



**California Center for Population Research**  
**University of California - Los Angeles**

Ethnic Socialization, Discrimination, and the  
Academic Adjustment of Adolescents  
from Latin American, Asian, and European  
Backgrounds

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**CCPR-013-07**

**April 2007**

***California Center for Population Research  
On-Line Working Paper Series***

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Draft: April 11<sup>th</sup>, 2007

\*This paper has not yet been peer reviewed. Please do not copy or cite without permission.

Support for this study was provided by a grant from the Russell Sage Foundation awarded to the second author. Preparation of this manuscript was supported, in part, by the Foundation for Psychocultural Research-UCLA Center for Culture, Brain, and Development Predoctoral Fellowship. Correspondence concerning this article should be addressed to Virginia Huynh, UCLA Psych-Development, BOX 951563, 1285 FH, Los Angeles, CA 90095-1563, email: [vwhuynh@ucla.edu](mailto:vwhuynh@ucla.edu)

## Abstract

Ethnic socialization has significant associations with African American children's academic motivation and psychological well-being. However, little is known about the role of ethnic socialization for families with Latin American and Asian backgrounds. In the present study, we examined if there were ethnic and generation differences among 524 11<sup>th</sup> grade adolescents from Mexican, Chinese, and European backgrounds in the frequency and the types of ethnic socialization messages that they received from their parents. Participants also responded to questions about discrimination experiences and academic motivation. Their grade point averages (GPAs) were collected from school records. Results indicated that adolescents from both Mexican and Chinese backgrounds reported more cultural socialization and preparation for bias messages than their peers from European backgrounds. Chinese adolescents reported more promotion of mistrust messages than their peers with European backgrounds. Moreover, promotion of mistrust messages negatively predicted academic achievement, whereas positive cultural socialization messages accounted for the higher levels of motivation among adolescents from Chinese and Mexican backgrounds as compared to their equally-achieving peers from European backgrounds. Ethnic socialization did not moderate the negative association between discrimination and achievement.

Key Words: ethnic socialization, discrimination, academic adjustment, Mexican, Chinese

Ethnic Socialization, Discrimination, and the Academic Adjustment of Adolescents  
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Ethnic socialization, generally defined as parents' ethnicity- or race-related messages to their children, is argued to be a normative and adaptive part of ethnic minority parenting (Hughes, 2003). While there has been much work regarding this process with African American families, there has been little work with Asian and Latin American families. Moreover, it is unclear whether ethnic socialization has implications for adolescents' academic adjustment, and whether it buffers adolescents from the negative effect of discrimination on achievement. This current study extends a growing body of work on ethnic socialization by including adolescents from Asian and Latin American backgrounds and examining its relationship with academic outcomes.

As described by Hughes, Rodriguez, Smith, Johnson, Stevenson, and Spicer (2006a), conveying ethnic socialization is one strategy that ethnic minority parents use to raise competent and successful children in a racialized society. Prior research regarding ethnic socialization has been done primarily with African American families. One effective framework that has been offered is that by Hughes and Chen (1997) in which they consider three elements of ethnic socialization: cultural socialization, preparation for bias, and promotion of mistrust. Conceptually, these three dimensions are important because they are driven by different intentions. *Cultural socialization* involves messages about an in-group's culture, history, and heritage, often aimed to develop children's pride in their own group. These messages about an ingroup are generally positive. *Preparation for bias* messages prepare children for racial discrimination and prejudice, providing children with strategies to cope and deal with negative experiences. These messages are aimed at providing children with an awareness of race and

proactive methods to deal with negative experiences. Lastly, *promotion of mistrust* messages are geared towards warning children about interactions with other racial groups, such as encouraging social distance from members of a different ethnic group; these are more negative messages about other ethnic groups and lack the coping or empowering component of the two other types of messages. Depending on the types of messages parents choose to emphasize, ethnic socialization is related to different developmental and academic outcomes, such as ethnic identity (Constantine & Blackmon, 2002), self esteem (Stevenson, Reed, Bodison, & Bishop, 1997), and grades in school (Marshall, 1995).

There is little research about ethnic socialization among Asian and Latin American families. Phinney and Chavira (1995) found high levels of cultural socialization among Mexican, Japanese, and African American parents. Furthermore, their research indicated that Mexican American parents may provide more ethnic socialization messages to their children as compared to Japanese American parents, perhaps because Mexican American parents expect their children to experience more discrimination due to the negative stereotypes associated with their ethnic group. However, these findings were based on interviews of a small sample of parents that took place over ten years ago. Since then, both the foreign born and native born ethnic minority population has increased in the United States (U.S. Census Bureau, 2007), which may have influenced the pattern and content of ethnic socialization. Another study, which included second generation Chinese and Dominican children in their sample, examined the extent to which parents' reports of their ethnic socialization efforts corresponded with children's reports of the ethnic socialization that they perceived, and whether ethnic socialization was related to children's ethnic identity (Hughes et al., 2006b). Although the authors found no relationship between either parent- or child-reported ethnic socialization and children's ethnic evaluation, the

sample size of this study was too small to examine whether there were ethnic group differences in this relationship.

The current study will provide information about the ethnic socialization process in families from Chinese, Mexican, and European backgrounds. Ethnic socialization is likely to be uniquely important for these groups because many Asian and Latin American adolescents come from families with recent immigrant backgrounds. As such, immigrant parents may have closer ties to their cultural traditions and heritage, and engage in more cultural socialization than non-immigrant families. For instance, Knight et al. (1993) found that Mexican American mothers whose husbands' families had been in the United States for more generations taught less about Mexican culture, and taught less about ethnic pride and discrimination. This suggests that first and second generation adolescents, who have foreign-born parents, may be more likely to receive more cultural socialization and preparation for bias messages compared to third and later generation adolescents, whose parents were born in the United States. In addition, Asian and Latin American parents may provide preparation for bias messages to their children because many adolescents experience racial discrimination from adults and from peers (Greene, Way, & Pahl, 2006). Consequently, parents may engage in preparation for bias in order to help children with these experiences, or children may elicit these conversations from their parents.

Evidence also suggests that African American parents who perceive their children to experience many incidences of unfair treatment by adults are more likely to promote mistrust of other groups (Hughes & Johnson, 2001). Although adolescents from Latin American backgrounds report experiencing discrimination in multiple contexts by adults in positions of authority, such as police officers, teachers, and shopkeepers (Rosenbloom & Way, 2004; Fisher, Wallace, & Fenton, 2000), whether parents from Latin American backgrounds are also more

likely to discourage adolescents from interacting with other racial and ethnic groups because of these experiences has not been explored. Furthermore, work by Rosenbloom and Way (2004) found that African American and Latino students saw their Asian American peers as more mistrustful of other groups. This mistrust may be attributed to the finding that Asian American students were often harassed verbally and physically by their non-Asian peers, possibly stemming from the observation that Asian American students were favored by faculty and administrators. However, it is unclear if parents facilitate this mistrust by providing negative messages to their children.

