Published in final edited form as:

Appl Dev Sci. 2009 April 1; 13(2): 51–73. doi:10.1080/10888690902801442.

Sociocultural Factors and School Engagement among African American Youth: The Roles of Racial Discrimination, Racial Socialization and Ethnic Identity

Aryn M. Dotterer,

Department of Human Development and Family Studies, Purdue University, West Lafayette, Indiana

Susan M. McHale, and

Department of Human Development and Family Studies, The Pennsylvania State University, University Park, Pennsylvania

Ann C. Crouter

Department of Human Development and Family Studies, The Pennsylvania State University, University Park, Pennsylvania

Abstract

This study investigated the links between racial discrimination and school engagement and the roles of racial socialization and ethnic identity as protective factors in those linkages in a sample of 148, 6th through 12th grade African American adolescents from working and middle class two-parent families. In home interviews youth described their ethnic identity, discrimination experiences at school, and school engagement (school bonding, school grades, school self-esteem), and parents rated their racial socialization practices. Analyses revealed that discrimination was negatively related to school self-esteem and school bonding. Racial socialization had additive effects on school self-esteem and school bonding, but did not moderate the discrimination -- school engagement association. For boys, ethnic identity had additive effects on school bonding, but for girls, ethnic identity moderated the relation between discrimination and school bonding: When girls experienced more discrimination and had lower ethnic identity, they reported lower school bonding. Discrimination, racial socialization, and ethnic identity were not related to school grades.

School engagement refers to how students feel, behave, and think about their school experiences and has been identified as critical for the academic achievement of African American adolescents (Steele, 1992). Researchers and policymakers have been concerned about underachievement of African American youth, but most research has focused on low-income students who are at-risk for school failure. This focus overgeneralizes the

Aryn M. Dotterer, Department of Human Development and Family Studies, Purdue University, 1200 W. State St., West Lafayette, IN 47907. dotterer@purdue.edu

Susan M. McHale, Director, Social Science Research Institute, Professor, Human Development and Family Studies, The Pennsylvania State University, 114 Henderson (North), University Park, PA 16802

Ann C. Crouter, Dean, College of Health and Human Development, Professor, Human Development and Family Studies, The Pennsylvania State University, 301 Health and Human Development Building, University Park, PA 16802

experience of low-income students to African American youth as a whole and ignores possible variation *within* this racial/ethnic group. With some important exceptions (Sirin & Sirin, 2004), we know very little about school engagement and its correlates in working and middle-class African American youth.

One of the issues that set minority youths' school experiences apart from those of other students is racial/ethnic discrimination. Not only has recent research documented the pervasiveness of discrimination (Brown & Bigler, 2005; Stone & Han, 2004; Wong, Eccles, & Sameroff, 2003) but discrimination experiences have been identified as a risk factor for African American adolescents' psychological functioning (Comer, 1995; Fisher & Shaw, 1999; Simmons, Murry, McLoyd, Lin, Cutrona, Conger, 2002; Stevenson, McNeil, Herrero-Taylor, & Davis, 2005; Wong, Eccles, & Sameroff, 2003). Recently researchers have examined how discrimination is related to adolescents' achievement motivation and performance (Wong et al., 2003; Neblett et al., 2006), but the relation between discrimination and adolescents' school engagement (e.g. school self-esteem and school bonding), has not yet been investigated.

In contrast to discrimination experiences, racial socialization and ethnic identity are mechanisms that may promote resiliency among minority youth (Miller, 1999). Racial socialization may serve as a protective factor by enhancing the ability of African American adolescents to cope with race-related stressors such as discrimination (Stevenson, Reed, Bodison, & Bishop, 1997). Previous studies have found that youth's experiences with discrimination are linked to parents' racial socialization practices (Hughes & Johnson, 2001; Stevenson, McNeil, Herrero-Taylor, & Davis, 2005), suggesting that parents may help youth learn to cope with such negative experiences. Researchers have posited that ethnic identity can also promote resiliency among minority youth (Miller, 1999). Both racial socialization and ethnic identity are thought to promote effective coping and psychological strength (Scott, 2003), which are important for overcoming the negative effects of discrimination.

The purpose of the present study was to examine sociocultural factors, specifically discrimination, racial socialization, and ethnic identity that may be related to school engagement among African American youth. We drew on an ecological model of human development (Bronfenbrenner, 1979) to study connections between adolescents' experiences with discrimination and their school engagement. Using a risk and resilience framework, we also examined the extent to which racial socialization and ethnic identity moderated the association between discrimination and school engagement. The ecology of adolescents' school experiences was measured in terms of experiences with discrimination by teachers and peers to examine the following research questions: (1) How do experiences of discrimination by teachers and peers relate to school engagement among African American adolescents? (2) Do parents' racial socialization practices or youth's ethnic identity moderate the relation between youth's experiences with discrimination and their school engagement?

School Engagement

In their review of the literature on school engagement, Jimerson, Campos, and Greif (2003) identified three dimensions of school engagement: affective, behavioral, and cognitive. The affective dimension reflects an emotional link to school and refers to students' sense of belonging to school. Johnson, Crosnoe, and Elder (2001) referred to the affective component of school engagement as school attachment, reflecting the extent to which students feel close to people at their school, feel a part of their school, and are happy to be at their school. Voelkl (1997) called the affective bond between students and their schools as "identification with school". The behavioral dimension of school engagement includes students' observable actions or performance. Behavioral assessments of school engagement include: Completing homework (Connell, Spencer, & Aber, 1994; Finn & Rock, 1997), school attendance, paying attention (Connell, Spencer, & Aber, 1994; Johnson, Crosnoe, & Elder, 2001), and school grades (Jordan, 1999; Manlove, 1998). Finally, the cognitive dimension includes students' perceptions and beliefs related to self, school, teachers, and other students. Examples of this dimension include students' sense of self-efficacy as well as their academic motivation and aspirations (Jimerson, Campos, & Greif, 2003).

In an effort to explain variation in school engagement, investigators have examined background or status variables such as race/ethnicity, socioeconomic status, and gender. For example, studying a nationally representative sample of adolescents in grades 7 through 12, Johnson, Crosnoe, and Elder (2001) found that African American students reported lower levels of school attachment (sense of belonging), but were more likely to pay attention and complete homework (indicators of behavioral engagement) than their White and Hispanic counterparts. Voelkl (1997), however, reported that African American students had higher levels of school identification (sense of belonging and valuing school) than White students. These investigators have also examined variations in school engagement by socioeconomic status. Parents' educational attainment, an indicator of SES, has been positively linked to school engagement (Johnson, Crosnoe, & Elder, 2001). Measuring socioeconomic status in terms of students' participation in a free-lunch program, however, Voelkl (1997) found no connections between SES and affective school engagement among adolescents in the 8th grade.

