Family, School, and Neighborhood: Links to Chinese American Adolescent Perceptions of Racial/Ethnic Discrimination

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The purpose of the study was to examine how family, school, and neighborhood factors contributed to Chinese American adolescent perceptions of discrimination. The sample included 185 Chinese American adolescents (mean age = 16.8 years, SD = .81; 58% female; 70% U.S.-born) and their parents. As hypothesized, the results showed that greater parent perceptions of discrimination, more negative school environment, and less availability of cultural resources were related to greater adolescent perceptions of discrimination. Contrary to the hypothesis, parent/adolescent subjective perceptions of ethnic density were related to greater adolescent perceptions of discrimination. The findings suggest that adolescent perceptions of discrimination are related to both within and outside family factors, supporting an ecological approach to understanding racial/ethnic discrimination.

Keywords: racial/ethnic discrimination, Chinese American adolescent, family

Experiencing racial/ethnic discrimination is a part of life for many Asian Americans (Alvarez & Juang, 2010; Alvarez, Juang, & Liang, 2006; Goto, Gee, & Takeuchi, 2002; Grossman & Liang, 2008; Liang, Grossman, & Deguchi, 2007; Way, Santos, Niwa, & Kim-Gervey, 2008; Ying, Lee, & Tsai, 2000). This is a cause for concern as racial/ethnic discrimination is consistently linked to poorer adjustment for Asian American adolescents (in terms of lower self-esteem, less school engagement, poorer grades, and greater depressive symptoms, alienation, somatization, and loneliness) (Benner & Kim, 2009a; Greene, Pahl, & Way, 2006; Juang & Alvarez, 2010; Juang & Cookston, 2009) and for Asian American college students and adults (in terms of lower social competence, social connectedness, self-esteem, and greater substance abuse, depressive symptoms, psychological distress, risk for chronic illness—heart disease, pain, and respiratory illnesses—and suicidal ideation and attempts) (Alvarez & Juang, 2010; Cheng et al., 2010; Gee, Ro, Shariff-Marco, & Chae, 2009; Gee, Spencer, Chen, & Takeuchi, 2007; Lee, 2005; Noh & Kasper, 2003; Ying et al., 2000; Yip, Gee, & Takeuchi, 2008). Although there is a growing literature documenting the negative effects associated with experiencing racial/ethnic discrimination among Asian Americans, little is known about the particular contexts of discrimination (Niwa, Way, Qin, & Okazaki, in press). To address this gap in the literature, we focus on family, school, and neighborhood contexts that contribute to Chinese American adolescent perceptions of discrimination.

We draw on ecological systems theory (Bronfenbrenner, 1979) to provide a framework for our study. This theoretical approach emphasizes the interplay between adolescents’ individual characteristics and contexts that range from the microsystem to the macrosystem. An important principle is that children are active producers of their development—they not only live within multiple, embedded contexts, but, based on their personal characteristics, they also shape the contexts in which they live. Based on this approach, we focus on several key contexts to understand adolescent perceptions of discrimination: family, school, and neighborhood.

We chose to focus on the family because, unequivocally, parents and families are important sources of socialization and support during adolescence (Moore, Chalk, Scarpa, & Vandiv-
ere, 2002). Thus, focusing on the family is developmentally appropriate. Another reason is that for Chinese-heritage individuals, there is a strong emphasis on the importance of the family (e.g., family obligation and filial piety are central cultural values) (Bond & Hwang, 1986; Uba, 1994). As such, to understand the development of Chinese American adolescents, one must take into account the key role of the family. We also focus on the school context because, apart from the family, adolescents spent a considerable amount of time in school. In school, adolescents are exposed to peer victimization in various forms (Smith, 2004), including race- and ethnic-based discrimination (e.g., Rosenbloom & Way, 2004). Finally, we focused on the neighborhood context to tap into another ecological level that has been missing from studies of discrimination. Most studies have included objective measures of neighborhood (such as number of coethnics) (e.g., Alvarez et al., 2006) and not subjective perceptions of neighborhood (with the exception of Goto et al., 2002) in relation to discrimination. In our study, we include both objective and subjective perceptions of the neighborhood. Thus, we examine Chinese American adolescents’ perceptions of discrimination as a function of their personal characteristics (such as immigration status) and key contexts (i.e., the family, school, and neighborhood).