Research has only recently begun to examine immigration background differences in preparation for bias and promotion of mistrust messages. Findings by Hughes (2003) suggest that, in general, immigrant families provide less preparation for bias and promotion of mistrust messages compared to non-immigrant families. However, her non-immigrant reference group was African American families, who were likely to experience more racial discrimination compared to other non-immigrant groups. Our study will examine whether these immigrant status differences in ethnic socialization remain when the non-immigrant sample is mostly European American adolescents who, as the ethnic majority, may be less likely to experience of ethnic socialization.

To date, there are no consistent gender differences in adolescents' ethnic socialization (Hughes et al., 2006a). While some research on African American samples found that boys are more likely to be socialized about bias and girls are more likely to be socialized about racial pride (e.g. Bowman & Howard, 1985), others have found no differences (e.g. Hughes & Chen, 1997). The presence or absence of gender differences in receiving ethnic socialization may depend on whether parents expect boys and girls to have different experiences relating to their

race or ethnicity. For instance, if parents expect boys to face more incidents of racism, parents may be more likely to prepare boys for bias. As women are generally seen as responsible for family matters such as caretaking, parents may believe that cultural socialization is an important part of socializing girls. Thus, we explored whether any gender differences existed in our ethnically diverse sample.

Previous work further suggests that socioeconomic status also affects ethnic socialization. Older and highly educated African American mothers were more likely to racially socialize their children than younger and less educated mothers (Thornton, Chatters, Taylor & Allen, 1990). However, this relationship has not been examined in samples from Latin American and Asian backgrounds.

#### *Ethnic Socialization and Academic Adjustment*

Research on African American children and adolescents suggests that ethnic socialization may be related to their academic adjustment. Among African American 17-year-old adolescents, having strong group pride and high levels of racial centrality positively predicted positive school attitudes, high school completion and college attendance (Chavous et al., 2003). As cultural socialization has been demonstrated to be positively associated with ethnic identity among African American (Stevenson, 1995) and Mexican American (Umana-Taylor & Fine, 2004) adolescents, it is possible that cultural socialization messages may influence adolescent adjustment through facilitating ethnic identity and ethnic pride. In this study, we were also particularly interested in the relation between cultural socialization and academic motivation and achievement for adolescents from Asian and Latin American backgrounds for two reasons. Firstly, embedded in cultural socialization may be messages about family obligation, which is consistent with many Latin American and Asian cultures, and has been found to be positively

related to adolescents' academic motivation and time spent studying (Fuligni, 2001). Secondly, cultural socialization may also account for group differences in motivation. For instance, Fuligni, Witkow, and Garcia (2005) found that ethnic identity (e.g. Stevenson, 1995) was a source of additional motivation for adolescents from Asian and Latin American backgrounds. As cultural socialization is positively related to ethnic identity, cultural socialization may also serve as an additional source of motivation for these adolescents.

The relationship between preparation for bias messages and academic adjustment has been mixed. Preparation for bias has been found to be related to higher grades and feelings of personal efficacy among African American adolescents (Bowman & Howard, 1985). Additional research has found that, if proactive, awareness of racism and challenges is related to increased academic motivation (Sanders, 1997). However, others have found that preparation for bias is related to lower grades for 9-10 year olds (Marshall, 1995). Perhaps the relation between preparation for bias messages and academic adjustment is more complex, depending on contexts and moderator variables such as age or strength of children's ethnic identity. Because research regarding the relation between preparation for bias messages and academic adjustment has been mixed, it is unclear whether these messages will promote or hinder adolescents' school attitudes and performance.

Finally, little is known about whether promotion of mistrust messages are related to youth outcomes (Hughes et al., 2006a). The limited research on African American children and adolescents' has found promotion of mistrust to be related to externalizing problems among children in first grade (Caughy, Nettles, O'Campo, & Lohrfink, 2006) and deviant behavior among adolescents (Biafora et al., 1993). Thus, it is possible that promotion of mistrust messages may be negatively related to academic motivation and achievement.

Ethnic socialization also may affect academic outcomes by modifying the effects of discrimination. Racial discrimination from peers and adults seems to be prevalent in the lives of ethnic minority adolescents in urban schools (Rosenbloom & Way, 2004), with adolescents from Asian background perceiving more peer discrimination than their other-ethnic peers, and adolescents from Latin American backgrounds reporting more adult discrimination than their other-ethnic peers (Greene et al., 2006). Wong, Eccles, and Sameroff (2003) found that African American adolescents' perceptions of racial discrimination may negatively affect adolescents' academic motivations, but that ethnic identification may serve as a buffer to reduce the negative association of discrimination experiences with declines in academic motivation. Given that cultural socialization is highly correlated with ethnic identity (e. g. Stevenson, 1995; Umaña-Taylor & Fine, 2004), it is possible that cultural socialization and preparation for bias may similarly buffer adolescents from the negative effects of discrimination. In contrast, due to the more negative nature of promotion of mistrust messages, this aspect of ethnic socialization might exacerbate the negative relationship between discrimination and motivation.

### *Hypotheses*

In this current study, we determined whether there were ethnic, generational, and gender differences in ethnic socialization. We also tested the associations between ethnic socialization and academic outcomes, and examined the extent to which these associations differed by gender and parental education. Lastly, we examined whether ethnic socialization moderates the relationship between ethnic discrimination and academic adjustment.

We expected adolescents from Mexican and Chinese backgrounds to report more cultural socialization than their peers from European backgrounds. Because adolescents from Mexican backgrounds may experience more adult discrimination than their other-ethnic peers, as well

high levels of peer discrimination (Green et al., 2006), they were expected to report more preparation for bias and promotion of mistrust messages than their peers from Chinese backgrounds, who in turn were expected to report more of these messages than their peers from European backgrounds. First and second generation adolescents were expected to report more cultural socialization messages than their third generation peers.

Consistent with the literature, it was expected that promotion of mistrust messages would predict negative academic outcomes, whereas cultural socialization messages would predict positive academic outcomes. Given the mixed findings regarding the relations between academic adjustment and preparation for bias, no predictions were made concerning these messages.