Gender differences in school engagement have also been examined. Voelkl (1997) found that girls had higher levels of classroom participation and identification with school than did boys. With regard to behavioral engagement, Johnson, Crosnoe, and Elder (2001) found that girls reported greater behavioral engagement in both middle school and high school. Regarding affective engagement, these researchers found that girls reported greater school attachment in middle school, but in high school, girls were less attached to their schools than were boys. Focusing on gender differences among African American adolescents, Connell, Spencer, and Aber (1994) found that African American girls had higher levels of behavioral and affective engagement compared to boys and Sirin and Sirin (2005) found that behavioral engagement was higher for girls, but found no gender differences for affective engagement.

In sum, the results from these studies are mixed, with only some finding that African American students score lower in some aspects of school engagement than students from

other ethnic groups. These mixed findings highlight the importance of using a multidimensional conceptualization of school engagement, as focusing on one aspect of school engagement may provide an incomplete picture of school experiences. The gender differences in school engagement and concern over underachievement among African American males also point to the need for more research in this area. In addition, previous work has not taken into account experiences such as discrimination. Discrimination at school may impinge on school engagement by undermining self-confidence and sense of belonging in the school.

Experiences with Discrimination

In the United States minority groups are frequent targets of prejudice and discrimination (Spencer & Dornbusch, 1990). Spencer and Dornbusch (1990) also point out that discrimination experiences permeate all social classes. The resources that youth from advantaged backgrounds have available to buffer the effects of discrimination, however, are likely to differ from the resources available to socio-economically disadvantaged youth. For example, parents with more income and education are more likely to engage in racial socialization practices with their offspring (Hughes & Chen, 1997; McHale et al., 2006), and racial socialization has been positively linked to adolescents' perceived control over discriminatory experiences (Scott, 2004).

Stereotype threat refers to the psychological effects of prejudice experienced by individuals. Aronson, Quinn, and Spencer (1998) defined stereotype threat as "the discomfort targets feel when they are at risk of fulfilling a negative stereotype about their group; the apprehension that they could behave in a way as to confirm the stereotype" (pg. 85). They argue that stereotype threat can undermine academic achievement by influencing performance on mental tasks and by prompting students to protect their self-esteem by disengaging from the threatened domain. This theory proposes that, in order to protect their self-esteem, minority adolescents may de-identify with academic achievement, lowering the value they attach to academic achievement and detaching their self-esteem from academic experiences. Several researchers, however, have found no evidence of greater academic de-identification from school among African American students as compared to other groups (Eccles, 2001 cf. Eccles, Wigfield, Byrnes, 2003; Steinberg, Dornbusch, & Brown, 1992).

More generally, experiences with discrimination have been conceptualized as a risk factor for African American adolescents' well-being and adjustment (Wong, Eccles, & Sameroff, 2003; Scott, 2004; Stevenson, McNeil, Herrero-Taylor, & Davis, 2005). For example, racial discrimination has been linked to depressive symptoms in African American youth (Simons, Murry, McLoyd, Cutrona, & Conger, 2002). Examining psychological adjustment in African American college students, Fisher and Shaw (1999) found that reports of racist events were related to poorer mental health, particularly among those with less racial socialization experience. Despite the concern that experiences with discrimination are a risk factor for negative outcomes in minority youth, only a handful of studies have examined connections between experiences with discrimination and academic outcomes. One important exception is Wong et al.'s (2003) study of ethnic discrimination and school adjustment in African American youth. These researchers found that perceived discrimination by peers and

teachers was negatively related to academic motivation (e.g., importance of school, utility value of school, beliefs about their own academic competence), but was not significantly related to academic achievement as measured by school grades. These findings underscore the importance of examining the relation between experiences with discrimination and dimensions of school engagement beyond academic achievement, such as school bonding or school self-esteem.

Cultural Resources

Ethnic minority families are both a part of and apart from the dominant culture (Wilson, Cooke, Arrington, 1997), and therefore teaching children how to interact effectively in two cultures is an important aspect of socialization in these families (Boykin & Toms, 1985; Peters, 1985; Parke & Buriel, 1998). In addition to the socialization practices that are common in all families, the socialization process among ethnic minority families must also consider their social position in contemporary U.S. society. A number of studies have shown that parents play a key role in shaping their children's racial knowledge by transmitting their values, attitudes, and behaviors (Hughes & Chen, 1999; Marshall, 1995; Peters, 1985). Racial socialization has been defined as parental practices that communicate messages about race or ethnicity to children (Hughes & Chen, 1999; Thorton, 1998). Hughes and Chen (1999) elaborate on this definition by highlighting the role that both parents and children play in this process. Parents contribute by conveying their attitudes, beliefs, values, and ideas about race and race-relations. Children contribute to their own socialization by sharing their experiences and asking parents questions that may prompt parents to share attitudes, values, and information regarding race and intergroup relationships (Hughes & Chen, 1999).

The link between racial socialization and academic achievement has been examined in studies of African American adolescents. Bowman and Howard (1985) examined race-related socialization, motivation, and academic achievement among 377 African American youth between the ages of 14 and 24. Academic achievement was assessed in terms of school grades. These researchers found that, when adolescents were socialized about racial barriers and interracial protocol, they earned higher grades than youth who were taught nothing about racial status. Sanders (1997) also examined the relation between awareness of racial barriers and academic achievement in a sample of urban African American eighth graders. High achieving students were defined as those who earned a 3.0 grade point average or higher. Sanders (1997) found that students who had a greater awareness of racial barriers were more likely to be high achieving students as compared to those who had less awareness of racial barriers.

Ethnic identity is another cultural resource that has been posited to be beneficial for minority youth, and a growing body of research documents links between ethnic/racial identity and psychological and academic adjustment during adolescence (Chavous, et al., 2003; McMahon & Watts, 2002; Miller, 1999; Phinney, Cantu, & Kurtz, 1997; Sellers, Copeland-Linder, Martin, & Lewis, 2006; Witherspoon, Speight & Thomas, 1997; Wong et al, 2003). Chavous et al. (2003) examined links between dimensions of racial identity (centrality, public regard, private regard) and academic beliefs and academic performance. These

researchers found positive associations between dimensions of racial identity and academic beliefs, including school attachment and school efficacy.