Parent Perceptions of Discrimination

Scholars of various disciplines—psychologists, sociologists, and anthropologists—have long emphasized the important role of the family, and especially parents, to child and adolescent development. For instance, challenges that parents face (such as experiencing financial difficulties) and resultant stress, can and do affect their children (Mistry, Benner, Tan, & Kim, 2009). One important challenge for ethnic minority parents is dealing with racial/ethnic discrimination (Hughes et al., 2006). Although there is a robust literature on adult experiences of discrimination and growing literature on adolescent experiences of discrimination, very few studies have examined how discrimination may be linked within members of the same family. The few studies linking parent experiences of discrimination to adolescent experiences of discrimination have focused on racial socialization and parental stress. Studies of Black youth have found that parents’ experiences with discrimination shaped parents’ racial socialization practices that then influenced children’s perceptions of discrimination (Stevenson, Cameron, Hererro-Taylor, & Davis, 2002). Along the same lines, Asian American college students whose parents prepared them for racial bias tended to demonstrate a greater awareness of racism (Alvarez et al., 2006). In addition, a study by Benner and Kim (2009b) showed that Chinese American parents’ experiences of discrimination were linked to adolescent experiences of discrimination via parental stress. The authors argued that parents’ experience with discrimination created a stressful family context, which was then transmitted into greater adolescent perceptions of discrimination. Our study extends these previous studies by examining simultaneously how both within family factors (i.e., parent perceptions of discrimination) and outside family factors (i.e., the school and neighborhood contexts), contribute to adolescent perceptions of discrimination.

School Environment

Studies with Asian American adolescents have shown that a supportive school environment is associated with positive adolescent well-being. For example, a longitudinal study of Black, Latino, and Asian American adolescents found that more positive perceptions of the school environment was related to increases in self-esteem and decreases in depressive symptoms (Way & Robinson, 2003). Another study of Chinese American, Chinese, and European Americans found that adolescents who reported more negative perceptions of the school also reported greater depression and social stress (having stressful social relationships and feeling isolated from social activities) (Zhou, Peverly, Xin, Huang, & Wang, 2003). Notably, Chinese American adolescents had more negative perceptions of their school compared to Chinese (from Mainland China) and European American students. Based on this literature, we hypothesized that adolescents reporting a less supportive school environment would experience and perceive greater racial/ethnic discrimination. Within the school context, Asian American adolescents report higher levels of peer discrimination compared to African and Latino adoles-
Neighborhood Ethnic Density and Availability of Cultural Resources

Ethnic density (i.e., the number of same-ethnic members in one’s neighborhood) can also contribute to adolescent perceptions of discrimination. A study of Filipino adults found that Filipinos in Honolulu perceived less discrimination compared to Filipinos in San Francisco. Filipinos made up a larger percent of the population in Honolulu (12%) than in San Francisco (5%) (Gee et al., 2006). And, in another study of Asian American college students, Filipinos reported greater perceptions of discrimination compared to Chinese in San Francisco, a city with a much higher density of Chinese (20%) compared to Filipino (5%) (Alvarez et al., 2006; City and County of S.F. Human Rights Commission, 2006). Finally, in a study of Chinese Americans, adults perceived greater discrimination if they lived in a neighborhood with few Chinese (Goto et al., 2002). These studies suggest that living among fewer coethnics may expose individuals to greater experiences of racial/ethnic discrimination. However, another study of Asian American college students reported that foreign-born students perceived higher levels of discrimination than U.S. born students (Ying et al., 2000). Another study of Asian American adults found that immigration status moderated the link between discrimination and mental health—the negative effects of discrimination were less pronounced for foreign-born compared to U.S. born Asian Americans (Yip et al., 2008). Nonetheless, a recent review of the empirical literature on Asian Americans’ experiences of racial discrimination found only four studies that investigated the role of immigration status as a moderator (Gee et al., 2009). The results across these four studies were inconsistent. In our study, we explored whether immigration status moderated the effects of family, school, and neighborhood contexts on adolescent perceptions of discrimination. Because of the limited number of studies, we had no specific predictions about how immigration status would moderate the predictor variables. Therefore, these analyses are considered exploratory.