In terms of discrimination, we expected adolescents from Mexican backgrounds to report more perceptions of adult discrimination than their peers from Chinese backgrounds, who in turn would report more adult discrimination than their peers from European backgrounds. Adolescents from Chinese backgrounds were expected to report more peer discrimination than their peers from Mexican backgrounds, who, in turn, were expected to report more peer discrimination than their peers from European backgrounds. Moreover, if there was a negative association between the frequency of perceived discrimination experiences and academic motivation (Wong et al., 2003), ethnic socialization would be expected to moderate this relationship. Specifically, cultural socialization and preparation for bias were expected to minimize the negative impact of discrimination, whereas promotion of mistrust was predicted to magnify the effect.

## Method

### *Participants*

Eleventh grade students (n = 524) from three ethnically diverse public high schools in the Los Angeles metropolitan area participated in this study. As shown in Table 1, there were approximately the same number of adolescents from Mexican, Chinese, and European backgrounds. Most of the students from Mexican and Chinese backgrounds were from immigrant families, being of either the first (youth born outside of the United States) or the second (youth born in the United States, but at least one parent was foreign-born) generation. Adolescent girls (53.9%) and boys were equally represented among the sample, though there were more girls (60.5%) than boys in the European American sample.

The first school was attended primarily by students from Latin American and Asian backgrounds whose parents had lower-middle to middle class occupational and educational backgrounds. The second school consisted of students predominantly from Latin American and European backgrounds, and lower-middle to middle class backgrounds. The third school was populated by mostly students from families with Asian and European backgrounds, with middle to upper-middle class backgrounds. In terms of achievement, the first school fell in the lower-middle to middle range of the distribution of California schools, whereas the second and third schools fell in the average and somewhat above average range of the distribution. None of the three schools had a single majority ethnic group, but the two most common ethnic groups in each school comprised 30-50% of the population.

The ethnic composition, overall level of achievement, and the socioeconomic status of these participants reflected those of the communities from which students were drawn. Students reported both their mother's and father's highest educational attainment by responding to a scale

that ranged from “elementary/junior high school,” “some high school,” “graduated from high school,” “some college,” “graduated from college,” to “law, medical, or graduate school.”

Parents of adolescents from European backgrounds were more likely to have received college degrees than parents of adolescents from Chinese backgrounds, who, in turn, were more likely to have at least attended college than the parents of adolescents from Mexican backgrounds,  $F(2, 487) = 102.89, p < .01; \eta^2 = .30$ . Adolescents' reports of their parents' jobs were coded into the following five categories: unskilled, semiskilled, skilled, semiprofessional, professional. Ethnic differences in occupational status followed a pattern similar to ethnic difference in education, with parents of students from European backgrounds being employed in higher level occupations than Chinese parents, who, in turn, worked in higher status occupations than Mexican parents,  $F(2, 438) = 53.57, p < .01; \eta^2 = .20$ .

Among adolescents from Mexican backgrounds, parental educational and occupation levels were lower for first and second generation parents as compared to third generation parents: education,  $F(2, 168) = 21.07, p < .01; \eta^2 = .20$ ; occupation  $F(2, 142) = 7.47, p < .01; \eta^2 = .10$ . Parents of second generation adolescents from Chinese backgrounds had lower educational levels than parents of third generation adolescents,  $F(2, 155) = 8.50, p < .05; \eta^2 = .05$ . There were no significant generational differences in the occupation levels of parents from Chinese backgrounds,  $F(2, 146) = .91, ns$ .

### *Procedure*

Participants were recruited from spring semester classes that all eleventh grade students were required to take regardless of their academic ability (e.g., social studies, physical education). Students who returned parent consent forms and provided their own assent to participate completed a questionnaire during class time that included demographic information

as well as information on their ethnic socialization experiences and academic motivation. Consent forms and study materials were available to students and their parents in English, Chinese, and Spanish. However, all students chose to complete the questionnaires in English.

### *Measures*

*Ethnic socialization.* Ethnic socialization was measured Hughes and Chen's (1997) ethnic socialization measure. Participants responded to questions about the frequency of ethnic socialization messages on a 1 (*never*) to 5 (*six or more times*) Likert Scale. The measure consisted of three subscales that demonstrated good reliability in previous research (Hughes & Johnson, 2001): cultural socialization, preparation for bias, and promotion of mistrust.

The *cultural socialization* subscale, which consisted of five items, had good internal consistency ( $\alpha = .83$ ), and was similarly reliable for adolescents from all three ethnic backgrounds (Mexican: .85, Chinese: .76, European: .83). An example question was: "In the past year, how many times have your parents encouraged you to read books concerning the history or traditions of your ethnicity?"

The *preparation for bias* subscale, which consisted of six items, also had good internal consistency ( $\alpha = .86$ ) and was similarly reliable for adolescents from all three ethnic backgrounds: (Mexican: .87, Chinese: .82, European: .85). An example question was: "In the past year, how many times have your parents told you that people might try to limit you because of your ethnicity?"

The *promotion of mistrust* subscale consisted of two items, which were highly correlated with one another ( $r = .71$ ), and the correlations were similar for the adolescents from all three ethnic backgrounds: (Mexican: .73, Chinese: .69, European: .72). An example question was: "In

the past year, how many times have your parents done or said things to keep you from trusting students from other ethnic groups?"

*Academic achievement.* Adolescents' course grades for both semesters were provided from their official school records at the end of the school year. Grades were averaged to create an index of academic performance, where 0 = F, 1 = D, 2 = C, 3 = B, and 4 = A. Adolescents took the same social studies classes and generally the same level of English and science classes (65% to 75% took the same level of courses). Although adolescents varied in their enrollment in different levels of mathematics classes, grades were not standardized within levels of mathematics classes because the students in higher level classes generally earned higher grades than those in lower level classes.

*Value of academic success.* Six items were used to assess the extent to which students placed importance on doing well and succeeding in school. Students reported how important the following things were to them on a 1 (*not important*) to 5 (*very important*) scale: "That you do well in school," "That you get good grades," "That you get an 'A' on almost every test," "That you go to college after high school," "That you be one of the best students in your class," and "That you go to the best college after high school." This scale possessed a good internal consistency ( $\alpha = .87$ ) and was similarly reliable for the adolescents from all three ethnic backgrounds (Mexican: .83, Chinese: .85, European: .88).

*Intrinsic value of school.* To assess students' intrinsic value of school, adolescents responded to the following two items adapted from Eccles (1983) on a five point scale: "In general, I find working on schoolwork..." (1 = *very boring*, 5 = *very interesting*) and "How much do you like working on schoolwork?" (1 = *a little*, 5 = *a lot*). These two items were highly

correlated ( $r = .69$ ), and the correlations were similar for the adolescents from all three ethnic backgrounds (Mexican: .63, Chinese: .71, European: .72).