Previous research suggests that a positive identification with one's ethnic group may act as a psychological buffer, protecting youth from the negative ramifications of discrimination. Indeed, theories of racial identity highlight that the primary function of an internalized racial identity is to protect individuals from the psychological harm that results from living in a racist society (Cross, Parham, & Helms, 1998). Two recent studies examined the role of ethnic identity and racial socialization as protective factors of African American youths' academic adjustment. Studying a sample of seventh grade African American adolescents from a wide range of socioeconomic backgrounds, Wong et al. (2003) studied whether ethnic identity, operationalized as "positive connection to one's ethnic group", buffered the association between discrimination and adolescents' academic functioning. To index discrimination, adolescents reported on how frequently they were mistreated by their peers and teachers because of their race. Results revealed that, as youth's connection to their ethnic group increased, greater perceived discrimination was related to smaller decreases in grade point average, but for adolescents with lower connection to their ethnic group, greater perceived discrimination was related to larger decreases in grade point average. In contrast, these researchers did not find that students' connections to their ethnic group buffered the relation between discrimination and achievement motivation (importance of school, utility value of school, self-competency beliefs).

Neblett et al. (2006) examined whether racial socialization buffered the association between discrimination and academic outcomes among African American adolescents in grades 7 through 10. Adolescents reported on their parents' racial socialization practices, including racial pride and racial barriers, as well on their own academic adjustment, including academic curiosity, academic persistence, and self-reported grades. In addition, youth reported the frequency with which they experienced discrimination. Although the researchers did not find that racial socialization moderated the links between discrimination and academic outcomes, they found that five of the six dimensions of racial socialization were significantly related to academic outcomes after accounting for discrimination.

Despite the growing literature on discrimination as a risk factor and ethnic identity/racial socialization as protective factors, previous research has not yet examined whether such risk-protective factor mechanisms operate in the same way for boys and girls. This is an important issue given minority males' more frequent experiences of racial discrimination (Fischer & Shaw, 1999; Stevenson, Cameron, Herrero-Taylor, & Davis, 2002). Some research also suggests that boys and girls receive different race socialization messages, with boys receiving more messages regarding racial barriers and girls receiving more messages regarding racial pride (Bowman & Howard, 1985; Thomas & Speight, 1999). These findings, in combination with data documenting the different school experiences of minority boys as compared to girls (Ferguson, 2000; Johnson & Englehard, 1991; Pollard, 1993) led us to examine the role of gender as an additional moderator of the link between discrimination and school engagement.

We built on the two previous studies (Neblett et al., 2006; Wong et al., 2003) in a couple additional ways. First, in order to reduce mono-reporter bias we collected parents' reports of their racial socialization practices and youth's report of discrimination, ethnic identity and school engagement. Second, we expanded the measurement of academic outcomes to include aspects of school engagement that have not previously been examined (e.g. school self-esteem and school bonding). In the present study we first examined the relation between experiences with discrimination from teachers and peers and indices of school engagement, hypothesizing that experiences with discrimination would be negatively related to school engagement as measured by school self-esteem, school bonding, and grade point average. Next we studied the relation between experiences with discrimination and cultural resources (i.e., racial socialization and ethnic identity), hypothesizing that experiences with discrimination would be positively related to parents' racial socialization practices and youth ethnic identity. Finally, to test risk and protection hypotheses, we examined whether the cultural resources of racial socialization and ethnic identity moderated the links between discrimination and school engagement. Specifically, we hypothesized that higher levels of racial socialization and stronger ethnic identity would buffer negative associations between discrimination and school engagement. We also tested whether the buffering effects of racial socialization and ethnic identity on the discrimination-school engagement link was the same for boys and girls. Given the lack of research in this area, no a priori hypotheses were made.

Methods

Participants

The data were drawn from the first phase of a longitudinal study of youth socialization and development in two-parent African American families. Participants were recruited from two large eastern cities using two different recruitment strategies. First, we hired African Americans residing in the targeted communities to recruit families by posting flyers in local businesses, providing information on the study to local churches, and distributing flyers at youth activities. Interested families then contacted the recruiters who passed on their names to the project office. Approximately half the sample was recruited using this procedure. We also purchased a marketing firm list that included names and addresses of African American students in grades 4 through 7 who lived in the geographic region of interest. We sent letters to families that described the study and included an 800 number to call and a postcard to return to the project office if the family fit the study criteria and was interested in participating. Because the marketing firm could not determine family structure or either presence or age of siblings, however, many letters went to families that did not meet project criteria. Of 1,796 letters sent, 131 were returned by the post office as undeliverable. Of the 142 families that expressed interest, 93 were eligible and 49 ineligible. Of those eligible, 86 of the families recruited via the marketing list were interviewed and 7 were not, either because the family could not be located based on the information provided on their postcards or because the family was too busy to schedule an interview during the time frame of the study (i.e., the school year).

All of the participating families self-identified as African American or Black. In terms of social class, families ranged from working to middle-class as reflected in parents'

occupations, education and family income. Mothers' job prestige averaged 48.31 ($SD=11.87$) and fathers' averaged 47.12 ($SD=13.33$) based on the National Opinion Research Council's (NORC) codes; jobs in this range include teacher's aide (48.75), dental assistant (47.80), and police/detective (47.68). Although the average family income in this sample was almost \$90,000, the range was considerable (\$3,500–\$525,000). We also calculated income-to-needs ratios. The average family had an income 4.43 times higher than the poverty level for families of their size, but again, the range was considerable ($SD=2.96$). In terms of education, mothers completed 14.63 ($SD=1.90$) years of school (i.e., some college) on average, and fathers completed 14.37 ($SD=2.29$) years of school (i.e., some college). The present analyses focus on 148 adolescents (47% girls 53% boys) in grades 6 through 12. On average, adolescents were 13.87 years of age ($SD=1.66$). The majority of adolescents attended public or charter schools (74%), and the remainder attended private or parochial schools. Youth attended schools that averaged 50% minority ($SD=0.35$), with 30% of adolescents attending schools that included over 90% minority students.

Procedures

Separate home interviews were conducted with mothers, fathers, and youth. The interviews began with a brief description of the study and informed consent/assent was obtained. Then family members were interviewed about their personal qualities and family relationships in one- (youth) to two- (parents) hour interviews. After completing the interview, the family was paid a \$200 honorarium.