Immigration Status and Discrimination

Chinese American adolescents are a diverse group. One meaningful point of variation is immigration status (Berry, Phinney, Sam, & Vedder, 2006). For instance, a study of Chinese American college students reported that foreign-born students perceived higher levels of discrimination than U.S. born students (Ying et al., 2000). Another study of Asian American adults found that immigration status moderated the link between discrimination and mental health—the negative effects of discrimination were less pronounced for foreign-born compared to U.S. born Asian Americans (Yip et al., 2008). Nonetheless, a recent review of the empirical literature on Asian Americans’ experiences of racial discrimination found only four studies that investigated the role of immigration status as a moderator (Gee et al., 2009). The results across these four studies were inconsistent. In our study, we explored whether immigration status moderated the effects of family, school, and neighborhood contexts on adolescent perceptions of discrimination. Because of the limited number of studies, we had no specific predictions about how immigration status would moderate the predictor variables. Therefore, these analyses are considered exploratory.

Summary of Hypotheses

We hypothesized that (1) greater parent reports of discrimination; (2) more negative perceptions of the school environment; (3) lower numbers of coethnics (less ethnic density) and fewer available cultural resources, would predict greater adolescent perceptions of discrimination; and (4) immigration status would moderate the effects of family, school, and neighborhood variables on adolescent perceptions of discrimination.

Method

Setting

The data for this study was taken from a 2-year, three-wave longitudinal study of Chinese American adolescents and their parents...
from San Francisco, an ethnically diverse city with 43.6% European Americans, 30.9% Asian and Pacific Islanders, 7.8% African Americans, 14.1% Latino Americans, 1.2% Native Americans, and 10.8% other/mixed race (City and County S.F. Human Rights Commission, 2006). We recruited adolescents from two high schools where over half of the student bodies in each school were from Chinese immigrant backgrounds. Overall, the school contexts reflected a diversity of ethnic groups, as did the broader community, but the schools included an overrepresentation of Asians, and in particular, students of Chinese backgrounds. To achieve an adequate sample size with sufficient power for multivariate analyses, we targeted these two schools precisely because they had a higher proportion of Chinese students. Thus, these two schools do not represent the ethnic distribution of the broader San Francisco community. These unique school and community contexts must be kept in mind when interpreting the results of the study and considering its generalizability.

Procedure

The first author made announcements to school assemblies and afterschool clubs geared toward students of Chinese background and by posting fliers in the two high schools. The first author told students that we were interested in their experiences as Chinese and Chinese American adolescents. Adolescents who obtained a signed guardian/parent consent form and signed an assent form were invited to participate. The survey was completed during classroom hours or immediately after school. Parents were not present at the time. Adolescents were told their responses were confidential and that responses would not be shared with either the parent or other adolescents. When adolescents completed the survey they were given a parent survey with an addressed, stamped envelope to take home and have parents mail back. Parents and adolescents were each compensated $15 for participating in each of the first two waves (Times 1 and 2) and $20 for the third wave (Time 3) of data collection.

Surveys were offered in English and Chinese. The English version was translated into Chinese by three bilingual adults who were fluent in both English and Chinese. All of the adults were born outside of the U.S. (two in Taiwan and one in Hong Kong) and had subsequently immigrated to the U.S. in adolescence and young adulthood. Translators of different age ranges were chosen (one translator was over 60 years old, the other two between 25 and 30 years old) and who were familiar with both Mandarin and Cantonese to account for variations in the Chinese language because of cohort and geographical differences. All study procedures and measures were approved by the authors’ university institutional review board.

Participants

For this study, only Time 3 data were used (with the exception of one variable—adolescent perception of discrimination at Time 1) because of the additional adolescent school and community measures that were included at Time 3. The sample was further restricted to those adolescents whose parents completed the survey. The final sample consisted of 185 (59% of the larger adolescent sample of 316 at Time 1) Chinese American adolescents and their parents. The adolescents’ mean age was 16.8 years ($SD = .81$), ranged from 15 to 19 years, and 58% were female. A majority (70%) of the adolescents were U.S. born while 30% percent were foreign-born. Most of the adolescents grew up with both parents (90%).