*Utility value of school.* To assess the extent to which students believed that school was useful for their present and future lives, students responded to four items adapted from Eccles (1983). On a scale from 1 (*not at all important*) to 5 (*very important*), students reported how important they think being good at school was. Adolescents also responded to the following statements on a 1 (*not at all useful*) to 5 (*very useful*) scale: “Right now, how useful do you find things you learn in school to be in your everyday life?”, “In the future, how useful do you think the things you have learned in school will be in your everyday life?”, and “How useful do you think the things you have learned in school will be for what you want to be after you graduate?” This scale possessed a good internal consistency ( $\alpha = .76$ ) and was similarly reliable for the adolescents from all three ethnic backgrounds (Mexican: .74, Chinese: .77, European: .80).

*School self-concept.* Adolescents' concept of their ability in school was measured by their responses to two items adapted from Eccles (1983). Adolescents responded on a scale from 1 (*not at all good*) to 5 (*very good*) to the item “How good are you at school?” Adolescents also responded on a scale ranging from 1 (*worst*) to 5 (*best*) to the item “If you were to rank all the students in your grade from the worst to the best in their classes where would you put yourself?” An average of these two items was computed. These two items were highly correlated ( $r = .66$ ), and the correlations were similar for the adolescents from all three ethnic backgrounds (Mexican: .61, Chinese: .60, European: .76).

*Discrimination.* Students reported the frequency of perceived discrimination experiences in the past year from adults and peers using a 1 (*never*) to 5 (*all the time*) scale developed by Greene et al. (2006). Example questions from this 14 item measure (seven items regarding peer

discrimination, and seven items regarding adult discrimination) were “How often have you felt racial or ethnicity-based discrimination from adults in the following situations: [Being treated unfairly, Being disliked].” The peer discrimination measure demonstrated excellent reliability ( $\alpha = .92$ ) and was similarly consistent among the different ethnic groups (Mexican: .91, Chinese: .92, European: .93). The adult discrimination measure also had great reliability ( $\alpha = .92$ ), and demonstrated similar levels of consistency among the different ethnic groups (Mexican: .91, Chinese: .92, European: .91).

## Results

### *Ethnic, gender, and generation differences in ethnic socialization*

To examine ethnic and gender differences in adolescents’ reports of ethnic socialization, we conducted three 3 (ethnicity: Chinese, Mexican, European background) x 2 (gender: boy, girl) analyses of variance (ANOVAs), one for each ethnic socialization subscale. All post hoc analyses used a Bonferonni correction. Generational status differences (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>) were tested using a one-way ANOVA separately for each ethnic group because of the confound between ethnicity and generation status. Follow-up analyses indicated that parental education was not associated with adolescents reports’ of ethnic socialization, therefore results presented here do not include parental education.

*Ethnicity.* Overall, reports of ethnic socialization were not very high, with all groups falling below the midpoint on the five point scale. Nevertheless, there was a significant main effect of ethnicity for all ethnic socialization dimensions (Figure 1). For cultural socialization,  $F(2, 506) = 25.42, p < .01; \eta^2 = .09$ , post hoc analyses indicated that adolescents from both Mexican ( $M = 2.52, SE = .07$ ) and Chinese backgrounds ( $M = 2.43, SE = .07$ ) reported higher levels of cultural socialization than adolescents from European backgrounds ( $M = 1.84, SE =$

.07). For preparation for bias,  $F(2, 506) = 18.44, p < .01; \eta^2 = .07$ , post hoc analyses indicated that adolescents from Mexican ( $M = 1.97, SE = .06$ ) and Chinese backgrounds ( $M = 1.77, SE = .07$ ) reported higher levels of preparation for bias than adolescents from European backgrounds ( $M = 1.43, SE = .07$ ). Adolescents from Chinese backgrounds did not differ significantly from adolescents from Mexican backgrounds in their reports of preparation for bias. For promotion of mistrust,  $F(2, 504) = 5.08, p < .01; \eta^2 = .02$ , post hoc analyses indicated that adolescents from Chinese backgrounds ( $M = 1.55, SE = .06$ ) reported higher levels of promotion of mistrust than adolescents from European backgrounds ( $M = 1.27, SE = .07$ ). Adolescents from Mexican backgrounds ( $M = 1.47, SE = .06$ ) did not differ significantly from adolescents from other backgrounds in their reports of promotion of mistrust.

*Gender.* There was a main effect of gender for cultural socialization,  $F(1, 506) = 6.46, p < .05; \eta^2 = .01$ . The results indicated that adolescent girls ( $M = 2.36, SE = .06$ ) reported more cultural socialization than adolescent boys ( $M = 2.16, SE = .06$ ). There was no main effect of gender for both preparation for bias  $F(1, 506) = .60, ns$ , and promotion of mistrust  $F(1, 504) = .52, ns$ . In addition, there were no significant interactions between gender and ethnicity in predicting adolescents' reports of cultural socialization  $F(2, 506) = .62, ns$ , preparation for bias  $F(2, 506) = 1.77, ns$ , or promotion of mistrust  $F(2, 504) = .25, ns$ .

*Generation.* There was a significant main effect of generation on cultural socialization only for adolescents from Mexican backgrounds,  $F(2, 168) = 4.15, p < .05; \eta^2 = .05$ , such that second generation adolescents ( $M = 2.62, SE = .10$ ) reported higher cultural socialization than third generation adolescents ( $M = 2.00, SE = .17$ ). First generation Mexican adolescents ( $M = 2.58, SE = .16$ ) did not differ significantly from second or third generation in cultural

socialization messages. There was no main effect of generation status for preparation for bias and promotion of mistrust for adolescents from any of the three ethnic groups.

*Ethnic socialization and academic outcomes*

To test whether ethnic socialization messages were related to academic achievement and motivation, regressions were conducted for each academic outcome. Parental education, dummy variables for ethnicity, and all three ethnic socialization variables were entered into the model simultaneously. Results indicated that adolescents who reported higher levels of cultural socialization also reported higher intrinsic and utility values of school, as well as marginally stronger academic values (Table 2). Promotion of mistrust and preparation for bias generally did not predict academic attitudes, with only preparation for bias being marginally and negatively associated with adolescents' intrinsic and utility values of school. None of the measures of ethnic socialization predicted adolescents' school self-concept.

In terms of actual performance at school, adolescents' report of promotion of mistrust was the only significant predictor of their GPA, in a negative direction (Table 3).

