and educational outcomes than studies of older adolescents (Marshall, 1995; Smith et al., 2003). It is possible then that the age of the child is an important consideration when deciding whether preparation for bias is a useful parenting practice. Several studies have, in fact, shown that racial socialization methods are more frequently used with older than with younger children (Hughes & Chen, 1997; McHale et al., 2006; Neblett et al., 2009). It should be noted that McHale et al. (2006) reported that youth's age did not affect the relations between racial socialization practices and psychological outcomes. Their sample of older-younger sibling dyads, however, was substantially younger than the one considered here (their sample ages were 13.95 and 10.31, respectively). Ultimately, it remains to be seen what may be found when considering the impact of preparation for bias across children of considerably different ages, and ideally when controlling for general parenting practices as well.

Racial Socialization as a Protective Factor Against Discrimination

Our examination of the moderating effects of racial socialization practices suggests that parents'

messages to their children regarding positive aspects of group membership (pride, history, and tradition) attenuate the negative effects of teacher discrimination on both GPA and educational aspirations. Such messages also diminish the negative trend of peer discrimination's relation with GPA. Consistent with those previous findings, however, preparation for bias shows no such moderating effects regarding discrimination experiences in school (Dotterer et al., 2009; Neblett et al., 2006). Also, contrary to our expectations, cultural socialization did not buffer the effect of teacher discrimination on either school identification or cognitive engagement. Nor does cultural socialization attenuate the significant effect of peer discrimination on school identification. These null findings are also in line with Dotterer et al. (2009) and Neblett et al. (2006), and taken together it seems cultural socialization should not be considered a cure all with regard to racial discrimination experiences. We again note, however, that cultural socialization may have some significant buffering effects here because our sample is markedly older than those used by both Dotterer et al. (2009) and Neblett et al. (2006). Given increases in cognitive capacity, salience of identity, and social sophistication that emerge in the late teen years, it is reasonable to suggest that the effects of racial socialization may be more pronounced with older youth. This potential developmental consideration merits further examination.

Racial Discrimination, Racial Socialization, Achievement, and Gender

Regarding gender effects, the results show some modest support for gender differences in how teacher discrimination experiences impact educational outcomes. It seems that the negative effect of teacher discrimination on cognitive engagement is more pronounced for African American males than for females. This gendered finding is consistent with Chavous et al. (2008), who found that discrimination from teachers was a more robust predictor of academic outcomes for males than it was for females. Our finding must be considered alongside other research that indicates that not only do African American males face disproportionate exposure to intersecting oppressive forces, but also that as a group, they employ uniquely risky adaptive responses to oppression and racism (Cunningham, 1999; Cunningham & Meunier, 2004; Spencer, 1999; Swanson et al., 2003; Thomas et al., 2009). Thus, while gender differentiations were not pervasive in this study, the disadvantage for males in any

outcome is especially concerning because African American males report more incidents of discrimination overall and sometimes exhibit particularly troubling reactions to negative social experiences. Thus, any gender differences in discrimination experiences and outcomes must be seriously considered.

Lastly, these findings suggest that cultural socialization and preparation for bias practices interact to make uniquely positive contributions to the educational aspirations and school identification of African American adolescents. Perhaps it is possible that the racial pride instilled by cultural socialization fosters within the individual the propensity for the external attribution of social or institutional disadvantages. Under these conditions, the barrier awareness provided by preparation for bias may produce a degree of motivation in academic tasks that neither cultural socialization nor preparation for bias are able to produce independently. This is admittedly speculative, but this interaction is an intriguing finding that demands further attention.

Limitations and Implications

There are several important limitations to the current study. First, while this study identifies both the main effects and the protective roles of racial socialization on adolescents' educational outcomes, there is much to understand regarding the actual mechanisms through which parental racial socialization influences school achievement and engagement. There is evidence, for example, that the educational benefits of racial socialization practices occur in the context of effective parenting more generally (McHale et al., 2006; Smalls, 2009). Also, given the effects of racial socialization on racial identity (Neblett et al., 2009), it is possible that racial identity mediates some or much of the relation between racial socialization and academic achievement. Therefore, it would be helpful for future research to examine how potential confounders or mediators influence the relations between racial socialization, discrimination, and academic achievement.

Second, while this study considers the most prominent forms of racial socialization, there are several other forms in the literature to be considered, including egalitarianism (Hughes et al., 2006), promotion of mistrust (Hughes et al., 2006), and race-related self-worth messages (Neblett et al., 2006). These dimensions of racial socialization have received less attention in the empirical literature, but future studies of these and other practices will be helpful in rounding out our understanding of how racial socialization operates to affect academic

outcomes. Third, the measures of discrimination used here are in some ways selective because they account for only certain types of discrimination by teachers or peers. To fully understand the impact of discrimination phenomena in schools, it may be advantageous to design future measures that build on a comprehensive review of discrimination mechanisms in educational settings. Lastly, the sample used here was taken from a predominantly African American metropolitan area on the East Coast of the United States. While there were certainly advantages to this research context, future research should continue to diversify the contexts in which these topics are examined, including nationally representative samples.

Despite these limitations, the current study suggests that African American families are choosing wisely when they employ cultural socialization and preparation for bias as parenting strategies. The combination of racial pride and the understanding of racial barriers seems to be the most advantageous approach in helping African American parents harness what has been called “the promise of racial socialization” (Neblett, Terzian, & Harriott, 2010). For teachers and administrators, this study reaffirms the importance of creating school environments that are supportive and encouraging, with particular attention to racialized dynamics of the schooling process (Wang, Brinkworth, & Eccles, in press). Teacher preparation programs and school institutions would benefit from both acknowledging and actively safeguarding against racial biases in key elements of practice, including teacher expectations, course placements, and student–teacher connectedness (Conchas & Rodriguez, 2008; Ferguson, 2007).

Finally, the students themselves need to understand the effects that any form of racial discrimination may have on their peers’ sense of belonging in their schools, and they should work individually and collectively to create social networks that are more open and accepting. To do so, students will need to be both conscientiousness and courageous in holding themselves and their peers accountable. In the end, the academic success of African American students will be determined in part by the collective response of parents, teachers, and students to racial discrimination in schools.

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