Mostly mothers (69%) filled out the parent survey. Almost all (93%) parents were born outside the U.S. and the mean age was 48.3 years ($SD = 4.48$). Concerning maternal education, 7% completed elementary school or less, 11% attended middle school, 15% attended some high school, 30% graduated from high school, 16% attended some college or university, and 20% graduated from college/university or more. Concerning paternal education, 8% completed elementary school or less, 17% attended middle school, 13% attended some high school, 28% graduated from high school, 15% attended some college or university, and 20% graduated from college/university or more. Maternal and paternal education were correlated at $r = .69$ ($p < .001$). A new variable was created (parent education) representing the highest level of education attained by either parent. This variable was used in all analyses.

To test whether the adolescents with parent data differed from adolescents without parent data, adolescents were compared on age, gender
distribution, immigration status (U.S. born vs. foreign-born), parent education, and adolescent perceived discrimination. The results showed that adolescents with parent data did not differ from adolescents without parent data concerning age, \( t(257) = -0.6, p = .95 \), gender distribution, \( \chi^2(1) = 0.26, p = .61 \), immigration status, \( \chi^2(1) = 1.56, p = .21 \), mother education, \( t(245) = -0.40, p = .69 \), father education, \( t(239) = -0.30, p = .78 \), or adolescent perceived discrimination, \( t(255) = -0.68, p = .50 \).

**Measures**

The measures for discrimination, availability of cultural resources, and perceptions of neighborhood ethnic density were completed separately by the adolescent and parent. The measure for school environment was completed by the adolescent only. Adolescent discrimination measured at Time 1 was used as a control variable. All other variables included in analyses were measured at Time 3.

**Perceived discrimination.** Adolescents’ and parents’ perceptions of discrimination (Gil & Vega, 1996) were measured by three items: “How often have you been treated unfairly because you are Asian?” “How often do people dislike you because you are Asian?” and “How often have you seen friends or family be treated unfairly because they are Asian?” Respondents answered on a scale ranging from (1) never to (5) always. Mean scores were calculated so that a higher score indicated greater discrimination. At Time 1, Cronbach’s alpha for adolescent discrimination was .83. At Time 3, Cronbach’s alpha for adolescents was .82, and for parents, .89.

**School environment.** Negative perceptions of the school environment were measured by three items based on two dimensions important in assessing the school environment—perceptions of safety and positive/negative experiences in school (Brand, Felner, Shim, Seitsinger, & Dumas, 1993). The items were “Some students think their school is safe but others think their school is unsafe. Do you think your school is . . .”. Some students think their school is friendly but others think their school is unfriendly. Do you think your school is . . .”. “Some students are nervous when they are in school but others are relaxed. When you are in school are you . . . “The response scales ranged from (1) very safe to (3) not at all safe, (1) very friendly to (3) not at all friendly, and (1) very relaxed to (3) not at all relaxed, respectively. Mean scores were calculated so that a higher score indicated more negative perceptions of the school environment. Cronbach’s alpha was .81.

**Availability of cultural resources.** Adolescent and parent perceptions of cultural resources available in their community were measured by seven items (Juang, 2004). The respondents were presented with a list of cultural resources (i.e., Chinese-based businesses such as stores and restaurants, community centers, community events such as street fairs and parades, language schools, organization/clubs, places of worship such as churches and temples, and media such as TV and newspapers), and were asked to indicate whether these resources were available in the community. The response scale ranged from (1) not available to (5) easily available. Mean scores were calculated so that a higher score indicated greater availability of cultural resources. Cronbach’s alpha for adolescents was .88, and for parents, .88. Parent and adolescent scores correlated at \( r = .29 \) (\( p < .001 \)).

**Ethnic density of neighborhood.** The ethnic density of the youth’s neighborhood was measured in two ways. First, parents and adolescents were asked about their subjective perception of their neighborhood: “How do you describe the ethnic composition of your neighborhood?” (Phinney, Fergusen, & Tate, 1997). The response scale ranged from (1) Nearly all from different groups, (2) Mostly from different groups, (3) About equal, own and other groups, (4) Mostly from own group, and (5) Nearly all from own group. This item has been linked to peer interactions, acculturation, and language use (Berry et al., 2006; Phinney et al., 1997). We combined and averaged parent and adolescent scores so that higher scores indicated more same-ethnic members in the neighborhood. Parent and adolescent scores correlated at \( r = .39 \) (\( p < .001 \)). The second measure of ethnic density was calculated from using zip code data, based on the addresses of the families. Based on city statistics, the percentage of Asian Americans residing in each zip code district was assigned to each adolescent, ranging from 12% or less, to 63% or greater. Thus, for ethnic density we had a subjective measure (adolescent and parent perceptions of their neighborhood), and
an objective measure (zip code data). These two scores were correlated at \( r = .42 \) (\( p < .001 \)).