We also conducted five ANCOVAs (for academic achievement and each of the four academic attitudes) in which we used tests of equal slopes to test the interaction of ethnic socialization and ethnicity. This test allowed us to determine whether the association between academic outcomes and ethnic socialization differed by ethnicity. The results indicated that there were no consistent ethnic differences in the relationship between ethnic socialization and academic adjustment because only 1 out of a possible 12 interactions of ethnicity and ethnic socialization was significant. Specifically, higher levels of preparation for bias were associated with higher levels of the value of academic success among adolescents from Chinese backgrounds, as compared with adolescents who reported lower levels of preparation for bias,

$F(2, 468) = 3.23, p < .05; \eta^2 = .01$ . However, the same association did not exist for adolescents from Mexican and European backgrounds.

*Cultural socialization and ethnic differences in academic attitudes*

As shown in Table 4, with the exception of self-concept of school, ANOVAs indicated that adolescents from Mexican and Chinese backgrounds had more positive academic attitudes than their counterparts from European backgrounds. These positive academic attitudes were present despite the fact that adolescents from Mexican backgrounds received lower grades ( $M = 2.40, SD = .77$ ) and the adolescents from Chinese backgrounds received similar grades ( $M = 3.11, SD = .69$ ) as compared to their peers from European backgrounds ( $M = 2.94, SD = .70$ ),  $F(2, 485) = 43.6, p < .01; \eta^2 = .15$ . As the results indicated that cultural socialization was related to academic attitudes, and that there were higher frequencies of cultural socialization reported among adolescents from Mexican and Chinese backgrounds, we were interested in whether cultural socialization may explain some of the ethnic differences in academic attitudes. Specifically, how does cultural socialization help adolescents from Mexican backgrounds hold high levels of motivation regardless of experiencing academic difficulties and being members of an ethnic minority and immigrant family? Likewise, we were curious about whether cultural socialization helped adolescents from Chinese backgrounds have high levels of motivation despite the challenges their families faced as immigrants and ethnic minorities in the United States.

In the first step, regression analyses were conducted to estimate ethnic differences in academic attitudes after controlling for adolescents' GPA. These analyses assessed whether, given students with the same GPA, adolescents from Chinese and Mexican backgrounds reported more positive academic attitudes than their counterparts from European backgrounds. Such

differences could be interpreted as indicating that adolescents from Mexican and Chinese backgrounds have higher motivation than their equally-achieving peers from European backgrounds. In the second step, analyses were conducted to establish whether cultural socialization messages significantly mediated the ethnic differences in academic attitudes. Evidence of mediation would suggest that a significant portion of the higher levels of motivation it takes for Mexican and Chinese adolescents to achieve at the same level as their European peers is related to the cultural socialization messages they receive as part of their ethnic background.

Mediation analyses were conducted by estimating the magnitude and the significance of the indirect effects of ethnicity on academic attitudes, through cultural socialization, as outlined by Baron and Kenny (1986). To determine the proportion of ethnic differences in academic motivation accounted for by cultural socialization, the indirect effects of cultural socialization were divided by the total effects of ethnicity on motivation. All analyses controlled for GPA.

As shown in the column labeled “Total effect” in Table 5, except for school-concept, adolescents from Mexican backgrounds reported significantly higher levels of motivation on all measures of academic attitudes than adolescents from European backgrounds. Additionally, adolescents from Chinese backgrounds reported significantly higher levels of utility of schooling and academic value compared to their European counterparts. The higher levels of cultural socialization reported by Chinese and Mexican adolescents accounted for significant portions of the tendency for adolescents from Mexican and Chinese backgrounds to report more positive academic motivation than their equally achieving peers from European backgrounds. Cultural socialization accounted for 14% to 35% of the differences between adolescents from Mexican and Chinese backgrounds compared to their peers from European backgrounds.

*Ethnic, gender, and generational differences in discrimination*

To examine ethnic and gender differences in adolescents' reports of ethnic discrimination, we first conducted two 3 (ethnicity: Chinese, Mexican, European background) x 2 (gender: boy, girl) ANOVAs, one for peer discrimination and one for adult discrimination. All post hoc analyses used a Bonferonni correction. These analyses were followed by additional models in which parental education was included as a covariate. Generational status differences (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>) were tested using a one-way ANOVA separately for each ethnic group because of the confound between ethnicity and generation status.

*Ethnicity.* There were significant ethnic differences in perceptions of both peer and adult discrimination. For peer discrimination,  $F(2, 499) = 4.77, p < .01; \eta^2 = .02$ , post hoc analyses indicated that adolescents from Mexican backgrounds ( $M = 1.75, SE = .06$ ) reported more peer discrimination than adolescents from European backgrounds ( $M = 1.49, SE = .06$ ). Adolescents from Chinese backgrounds ( $M = 1.63, SE = .06$ ) did not differ significantly from their peers in perceptions of peer discrimination.

For perceptions of adult discrimination,  $F(2, 500) = 23.20, p < .01; \eta^2 = .09$ , post hoc analyses indicated that adolescents from Mexican backgrounds ( $M = 1.89, SE = .06$ ) reported more adult discrimination than adolescents from Chinese backgrounds. Adolescents from Chinese backgrounds ( $M = 1.55, SE = .05$ ) also reported more adult discrimination than adolescents from European backgrounds ( $M = 1.34, SE = .06$ ).

*Gender.* There also was a main effect of gender for adult discrimination, ( $M = 2.521, SE = .07$ ), such that adolescent boys ( $M = 1.67, SE = .05$ ) reported more adult discrimination than adolescent girls ( $M = 1.51, SE = .04$ ). There was no interaction of gender by ethnicity in predicting adult discrimination  $F(2, 500) = 1.44, ns.$ , and there was no gender difference  $F(1,$

499) = 1.27, *ns* or interaction of gender by ethnicity in predicting peer discrimination  $F(2, 499) = 2.81, ns$ .

*Parental education.* Parental education was negatively associated with both peer,  $b = -.08 (.03), F(1, 465) = 8.83, p < .01; \eta^2 = .02$ , and adult discrimination,  $b = -.06 (.03), F(1, 466) = 5.09, p < .05; \eta^2 = .01$ . For peer discrimination, once parental education was entered in the model and shown as a significant covariate, there was no longer a main effect of ethnicity. For adult discrimination, although parental education was a significant covariate, there was still a main effect of ethnicity.

*Generation.* There were no generational differences in adolescents' reports of discrimination within all three ethnic groups,  $F_s(2, 156-174) = .49-1.77, ns$ .

#### *Discrimination, ethnic socialization, and academic outcomes*

Pearson's correlations were conducted to see if ethnic socialization was related to discrimination (see Table 6). As expected, all dimensions of ethnic socialization were significantly associated with perceptions of both peer and adult discrimination.