Measures

Experience with discrimination was assessed in terms of adolescents' perceptions of discrimination by peers and teachers against their racial group in general (i.e., general discrimination) as well as their experiences with prejudice and discrimination directed at themselves by peers and teachers (i.e., personal discrimination) using a measure developed by Johnston and Delgado (2004). Specifically, youth reported the extent to which they agreed that their teachers and peers held discriminatory beliefs about African Americans as a group on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*). This scale is comprised of 8 items and assessed general discrimination by *peers* (e.g., "You have heard kids at school making jokes or saying bad things about African Americans") and general discrimination by *teachers* (e.g., "Your teachers are prejudiced against African Americans"). Cronbach's alpha for this sample was .89.

Youth also reported the frequency with which they experienced personal discrimination using a scale that ranged from 1 (*never*) to 4 (*often*). This scale is comprised of 8 items and assessed personal discrimination by *peers* (e.g., "How often have kids at school excluded you from their activities because you are African American?") and personal discrimination by *teachers* (e.g., "How often have you had to work harder in school than White kids to get the same praise or the same grades from your teachers because you are African American?"). Cronbach's alpha for this sample was .89.

Racial socialization was assessed using two subscales from a measure developed by Hughes and Chen (1997) that assessed cultural socialization (five items; e.g., "I've read or provided

Black history books to my child”) and preparation for bias (seven items; e.g., “I’ve talked to my children about racism”). For each item, mothers and fathers used a 6-point rating scale that ranged from *never* to *very often*. Cronbach’s alpha for cultural socialization was .83. Cronbach’s alpha for preparation for bias was .87.

Ethnic identity was assessed using the Multigroup Ethnic Identity Measure (Phinney, 1992). For each of ten items, youth used a 4-point scale (1 = *strongly disagree*, 4 = *strongly agree*) to rate how well the item described them over the past year (e.g., “I feel a special connection to other African Americans/Blacks;” “I am happy that I am African American/Black”). Although the ten items originally came from two subscales (Affirmation and Belonging and Ethnic Behaviors and Practices), the scales were highly correlated, $r = .51$, $p < .01$ and therefore combined such that high scores reflect a stronger and more positive orientation to African Americans and their culture. Cronbach’s alpha for this sample was .80.

School self-esteem was measured with 10 items from the school subscale of the Hare Area-Specific Self-Esteem Scale (Hare, 1996). Items were rated using a 4-point Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Higher scores on this scale denote greater school self-esteem (e.g., “I usually have been proud of my report card”). Cronbach’s alpha for this sample was .80.

School bonding was assessed with five items adapted from prior research (Fine, 1991; Voelkl, 1997) that reflected students’ sense of belonging (e.g., “I feel close to people at my school”). Responses were rated on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), with higher scores signifying greater school bonding. Cronbach’s alpha for this sample was .78.

School grades were obtained from youth’s report cards during the home interview. Grade point average (GPA) was calculated from grades in math, science, social studies, and language arts. Letter grades were assigned numerical scores (A = 4, and so forth) such that high scores signified higher grades.

Parents’ education was assessed during the parent home interview. Both mothers and fathers reported on their highest level of education obtained (12 = high school graduate, 14 = some college, and 16 = college graduate). The mean of mothers’ and fathers’ education levels (which were correlated, $r = .53$, $p < .001$) was used a control.

Results

Preliminary Analyses

We began by examining the descriptive statistics for the variables of interest. On average, adolescents scored below the midpoint on the scale on reports of general school discrimination: 16% of adolescents reported that they “strongly disagreed” that their peers and teachers exhibited discriminatory beliefs about African Americans in general and 54% reported that they disagreed, whereas 26% of the adolescents agreed that their peers and teachers exhibited discriminatory beliefs about African Americans in general and 3% strongly agreed. On average, adolescents also scored below the scale midpoint on the

measure of personal experiences with discrimination from peers and teachers: 40% of adolescents reported that they never experienced discrimination from peers and teachers; 48% reported that it happened “a few times”; 10% reported that it happened “some times” and only 2% reported that it happened often. With respect to school engagement, adolescents reported moderate levels of school self-esteem and school bonding, and overall, adolescents earned slightly above B- average. We also examined gender differences in the variables under study. Only one significant gender difference emerged: Boys reported more personal experiences with discrimination, $M = 12.26$, $SD = 4.63$ than girls $M = 10.31$, $SD = 4.56$; $t(146) = -2.56$, $p < .01$.

Turning to the indices of protective factors, parents reported moderate levels of cultural socialization and preparation for bias. Links between discrimination experiences, racial socialization, and ethnic identity were examined with partial correlations controlling for parental education and youth's age. We controlled for parents' education because previous research has documented connections between educational background and racial socialization (Hughes & Chen, 1997) as well as parental education and children's/adolescent's achievement (Davis-Kean, 2005). We controlled for adolescents' age because academic orientation tends to decline during adolescence (Eccles, Wigfield, & Schiefle, 1998).

Cultural socialization was not significantly related to personal or general experiences with discrimination, $r = .12$, $p > .05$; $r = .06$, $p > .05$, respectively. In contrast, preparation for bias was significantly and positively related to personal experiences with discrimination, $r = .33$, $p < .01$, but was not significantly related to general discrimination, $r = .15$, $p > .05$. Finally, ethnic identity was significantly and positively related to both general, $r = .27$, $p < .01$, and personal experiences with discrimination, $r = .20$, $p < .05$.

Is Discrimination Related to School Engagement?

We examined the links between general and personal experiences with discrimination and school self-esteem, school bonding, and GPA with partial correlations controlling for parental education and age. Results showed that general experiences with discrimination were significantly and negatively related to school self-esteem $r = -.25$, $p < .01$ and to school bonding $r = -.22$, $p < .01$. Although general discrimination was also negatively related to GPA, this association was not statistically significant, $r = -.11$, n.s. Turning to personal experiences with discrimination, we also found that personal discrimination was negatively related to school self-esteem $r = -.24$, $p < .01$ and to school bonding $r = -.27$, $p < .01$, but did not reach statistical significance for GPA, $r = -.12$, n.s.

Does Racial Socialization or Ethnic Identity Moderate the Links between Discrimination and School Engagement?