**Results**

**Preliminary Analyses and Descriptives**

There were few data missing (no greater than 5%) for each variable. Little’s MCAR test in SPSS (SPSS 17.0) showed that the data were missing completely at random (\( \chi^2 = 21.93, df = 39, p = .998 \)). Thus, in all further analyses we used listwise deletion. However, to ensure that missingness was not a problem, we also used SPSS Multiple Imputation and reran analyses (hierarchical regression) with missing data imputed. The pooled results replicated the original data results with listwise deletion. We report the results using listwise deletion here.

See Table 1 for descriptives and zero-order correlations of the main study variables. Adolescent discrimination was positively correlated with parent discrimination and negative school environment. To test how demographic variables (adolescent age, school, gender, years lived in the U.S., immigration status, and parent education) related to adolescent perceptions of discrimination, bivariate correlational analyses (two-tailed) were used if the demographic variables were ordinal and independent \( t \)-tests if they were nominal. Adolescents’ gender, years lived in the U.S., and parent education did not relate to adolescent perceptions of discrimination. Adolescents’ age was positively correlated with adolescent perceptions of discrimination \( (r = .17, p = .02) \). School was also related such that adolescents from one school \( (M = 2.23, SD = .84) \) reported higher perceptions of discrimination than adolescents from the other \( (M = 1.86, SD = .74) \), \( t(174) = -3.06, p = .003 \). Finally, immigration status was also related, such that foreign-born adolescents \( (M = 2.20, SD = .90) \) reported higher discrimination compared to U.S. born adolescents \( (M = 1.94, SD = .75) \), \( t(180) = 2.08, p = .039 \).

In light of these significant findings, we controlled for age, school, and immigration status in subsequent analyses. Finally, parents \( (M = 2.51, SD = .81) \) reported higher levels of discrimination than adolescents \( (M = 2.02, SD = .80) \).

**Testing the Hypotheses**

We used hierarchical multiple regression to test the hypotheses. All variables included in interactions were first centered to reduce multicollinearity. In Step 1, the demographic and control variables were entered as a block—adolescent age, school, immigration status, and adolescent discrimination at Time 1. In Step 2, the parent discrimination variable was entered. In Step 3, the school environment variable was entered. In Step 4, the community variables were entered as a block—adolescent perceptions of availability of cultural resources, parent perceptions of availability of cultural resources, parent/adolescent subjective perceptions of ethnic density, and ethnic density based on zip code data. Finally, in Step 5, six interactions were entered as a block testing whether adolescent immigration status interacted with family, school and neighborhood variables. We used stepwise hierarchical regression to examine how each contextual level (family, school, neighborhood) accounted for variance in the

**Table 1**

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Mean (SD)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perceived discrimination (A)</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.02 (.80)</td>
<td>1–5</td>
</tr>
<tr>
<td>2. Perceived discrimination (P)</td>
<td>.17*</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.51 (.82)</td>
<td>1–5</td>
</tr>
<tr>
<td>3. School environment (A)</td>
<td>.25**</td>
<td>.14</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td>1.75 (.41)</td>
<td>1–3</td>
</tr>
<tr>
<td>4. Available cultural resources (A)</td>
<td>-.13</td>
<td>.17*</td>
<td>-.17</td>
<td>--</td>
<td></td>
<td></td>
<td>3.65 (.87)</td>
<td>1–5</td>
</tr>
<tr>
<td>5. Available cultural resources (P)</td>
<td>-.04</td>
<td>.01</td>
<td>-.07</td>
<td>.30***</td>
<td>--</td>
<td></td>
<td>3.22 (.87)</td>
<td>1–5</td>
</tr>
<tr>
<td>6. Neighborhood ethnic density (P/A)</td>
<td>.06</td>
<td>-.01</td>
<td>-.05</td>
<td>.24**</td>
<td>.25**</td>
<td>--</td>
<td>3.14 (.96)</td>
<td>1–5</td>
</tr>
<tr>
<td>7. Neighborhood ethnic density*</td>
<td>-.10</td>
<td>-.13</td>
<td>-.12</td>
<td>.16*</td>
<td>.13</td>
<td>.42***</td>
<td>46.34 (8.01)</td>
<td>15–63</td>
</tr>
</tbody>
</table>

*Note.*  A = adolescent report, \( p = \) parent report.