Next, we examined the association between discrimination and academic outcomes. Peer discrimination was only negatively associated with GPA, ( $r = -.15, p < .01$ ) and was not associated with any of the four measures of academic attitudes, ( $r = .00$  to  $r = -.07, ns$ ). Adult discrimination was negatively associated with GPA and school-concept, ( $r = -.26, p < .01$  and  $r = .10, p < .05$ , respectively).

To examine whether ethnic socialization interacted with discrimination to potentially buffer (in the case of cultural socialization and preparation for bias) or exacerbate (in the case of promotion of mistrust) discrimination's negative relationship with GPA, GPA was entered as the outcome in a series of multiple regression analyses. Six separate analyses were conducted in

which the interaction between each pair of ethnic socialization type (cultural socialization, preparation for bias, promotion of mistrust) and discrimination type (peer, adult) was estimated. In all analyses, the effects of ethnicity and parental education were adjusted. In no case did any type of ethnic socialization modify the negative associations of peer and adult discrimination with GPA.

### Discussion

As expected, adolescents from Chinese and Mexican backgrounds, who were mostly first or second generation American, reported more cultural socialization than their peers from European backgrounds. Both first and second generation adolescents had foreign-born parents who likely had closer ties to their cultural background and traditions, and thus discussed it more with their children compared to the parents from European backgrounds in this sample who, for the most part, were born in the US. Moreover, there were only generation status differences in reports of cultural socialization for Mexican adolescents; second generation adolescents reported more cultural socialization than third generation adolescents. This is consistent with previous research that indicates that later generations of families engage in less cultural socialization (e. g. Knight et al., 1993; Umana-Taylor & Fine, 2004). The lack of generation differences among the adolescents from Chinese and European backgrounds may be because only adolescents from Mexican backgrounds had high numbers of first, second and third generation Americans. In future years, as the population of third generation Chinese adolescents expands, future research will be able to examine whether the generational trend found among Mexican adolescents also exists among Chinese adolescents.

Surprisingly, Chinese and Mexican adolescents did not differ in their reports of the frequency of preparation for bias messages from their parents. However, both groups reported

more of these messages than their peers from European backgrounds, suggesting that ethnic minority parents were aware of various barriers that their children may face. This is consistent with our results that indicate that adolescents from Mexican and Chinese backgrounds report higher levels of perceived peer and adult discrimination than their peers from European backgrounds. It is likely that these ethnic minority parents found it important to explicitly talk to their adolescents about past and possible future discrimination experiences (Hughes & Chen, 1999).

As expected, adolescents from Mexican backgrounds reported more promotion of mistrust messages than those from European backgrounds; however, these differences were not significant. Interestingly, though low in frequency, adolescents from Chinese backgrounds reported more promotion of mistrust messages than adolescents from European backgrounds. These data suggest that in addition to providing messages that prepare adolescents for discrimination, some ethnic minority parents may also convey to their children that certain ethnic groups should not be trusted. However, it is unclear whether such promotions of mistrust were driven by stereotypes or by parents' personal experiences. Prior research, however, similarly found promotion of mistrust messages to be extremely rare (Hughes et al., 2006a).

Consistent with some previous research regarding African Americans, adolescent girls reported receiving more cultural socialization than adolescent boys (Bowman & Howard, 1985; Thomas & Speight, 1999) - possibly because parents believed it was an important part of socializing girls as future caretakers and transmitters of this information to later generations. However, others have not found such gender differences (e.g. Hughes & Chen, 1997; Caughy et al., 2002). As our study is one of few that have examined gender differences in cultural socialization among Chinese and Mexican families, more research is needed to determine

whether this finding is consistent among different Asian and Latin American populations.

Our findings highlight the importance of differentiating the types of ethnic socialization messages in examining academic outcomes. As researchers only recently separated ethnic socialization into different dimensions, few studies have systematically examined how each dimension of ethnic socialization is related to academic outcomes (Hughes et al., 2006a). Our results indicate that although cultural socialization was not related to academic achievement, it significantly mediated the ethnic differences in academic motivation. This suggests that cultural socialization may keep adolescents from Mexican and Chinese backgrounds engaged in school despite facing the challenges of being a member of an ethnic minority and/or immigrant family, such as having fewer socioeconomic resources and/or navigating a different school and cultural system (Fuligni, 1998; Fuligni, 2001). Instead of directly affecting achievement, explicit cultural socialization messages that promote pride in adolescents' culture may be important in fostering high levels of academic motivation that allow adolescents from Mexican and Chinese backgrounds to persist academically and achieve at levels similar to their peers from the European backgrounds. This is consistent with prior work that found ethnic identity to be more important for academic motivation than high school GPA among adolescents from Mexican, Chinese, and European backgrounds (Fuligni et al., 2005) and more important for college enrollment than high school achievement among African American adolescents (Chavous et al., 2003). Thus, it would be important to follow students throughout their academic trajectories to establish whether cultural socialization is more important for indicators of persistence - such as taking the required steps to be eligible for college - than their actual academic performances.

In contrast, promotion of mistrust messages were negatively related to achievement. This suggests that these negative messages, though infrequent, may have real consequences for

adolescents. Adolescents who are distrustful of other groups may anticipate negative interactions and therefore believe that they must be careful with whom they work with or talk to. Such notions may impede the development of healthy relationships with teachers and peers that are important for adolescents' social and academic adjustment.

As for preparation for bias messages, some researchers have argued that it is difficult to disentangle these messages from promotion of mistrust messages (e.g. Hughes et al., 2006b). In addition, those who have examined preparation for bias in relation to academic adjustment among African American students have produced mixed results (e.g. Sanders, 1997; Marshall, 1995). In light of previous research, it is not surprising that preparation for bias among adolescents from Mexican, Chinese, and European backgrounds – populations argued to report lower rates of preparation for bias messages than their African American peers (Hughes et al., 2006a) - was not significantly related to any indicators of academic adjustment in this current study.