We conducted a series of hierarchical regression models in order to examine whether racial socialization or ethnic identity moderated the links between experiences with discrimination and school engagement and we also examined gender differences in these associations. In these analyses we focused on personal experience with discrimination because it is more proximal to youth well-being than general experiences with discrimination and because

personal and general discrimination were correlated, $r = .63$, $p < .01$. Separate analyses were conducted for the three outcome measures of school engagement: school self-esteem, school bonding, and GPA. In each of these analyses, background variables (i.e., youth age and parents' education) were controlled. In the first step, the background factors and all main effects were entered. In the second step, all two-way interactions were entered. In the third step, the three-way interaction was added. Variables were centered in order to reduce collinearity and ease in interpretation. Interactions were created from the cross product of the centered main effect terms.

School Self-Esteem—First, cultural socialization was examined as a moderator of the link between experiences with discrimination and school self-esteem. The overall model accounted for 7% of the variance, $F(5, 142) = 2.11$, $p = .06$. As in the correlation analyses, discrimination experience was a significant and negative predictor of school self-esteem $B = -.23$, $SE = .60$, $p < .01$, but the subsequent models that examined the interactions between cultural socialization, discrimination, and gender were not significant.

Next, preparation for bias was examined as a moderator of the link between experiences with discrimination and school self-esteem. The overall model accounted for 10% of the variance and was significant, $F(5, 142) = 3.06$, $p < .01$. Again, experience with discrimination was a significant and negative predictor of school self-esteem, $B = -.29$, $SE = .62$, $p < .01$ and preparation for bias was a significant and positive predictor of school self-esteem, $B = .18$, $SE = .06$, $p < .05$: Adolescents who received more preparation for bias from their parents reported greater school self esteem. The subsequent models that examined moderation effects were not significant.

Finally, ethnic identity was examined as a possible moderator. The overall model accounted for 10% of the variance and was significant, $F(5, 142) = 3.00$, $p < .01$. Experience with discrimination was a significant and negative predictor of school self esteem, $B = -.26$, $SE = .60$, $p < .01$. In contrast, ethnic identity was a significant and positive predictor of school self esteem, $B = .17$, $SE = .87$, $p < .05$: Adolescents with higher levels of ethnic identity reported greater school self esteem. The subsequent models that examined ethnic identity as a moderator were not significant.

School Bonding—First, cultural socialization was examined as a moderator of the link between experiences with discrimination and school bonding. Older adolescents reported somewhat less school bonding and adolescents reported more school bonding when their parents had higher levels of education (see Table 1). As in the previous analyses, experience with discrimination was a significant predictor of school bonding and showed that more discrimination was associated with less school bonding. A significant gender X cultural socialization interaction also emerged (see Table 1). This interaction was probed according to procedures outlined by Aiken and West (1991) and showed that cultural socialization was significantly related to school bonding for boys, $B = .34$, $SE = .09$, $p < .01$, but not girls, $B = -.15$, $SE = .11$, $p > .05$. Cultural socialization did not moderate the association between discrimination and school bonding.

Next, preparation for bias was examined as a moderator of the link between experiences with discrimination and school bonding. Again, adolescent age and parents' education were significant predictors of school bonding (see Table 2). As shown in Table 2, both discrimination and preparation for bias were significant predictors of school bonding. Adolescents' who reported more experiences with discrimination, reported less school bonding. In addition, greater preparation for bias by parents was associated with greater school bonding. Preparation for bias did not, however, moderate the link between discrimination and school bonding.

Finally, ethnic identity was examined as a possible moderator. After accounting for background factors in which adolescents' age and parents' education were predictors of school bonding, both experiences with discrimination and ethnic identity were significant predictors of school bonding (see Table 3). Again, adolescents with more discrimination experiences reported less school bonding, whereas adolescents with stronger ethnic identities reported higher school bonding. These significant main effects were qualified, however, by a significant discrimination X ethnic identity X gender interaction (Table 3, model 3). The interaction was probed according to procedures outlined by Aiken and West (1991) and revealed that, when girls experienced more discrimination and had low ethnic identity, they had lower school bonding, $B = .28$, $SE = 1.35$, $p > .05$ (see Figure 1). For boys, however, ethnic identity did not moderate the association between discrimination and school bonding: Boys with stronger ethnic identity had higher school bonding, regardless of experiences with discrimination, $B = -.07$, $SE = 1.98$, $p > .05$ (see Figure 1).

Grade Point Average—Cultural socialization, preparation for bias, and ethnic identity were examined as moderators of the link between discrimination and GPA. Across these three sets of analyses, parental education was the only significant predictor of grade point average: Adolescents had higher GPAs when they came from families with higher parental education levels, $B = .24$, $SE = .11$, $p > .01$. Experience with discrimination was not a significant predictor of GPA; nor were racial socialization and ethnic identity.

Discussion

Although researchers have been concerned about school engagement among African American youth, much of this work has focused on ethnic group comparisons or on at-risk youth, and less is known about within group processes. Previous research suggests that experiences with discrimination are a risk factor for adolescents, including adolescent's school engagement. Racial socialization and ethnic identity, in contrast, are two protective factors that have been posited to buffer the effects of discrimination. The purposes of this study were to: (1) examine links between experiences with discrimination and school engagement and (2) to determine whether cultural resources buffer the potential effects of discrimination on school engagement.

Our findings on experiences with discrimination showed that, overall, adolescents did not report high levels of general or personal discrimination from peers or teachers. The frequency of reported experiences with discrimination in the school context, however, is consistent with previous research (Wong et al., 2003). In this study we focused specifically

on discrimination from teachers and peers, given that school engagement was the focus of this paper. Experiences with discrimination may have occurred more frequently had we assessed discrimination from other adults (shopkeepers, police, etc.) or in contexts other than school (e.g. restaurants, malls) as other researchers have done (Sellers et al., 2006; Neblett et al., 2006). Many schools have zero tolerance policies on peer harassment such as discrimination as well as multicultural education programs, and equal educational opportunities for students from diverse racial, ethnic, social-class, and cultural groups, is a focus of many schools. Policies and practices like these may keep the rate of discrimination at school lower than it is elsewhere.