* * * Percentage of Asians by zip code district.

* \( p < .05 \).  ** \( p < .01 \).  *** \( p < .001 \).
dependent variable (adolescent perceptions of discrimination at Time 3).

The results showed that the model was significant for Step 1 ($R^2 = .24$, $F(4, 167)$ change = 13.3, $p < .001$); age and immigration status did not predict adolescent discrimination at Time 3 but school and adolescent discrimination at Time 1 did. One school reported greater perceptions of discrimination than the other and adolescent perceptions of discrimination at Time 1 were linked to greater adolescent perceptions of discrimination at Time 3. The model was significant for Step 2 ($R^2 = .03$, $F(1, 166)$ change = 5.95, $p = .016$); greater parent discrimination predicted greater adolescent discrimination. The model was significant for Step 3 ($R^2 = .04$, $F(1, 165)$ change = 8.66, $p = .004$); a more negative school environment predicted greater adolescent discrimination. The model was significant for Step 4 ($R^2 = .06$, $F(4, 161)$ change = 3.89, $p = .005$); adolescent perceptions of lower availability of cultural resources and parent/adolescent subjective perceptions of greater ethnic density predicted more adolescent discrimination. The model was significant for Step 5 ($R^2 = .07$, Total $R^2 = .44$, $F(6, 155)$ change = 2.99, $p = .009$). The only interaction that emerged was immigration status by parent discrimination. To clarify this interaction, we ran separate regressions by immigration status. Post hoc analyses showed that parent discrimination was related to adolescent discrimination for foreign-born adolescents ($b = .52$, $p = .001$), but not for U.S. born adolescents $b = .02$, $p = .85$ (see Figure 1).

An examination of the regression coefficients and change in $R^2$ showed that adolescents’ perception of discrimination at Time 1 was the strongest predictor of adolescent discrimination 2 years later at Time 3. When Time 1 discrimination was accounted for, parent/adolescent subjective perceptions of neighborhood ethnic density and the immigration status by parent discrimination interaction showed the next largest effect sizes.

In summary, as hypothesized, greater parent perceptions of discrimination (at least for foreign-born adolescents), more negative school environment, and less availability of cultural resources were related to greater adolescent perceptions of discrimination. Contrary to the hypothesis, however, greater ethnic density was related to greater adolescent perceptions of discrimination. See Table 2 for a summary of regression results.

**Discussion**

Although a growing number of studies have documented the negative consequences of experiencing racial/ethnic discrimination among Asian American populations, far fewer studies have explored the contexts in which discrimination is perceived (Niwa et al., in press). The purpose of the study was to examine how family, school, and neighborhood factors related to Chinese American adolescent perceptions of discrimination. The results showed that parent discrimination, negative school environment, availability of cultural resources, and subjective perceptions of ethnic density were linked to adolescent perceptions of discrimination.

We found that parents reported higher levels of discrimination than adolescents, similar to Benner and Kim (2009b). This could be because of the greater percentage of foreign-born in the parent sample compared to the adolescent sample. Other studies of Asian Americans have documented that foreign-born individuals report higher instances of discrimination compared to U.S. born (Ying et al., 2000). Perhaps foreign-born individuals are more visible targets of discrimination because of characteristics (e.g., having an accent) that may mark them as “other” (Ancheta, 2001). It may also be the case that foreign-born individuals are primed to experience discrimination as they know they are the ones who must adjust to a new country.