Regarding discrimination, adolescents from Mexican backgrounds reported more adult discrimination than their European and Chinese peers. This is consistent with previous work by Rosenbloom and Way (2004) who found that Latino adolescents believed that teachers tended to have low expectations and negative stereotypes of Latino students, and that other adults were suspicious of their ethnic group. In addition, adolescents from Chinese backgrounds reported more adult discrimination than their European peers. Because people from Asian backgrounds are often portrayed as the hardworking and academically successful "model minority," Chinese adolescents may be treated differently by adults and peers both in and out of school. As discussed by Greene et al. (2006), such differential treatment might be interpreted as discrimination because students may not identify with being a "model minority" and feel stressed

to match these stereotypes. Alternatively, Chinese adolescents might have experienced discrimination from adults who look down on their culture (Rosenbloom & Way, 2004). After controlling for parental education, there were no ethnic differences in reports of peer discrimination. This suggests that, regardless of ethnicity, many adolescents experience peer-based ethnic discrimination. Educators and policy-makers should be particularly concerned because both peer and adult ethnic discrimination was found to be negatively associated with grades both in this study and others (Wong et al., 2003),

There were also gender differences in perceptions of adult discrimination, with adolescent boys reporting more perceptions of adult discrimination than adolescent girls. One reason for this finding could be that, according to social dominance theory (Sidanius & Pratto, 1999), societies consist of systems of group-based social hierarchies. Those at the top of the hierarchy are men, and because men have more social and political power compared to women, discrimination and negative stereotypes are often targeted at men (Sidanius & Viniegas, 2000). Thus adolescent boys may be more aware of discrimination that might decrease their status. However, it is unclear whether adolescent boys actually experience more ethnic discrimination, or if they are more sensitive to it and therefore perceive more discrimination.

Despite significant positive correlations among all dimensions of ethnic socialization with perceptions of both adult and peer ethnic/racial discrimination, we found no evidence that any type of ethnic socialization message moderated the link between discrimination and achievement. This may be attributed to the ambiguous directionality of the relationship between discrimination and ethnic socialization. That is, it is unclear whether ethnic socialization made adolescents more perceptive of discrimination, or whether adolescents' perceptions of discrimination elicited discussions about these experiences with their parents. It is possible that

adolescents who perceived themselves to be victims of discrimination may have experienced declines in achievement and wanted to talk to their parents to better cope with these incidences. Thus, ethnic socialization may be associated with discrimination, but may not buffer declines in achievement that already occurred.

In interpreting the prevalence of ethnic socialization, discrimination, and their implications for adolescents' academic adjustment, some limitations to this current study should be addressed. First, because our data were collected at one time point, and our analyses were correlational, it is difficult to determine the causal direction between factors such as ethnic discrimination and ethnic socialization. Future longitudinal studies could help elucidate the direction of the association between discrimination and ethnic socialization, and to what extent the relationship between ethnic socialization and academic adjustment changes over time.

In addition, our study measured adolescent reports of *explicit* ethnic socialization in general. Future research that focuses on the role of ethnic socialization in academic adjustment should examine ethnic socialization messages that are specific to the school domain. For example, how often do parents prepare children for bias from teachers? Such domain specific ethnic socialization may have stronger associations with the academic adjustment of adolescents. Future work should also use other methods to assess ethnic socialization such as acquiring parent reports or asking about socialization from other people or sources (Hughes et al., 2006b). Receiving ethnic socialization from many sources may explain why adolescents reported such low levels of messages overall - with mean levels indicating that they received less than three explicit messages a year. Although some research indicates that ethnic socialization messages tend to increase in frequency and include more messages about bias as children age (Hughes & Chen, 1997), research has not examined whether ethnic socialization peaks and then declines in

later adolescence. It is also possible that by late adolescence (i.e. 11th grade), the frequency of explicit ethnic socialization by parents may have decreased in frequency. Regardless of cause, this low frequency of ethnic socialization is consistent with Hughes and Chen's (1997) work which found that while African American parents did not frequently racially socialize their children, when they did, cultural socialization was the most common method.

Lastly, because there are many cultural and economic differences within ethnic groups from Asia and Latin America, this study should be replicated among diverse populations from these backgrounds before broader generalizations are made.

Despite these limitations, this present study furthers our understanding of the normative development of ethnic minority adolescents. These results are consistent with an emerging body of research that suggests that identification with one's ethnic group or cultural traditions seems to have positive implications for the adjustment of adolescents (e.g. Fuligni, 2001; Fuligni et al., 2005; Wong et al., 2003). Such work suggests that interventions or programs should consider including a component that facilitates these identification processes for the academic adjustment for children and adolescents. If our results are replicated, it may be a priority for those invested in establishing diversity in higher education to work with parents and educators to increase the frequency of cultural socialization and decrease the frequency of mistrust messages.

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Table 1

*Sample Size According to Ethnic Background and Generation*

Generation	Ethnic background			Total
	Mexican	Chinese	European	
First	40	54	12	106
Second	109	121	39	269
Third	29	5	110	144
Unknown	2	0	3	5
Total	180	180	164	524

*Note.* First refers to adolescents born outside of the United States, second refers to adolescents born in the United States with at least one foreign-born parent, and third refers to adolescents born in the United States with two American-born parents.