Despite the relatively low occurrence of discrimination, both general and personal experiences with discrimination were related to lower school self-esteem and school bonding, supporting the notion that experiences with discrimination are a potential risk for adolescent's cognitive and affective school engagement. This study adds to a growing literature on youth's experiences with discrimination and school-related outcomes by examining aspects of school engagement that have not been previously studied. Cognitive school engagement refers to students' *thoughts* about their academic abilities whereas affective engagement reflects students' *emotional attachment* or bond to school. Understanding how experiences with discrimination, impact school engagement is an important area of research. Consistent with theories about the harmful effects of discrimination, we found that discrimination from teachers and peers was related to lower school-self-esteem and school bonding. Discrimination, however, was not related to behavioral school engagement as measured by GPA. These findings are consistent with previous research that showed discrimination was related to lower academic motivation, but was not related to school grades (Wong, et al., 2003). One reason why we did not find connections between discrimination and GPA in our study may be because of the relatively low levels of discrimination at school. It may be that even infrequent discrimination at school is enough to impede students' school self-esteem and school bonding, but not their school grades. It is also possible that discrimination (even low levels) is related to other aspects of behavioral engagement not measured in the present study. Future research should examine the potential effects of discrimination on other indicators of behavioral engagement such as participating in class or school attendance.

Although not the main focus of this study, our findings regarding connections between experiences with discrimination and cultural resources showed that both general and personal experiences with discrimination were positively related to ethnic identity. Some researchers have suggested that racial identity develops through racial awareness (Stevenson, 1995), and discrimination may be one type of race-related experience that prompts youth to consider the salience of race to their identity. Other researchers have suggested that how adolescents interpret discrimination depends in part on the degree to which race is a central aspect of their identity (Sellers, et al. 2003). For example, adolescents may be more likely to perceive discrimination when race is a salient part of their identity. In contrast, adolescents with low levels of racial centrality may be less sensitive to race-related issues and less likely to perceive discrimination.

Our preliminary analysis regarding racial socialization showed that discrimination experiences were related to preparation for bias, but not to cultural socialization. Hughes and Johnson (2001) reported similar findings in their study of children's experiences of discrimination and parents' racial socialization practices. Given that parents reported moderate levels of cultural socialization, it appears that parents may engage in this practice regardless of their offspring's experiences with discrimination. Importantly, we found that personal experiences with discrimination were linked to preparation for bias, but that general discrimination was not linked to preparation for bias. This pattern of findings supports the notion of racial socialization as a transactional process (Hughes & Johnson, 2001): When youth encounter personal experiences with discrimination, they may be more likely to discuss these experiences with their parents, which may prompt parents' preparation for bias messages. In contrast, adolescents may be less likely to share their perceptions of general discrimination with their parents.

The main focus of this study was to examine the potential role of racial socialization and ethnic identity as protective factors for minority youth's school engagement. Contrary to our predictions, racial socialization did not buffer the effects of discrimination on school engagement. Instead, we found that racial socialization was related to school engagement in an additive way, but did not moderate the relation between discrimination and school engagement. These findings are in line with those of Neblett et al. (2006), and support a compensatory model of resilience described by Garmezy et al. (1984) in which certain compensatory factors counteract or compensate for stressful life events. Although we did not find that either aspect of racial socialization that we assessed (cultural socialization and preparation for bias), moderated the effects of discrimination on school engagement, it is possible that other aspects of racial socialization may buffer the effects of discrimination. For example, aspects of racial socialization that emphasize achievement such as the importance of getting a good education and working harder than others to get ahead may be more likely to buffer the effects of discrimination on school engagement.

Turning to ethnic identity, we found that ethnic identity served as a protective factor in the case of school bonding for girls but not boys. When girls had weaker ethnic identities and experienced more discrimination, school bonding was lower. For boys, ethnic identity had a positive additive effect on school bonding such that boys with higher ethnic identity reported greater school bonding than boys with lower ethnic identity, regardless of their experiences with discrimination. Given that boys report more discrimination, it would be useful to identify other protective factors that may be beneficial for boys.

Although our findings contribute to the literature on school engagement, our study is not without limitations. First, our study goals directed attention to a particular type of discrimination, that is, general and personal discrimination at school by teachers and peers. Had we studied other types of discrimination, such as institutional discrimination (e.g., discriminatory school practices in tracking) a different pattern of findings may have emerged. In addition, we did not obtain information on whether students were discriminated by others of the same or different race/ethnicity as themselves; thus we could not study possible within-group race discrimination. Future work might examine how such different types of discrimination relate to youth's school engagement.

This study is also limited in its cross-sectional and correlational design. The existing literature led us to frame our research to study the implications of discrimination for youth school engagement, but our design does not allow for such causal inferences. Additional longitudinal research is also needed to examine the potential long-term effects of discrimination on school engagement. Given previous work documenting declines in adolescents' academic achievement and motivation through high school, a direction for future research is to examine whether declines in school functioning are due, in part to experiences with discrimination.

It should also be noted that the goals of the larger study led us to focus on a sample of African American two-parent, working- and middle-class families; these findings however cannot be generalized to different family types. Despite these limitations, this study provides an important contribution to the study of risk and protective factors related to school engagement among African American youth. Whereas much of the previous work has focused on economically disadvantaged youth, our study adds to a small, but important area of research on working and middle-class African American youth. Our study highlights the importance of cultural resources such as racial socialization and ethnic identity for discrimination and school engagement.

Acknowledgments

This research was supported by a grant from the National Institute for Child Health and Human Development (R01-HD32336) to Ann C. Crouter and Susan M. McHale, Co-Principal Investigators. We are grateful to the entire staff of the Penn State Family Relationships Project as well as families who participated in this study.

References

- Aiken, L.S.; West, S.G. Multiple regression: Testing and interpreting interactions. Thousand Oaks, CA: Sage; 1991.
- Aronson, J.; Quinn, D.; Spencer, S. Stereotype threat and the academic underperformance of minorities and women. In: Swim, J.K.; Stangor, C., editors. Prejudice: The target's perspective. San Diego, CA: Academic Press; 1998. p. 11-36.
- Bronfenbrenner, U. The ecology of human development: Experiments in nature and design. Cambridge, MA: Harvard University Press; 1979.
- Brown CS, Bigler RS. Children's perceptions of discrimination: A developmental model. *Child Development*. 2005; 76:533-553. [PubMed: 15892777]
- Bowman PJ, Howard D. Race-related socialization, motivation, and academic achievement: A study of Black youth in three-generation families. *Journal of the American Academy of Child Psychiatry*. 1985; 24:134-141. [PubMed: 3989153]
- Boykin, A.W.; Toms, F.D. Black child socialization: A conceptual framework. In: McAdoo, H.P.; McAdoo, J.L., editors. Black children: Social, educational, and parental environments. Newbury Park, CA: Sage; 1985. p. 33-52.
- Chavous TM, Bernat DH, Schmeelk-Cone K, Caldwell CH, Kohn-Wood LP, Zimmerman MA. Racial identity and academic attainment among African American adolescents. *Child Development*. 2003; 74:1076-1090. [PubMed: 12938705]
- Connell J, Spencer MB, Aber JL. Educational risk and resilience in African American youth: Context, self, action, and outcomes in School. *Child Development*. 1994; 65:493-506. [PubMed: 8013236]
- Cross, W.E.; Parham, T.A.; Helms, J.E. Nigrescence revisited: Theory and research. In: Jones, R.L., editor. African American identity development: Theory, research, and intervention. Hampton, VA: Cobb & Henry; 1998.

- Davis-Kean PE. The influence of parent education and family income on child achievement: The indirect role of parental beliefs and the home environment. *Journal of Family Psychology*. 2005; 19:294–304. [PubMed: 15982107]
- Eccles, J.; Wigfield, A.; Schiefle, U. Motivation to succeed. In: Damon, W.; Eisenberg, N., editors. *Handbook of child psychology: Social, emotional, and personality development*. 5. Vol. 3. New York: Wiley; 1998. p. 1017-1095.
- Ferguson, AA. *Bad boys: Public school in the making of black masculinity*. Ann Arbor, MI: The University of Michigan Press; 2000.
- Finn JD, Rock DA. Academic success among students at risk for school failure. *Journal of Applied Psychology*. 1997; 8:221–234. [PubMed: 9109280]
- Fischer AR, Shaw CM. African Americans' mental health and perceptions of racist discrimination: The moderating effects of racial socialization experiences and self esteem. *Journal of Counseling Psychology*. 1999; 46:395–407.
- Garnezy N, Masten AS, Tellegen A. The study of stress and competence in children: A building block for developmental psychopathology. *Child Development*. 1984; 55:97–111. [PubMed: 6705637]
- Hughes D, Chen L. When and what parents tell children about race: An examination of race-related socialization among African American families. *Applied Developmental Science*. 1997; 1:200–214.
- Hughes, D.; Chen, L. The nature of parents' race-related communications to children: A developmental perspective. In: Balter, L.; Tamis-LeMonda, CS., editors. *Child psychology: A handbook of contemporary issues*. Philadelphia: Psychology Press; 1999. p. 467-490.
- Hughes D, Johnson D. Correlates in children's experiences of parents' racial socialization behaviors. *Journal of Marriage and Family*. 2001; 63:981–995.
- Jimerson S, Campos E, Greif J. Toward an understanding of definitions and measures of school engagement and related terms. *The California School Psychologist*. 2003; 8:7–27.
- Johnston, KE.; Delgado, MY. Mexican American adolescents' experiences with ethnic discrimination. Poster presented at the presentation at the biennial meeting of the Society for Research on Adolescence; Baltimore, MD. 2004 Mar.
- Jordan WJ. Black high school students' participation in school-sponsored sports activities: Effects on school engagement and achievement. *Journal of Negro Education*. 1999; 68:54–71.
- Manlove J. The influence of high school dropout and school disengagement on the risk of school-age pregnancy. *Journal of Educational Psychology*. 1998; 91:62–75.
- Marshall S. Ethnic socialization of African American children: Implications for parenting, identity development, and academic achievement. *Journal of Youth and Adolescence*. 1995; 24:377–396.
- McHale SM, Crouter AC, Kim J, Burton LM, Davis KD, Dotterer AM, Swanson DP. Mothers' and fathers' racial socialization in African American families: Implications for youth. *Child Development*. 2006; 77:1387–1402. [PubMed: 16999806]
- McMahon S, Watts R. Ethnic identity in urban African American youth: Exploring links with self-worth, aggression, and other psychosocial variables. *Journal of Community Psychology*. 2002; 30:411–431.
- Miller DB. Racial socialization and racial identity: Can they promote resiliency for African American adolescents. *Adolescence*. 1999; 34:493–501. [PubMed: 10658857]
- Neblett EW, Philip CL, Cogburn CD, Sellers RM. African American adolescents' discrimination experiences and academic achievement: Racial socialization as a cultural compensatory and protective factor. *Journal of Black Psychology*. 2006; 32:199–218.
- Parke, R.; Buriel, R. Socialization in the family: Ethnic and ecological perspectives. In: Damon, W.; Eisenberg, N., editors. *Handbook of child psychology, Vol. 4. Social, emotional, and personality development*. New York: Wiley; 1998. p. 463-552.
- Peters, MF. Ethnic socialization of young Black children. In: McAdoo, HP.; McAdoo, JL., editors. *Black children: Social, educational, and parental environments*. Newbury Park, CA: Sage; 1985. p. 159-173.
- Phinney J. The Multigroup Ethnic Identity Measure: A new scale for use with adolescents and young adults from diverse groups. *Journal of Adolescent Research*. 1992; 7:156–176.