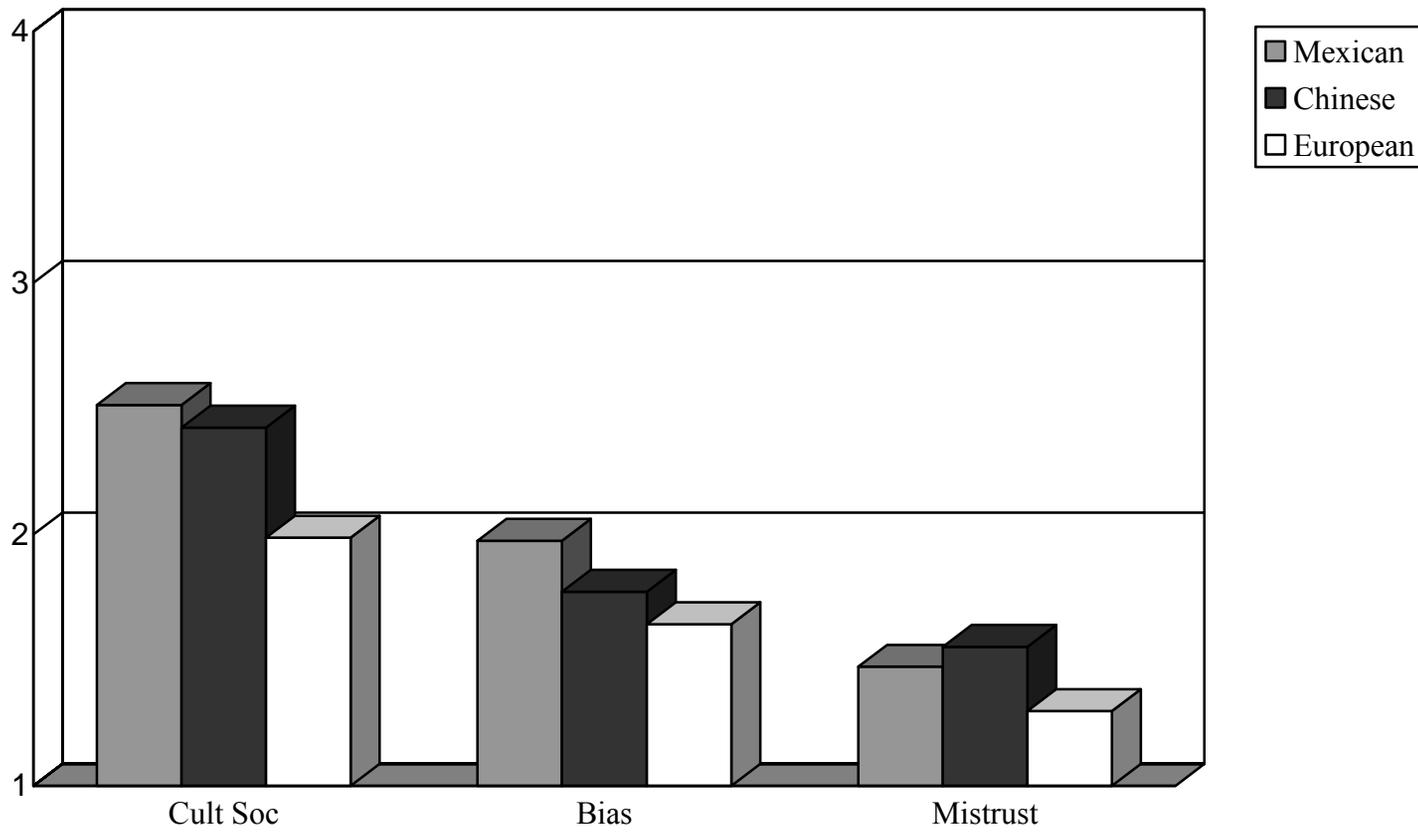


Figure 1. Ethnic differences in reported frequency of ethnic socialization messages. Cult Soc = cultural socialization, Bias = preparation for bias, Mistrust = promotion of mistrust.

Table 2

*Ethnic Socialization Predicting Academic Attitudes*

	Academic Outcomes											
	Intrinsic value of school			Utility value of school			Academic value			School self-concept		
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$
Mexican	.19	.13	.10	.12	.11	.07	.01	.10	.01	-.22*	.10	-.14
Chinese	.09	.12	.04	.13	.10	.08	.28**	.09	.17	-.02	.09	-.10
Parental Edu	-.02	.03	-.03	-.07*	.03	-.13	-.04	.03	-.08	.06*	.03	.11
Cult. Soc.	.20***	.05	.20	.18***	.05	.20	.08+	.04	.10	.04	.04	.05
Bias	-.12+	.07	-.10	-.10+	.06	-.10	.05	.06	.05	.05	.06	.05
Mistrust	-.09	.06	-.08	-.05	.05	-.05	-.07	.05	-.08	-.08	.05	-.08

*Note.* Cult. Soc. = Cultural socialization, Bias = Preparation for bias, Mistrust = Promotion of mistrust, Mexican = dummy variable for adolescents from Mexican backgrounds, Chinese = dummy variable for adolescents from Chinese backgrounds. Adolescents with European backgrounds are the reference group. +  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

Table 3

*Ethnic Socialization Predicting GPA*

	GPA		
	<i>b</i>	<i>SE</i>	$\beta$
Mexican	-.37***	.10	-.23
Chinese	.30**	.09	.18
Parental edu	.07**	.03	.14
Cultural soc.	-.03	.04	-.03
Bias	-.04	.05	-.05
Mistrust	-.13**	.05	-.14

*Note.* Cultural Soc. = Cultural socialization, Bias = Preparation for bias, Mistrust = Promotion of mistrust, Mexican = dummy variable for adolescents from Mexican backgrounds, Chinese = dummy variable for adolescents from Chinese backgrounds. Adolescents with European backgrounds are the reference group. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

Table 4

*Ethnic Differences in Academic Attitudes*

Academic attitudes	Mexican		Chinese		European		<i>F</i>	$\eta^2$
	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>		
Intrinsic value of school	2.70 <sub>a</sub>	.07	2.50 <sub>a,b</sub>	.07	2.36 <sub>b</sub>	.08	5.25	.02
Utility value of school	3.69 <sub>a</sub>	.06	3.56 <sub>a</sub>	.06	3.26 <sub>b</sub>	.06	12.38	.05
Academic value	3.96 <sub>a</sub>	.06	4.06 <sub>a</sub>	.06	3.71 <sub>b</sub>	.06	10.29	.04
School self-concept	3.40 <sub>a</sub>	.06	3.58 <sub>a,b</sub>	.06	3.65 <sub>b</sub>	.06	5.05	.02

Note. Means in the same row that do not share subscripts differ at  $p < .05$  using a Bonferonni correction.  $dfs = 2, 517-520$ .

\*  $p < .05$ . \*\*  $p < .01$ .

Table 5

*Mediating Conditional Ethnic Differences in Academic Attitudes with Cultural Socialization*

Academic Attitude	Total effect	SE	Indirect effect	SE	Z	Percentage of total effect
Mexican						
Intrinsic value of school	.53***	.11	.08	.03	2.76**	13.79
Utility value of school	.48***	.10	.09	.03	3.10**	17.92
Academic value	.42***	.08	.08	.02	3.16**	17.86
School self concept	-.02	.08				
Chinese						
Intrinsic value of school	.13	.11				
Utility value of school	.27**	.09	.09	.09	3.13**	31.48
Academic value	.30***	.08	.07	.02	3.19**	24.67
School self concept	-.19**	.07				

*Note.* Total effect refers to the sizes of the differences in academic attitudes between the ethnic minority adolescents and the adolescents with European backgrounds that exist after controlling for students' GPA. Indirect effect refers to the effects of ethnicity

on academic attitudes, through cultural socialization.  $Z$  refers to the tests of the statistical significance of the indirect effects, and the percentage of total effect refers to the proportions of the total effects (i.e., the initial ethnic differences) that were accounted for by the indirect effects. Mediation analyses were conducted only when Mexican or Chinese adolescents initially showed more positive academic attitudes than their equally achieving peers from European backgrounds (i.e., when a total effect was positive and significant). \*  $p < .05$ . \*\*  $p < .01$ .

Table 6

*Correlations Between Ethnic Socialization and Discrimination*

Ethnic Socialization	Peer	Adult
	Discrimination	Discrimination
Cultural socialization	.27**	.29**
Preparation for bias	.44**	.51**
Promotion of mistrust	.34**	.37**

\*  $p < .05$ . \*\*  $p < .01$ .