- Phinney JS, Cantu CL, Kurtz DA. Ethnic and American identity as predictors of self esteem among African American, Latino, and White adolescents. *Journal of Youth and Adolescence*. 1997; 26:165–185.
- Sanders M. Overcoming obstacles: Academic achievement as a response to racism and discrimination. *Journal of Negro Education*. 1997; 66:83–93.
- Scott LD. The relation of racial identity and racial socialization to coping with discrimination among African American adolescents. *Journal of Black Studies*. 2003; 33:520–538.
- Scott LD. Correlates of coping with perceived discriminatory experiences among African American adolescents. *Journal of Adolescence*. 2004; 27:123–137. [PubMed: 15023512]
- Sellers RM, Copeland-Linder N, Martin PP, Lewis RL. Racial identity matters: The relationship between racial discrimination and psychological functioning in African American adolescents. *Journal of Research on Adolescence*. 2006; 16:187–216.
- Simons RL, Murry V, McLoyd V, Lin K, Cutrona C, Conger RD. Discrimination, crime, ethnic identity, and parenting as correlates of depressive symptoms among African American children: A multilevel analysis. *Development and Psychopathology*. 2002; 14:371–393. [PubMed: 12030697]
- Sirin SR, Sirin L. Components of school engagement among African American adolescents. *Applied Developmental Science*. 2005; 9:5–13.
- Sirin SR, Sirin L. Exploring school engagement of middle-class African American adolescents. *Youth & Society*. 2004; 35:322–340.
- Spencer, MB.; Dornbusch, S. Challenges in studying minority youth. In: Feldman, S.; Elliot, G., editors. *At the threshold: The developing adolescent*. Cambridge, MA: Harvard University Press; 1990. p. 123–146.
- Steele CM. Race and the schooling of Black Americans. *The Atlantic Monthly*. 1992; 269:67–78.
- Steinberg L, Dornbusch SM, Brown BB. Ethnic differences in adolescent achievement. *American Psychologist*. 1992; 47(6):723–729. [PubMed: 1616171]
- Stevenson HC, McNeil JD, Herrero-Taylor T, Davis GY. Influence of perceived neighborhood diversity and racism experience on the racial socialization of Black youth. *Journal of Black Psychology*. 2005; 31:273–290.
- Stevenson HC, Reed J, Bodison P, Bishop A. Racism stress management: Racial socialization beliefs and the experience of depression and anger for African American adolescents. *Youth and Society*. 1997; 29:197–222.
- Stone S, Han M. Perceived school environments, perceived discrimination, and school performance among children of Mexican immigrants. *Children and Youth Services Review*. 2005; 27:51–66.
- Thomas AJ, Speight SL. Racial identity and racial socialization attitudes of African American parents. *Journal of Black Psychology*. 1999; 25:152–170.
- Thornton MC, Chatters LM, Taylor JR, Allen WR. Sociodemographic and environmental correlates of racial socialization by Black parents. *Child Development*. 1990; 61:401–409. [PubMed: 2344778]
- Thornton, M. Indigenous resources and strategies of resistance: Informal caregiving and racial socialization in Black communities. In: McCubbin, H.; Thompson, E., editors. *Resiliency in families: Vol. 3: Resiliency in African American families*. Thousand Oaks, CA, USA: Sage; 1998.
- Voelkl KE. Identification with school. *American Journal of Education*. 1997; 105:294–318.
- Wilson, M.; Cooke, D.; Arrington, E. African American adolescents and academic achievement: Family and peer influences. In: Taylor, RD.; Wang, MC., editors. *Social and emotional adjustment and family relations in ethnic minority families*. Mahwah, NJ: Earlbaum; 1997. p. 145–155.
- Witherspoon KM, Speight SL, Thomas AJ. Racial identity attitudes, school achievement, and academic self-efficacy among African American high school students. *Journal of Black Psychology*. 1997; 23:344–357.
- Wong CA, Eccles JS, Sameroff A. The influence of ethnic discrimination and ethnic identification on African American adolescents' school and socioemotional adjustment. *Journal of Personality*. 2003; 71:1197–1232. [PubMed: 14633063]

Figure 1.
School Bonding as a Function of Discrimination and Ethnic Identity

Hierarchical Regression Analysis for Variables Predicting School Bonding: Cultural Socialization as a Moderator(N = 148)

Table 1

Variable	Model 1			Model 2			Model 3		
	B	SE B	β	B	SE B	β	B	SE B	β
Gender	0.00	0.68	.00	0.13	0.67	.01	0.13	0.67	.01
Age	-0.41	0.20	-.16*	-0.36	0.20	-.14†	-0.37	0.20	-.14†
Education	0.45	0.20	.19*	0.52	0.19	.22**	0.52	0.19	.22**
Discrimination (D)	-1.93	0.55	-.28**	-2.31	0.82	-.34**	-2.37	0.83	-.35**
Cultural Socialization (CS)	0.14	0.07	.16*	-0.12	0.11	-.13	-0.14	0.11	-.16
D * CS				-0.12	0.11	-.09	-0.22	0.18	-.17
CS * Gender				0.42	0.14	.37**	0.43	0.14	.38**
D * Gender				0.43	1.12	.05	0.39	1.13	.04
D * CS * Gender							0.16	0.22	.10
R ²		.16			.21			.21	
F for change in R ²		5.39**			4.63**			4.15**	

Note: Variables were centered at their means.

† $p < .10$.

* $p < .05$.

** $p < .01$.

Hierarchical Regression Analysis for Variables Predicting School Bonding: Preparation for Bias as a Moderator (N = 148)

Table 2

Variable	Model 1			Model 2			Model 3		
	B	SE B	β	B	SE B	β	B	SE B	β
Gender	-0.05	0.67	-.01	-0.12	0.67	-.01	-0.06	0.80	-.01
Age	-0.44	0.20	-.17*	-0.41	0.20	-.16*	-0.41	0.20	-.16*
Education	0.45	0.19	.19*	0.47	0.19	.20*	0.46	0.19	.19*
Discrimination (D)	-2.34	0.56	-.34**	-2.01	0.91	-.29*	-2.15	1.12	-.31*
Prep for Bias (PB)	0.17	0.05	.25**	0.08	0.09	.11	0.08	0.09	.13
D * PB				-0.11	0.09	-.11	-0.08	0.17	-.08
PB * Gender				0.15	0.11	.17	0.14	0.12	.16
D * Gender				0.08	1.13	.01	0.26	1.37	-.03
D * PB * Gender							-0.06	0.20	-.04
R^2		.19			.21			.21	
F for change in R^2		6.70**			4.53**			4.01**	

Note: Variables were centered at their means.

* $p < .05$.

** $p < .01$.

Table 3
Hierarchical Regression Analysis for Variables Predicting School Bonding: Ethnic Identity as a Moderator (N = 148)

Variable	Model 1			Model 2			Model 3		
	B	SE B	β	B	SE B	β	B	SE B	β
Gender	-0.09	0.68	-.01	0.09	0.67	.01	0.39	0.68	.05
Age	-0.37	0.20	-.14 [†]	-0.42	0.19	-.16 [*]	-0.34	0.20	-.13
Education	0.53	0.19	.22 ^{**}	0.52	0.18	.22 ^{**}	0.52	0.18	.22 ^{**}
Discrimination (D)	-2.08	0.55	-.30 ^{**}	-2.69	0.90	-.39 ^{**}	-3.42	0.95	-.50 ^{**}
Ethnic Identity (ID)	2.11	0.79	.21 [*]	0.40	1.09	.04	0.83	1.09	.08
D * ID				1.87	1.39	.11	4.71	1.93	.28 [*]
ID * Gender				3.84	1.59	.25 [*]	3.63	1.58	.24
D * Gender				0.59	1.11	.06	1.58	1.19	.17
D * ID * Gender							-5.81	2.78	-.23 [*]
R ²	.18			.23			.26		
F for change in R ²	6.13 ^{**}			5.24 ^{**}			5.25 ^{**}		

Note: Variables were centered at their means.

[†] $p < .10$.

^{*} $p < .05$.

^{**} $p < .01$.