![Figure 1](image-url)  
*Figure 1.* Regression lines for relations between parent discrimination and adolescent discrimination as moderated by adolescent immigration status (a two-way interaction). $b =$ unstandardized regression coefficient.
As hypothesized, parent discrimination positively related to adolescent discrimination, over and above adolescent discrimination reported at Time 1. Our findings support other studies reporting a positive relation between parent and adolescent discrimination (Brenner & Kim, 2009b). Previous studies have suggested that this link may be explained by parent racial socialization (Hughes et al., 2006; Stevenson et al., 2003) and parental stress (Benner & Kim, 2009b). However, in our study, parent discrimination related to adolescent discrimination only for adolescents who were foreign-born, and not U.S. born. Parents (almost all were foreign-born) and their foreign-born adolescents may share greater similarities with one another—having to learn the English language, becoming familiar with U.S. customs and values, and engaging in greater efforts in adapting and adjusting to a new country—compared to parents and their U.S. born adolescents. These similarities may underlie comparable (or linked) perceptions of discrimination for parents and their foreign-born adolescents. For instance, both may be more likely to be experience discrimination because of language skills or accent than a U.S. born adolescent. U.S. born adolescents who speak English fluently and are intimately knowledgeable about the U.S. culture may differ considerably from their parents in experiences of discrimination. Thus, commonalities in experiences of discrimination between parents and their foreign-born children may reflect commonalities in experiences as immigrants. Our findings highlight the need to consider immigration status in studies of discrimination and also the importance of examining experiences of discrimination as a family.

We also found that adolescents who reported more negative school environment also reported greater discrimination. We did not have data concerning the source of discrimination but other research has suggested that experiencing discrimination by peers in school is a common experience, particularly for Chinese American adolescents (Grossman & Liang, 2008; Niwa et al., in press; Rosenbloom & Way, 2004). It is not surprising then that greater perceptions of discrimination are related to a more negative perception of the school. Because we only had cross-sectional data with the school environment variable, however, we could not test the direction of effects. Future research could explore whether it is a poor school environment that leads to greater perceptions of racial/ethnic discrimination, or the other way around. Either

<table>
<thead>
<tr>
<th>Variable and step</th>
<th>B (SE)</th>
<th>β</th>
<th>ΔR²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1: Adolescent age</td>
<td>.01 (.07)</td>
<td>.01</td>
<td>.24***</td>
</tr>
<tr>
<td>School</td>
<td>.32 (.11)</td>
<td>.20**</td>
<td></td>
</tr>
<tr>
<td>Immigration statusb</td>
<td>−.25 (.13)</td>
<td>−.14</td>
<td></td>
</tr>
<tr>
<td>Discrimination at time 1 (A)</td>
<td>.51 (.08)</td>
<td>.43***</td>
<td></td>
</tr>
<tr>
<td>Step 2: Parent discrimination (P)</td>
<td>.17 (.07)</td>
<td>.16*</td>
<td>.03*</td>
</tr>
<tr>
<td>Step 3: School environment (A)</td>
<td>.29 (.13)</td>
<td>.15*</td>
<td>.04**</td>
</tr>
<tr>
<td>Step 4: Availability of cultural resources (P)</td>
<td>.05 (.06)</td>
<td>.05</td>
<td>.06**</td>
</tr>
<tr>
<td>Availability of cultural resources (A)</td>
<td>−.18 (.06)</td>
<td>−.20**</td>
<td></td>
</tr>
<tr>
<td>Neighborhood ethnic density (P/A)</td>
<td>.19 (.06)</td>
<td>.23**</td>
<td></td>
</tr>
<tr>
<td>Neighborhood ethnic density (zip code data)</td>
<td>.01 (.01)</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>Step 5: Immigration status × discrimination (P)</td>
<td>−.52 (.15)</td>
<td>−.23**</td>
<td>.07**</td>
</tr>
<tr>
<td>Immigration status × school environment (A)</td>
<td>.19 (.28)</td>
<td>.05</td>
<td></td>
</tr>
<tr>
<td>Immigration status × cultural availability (P)</td>
<td>.25 (.14)</td>
<td>.14</td>
<td></td>
</tr>
<tr>
<td>Immigration status × cultural availability (A)</td>
<td>−.01 (.01)</td>
<td>−.03</td>
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<tr>
<td>Immigration status × ethnic density (P/A)</td>
<td>−.20 (.14)</td>
<td>−.10</td>
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<tr>
<td>Immigration status × ethnic density (zip code data)</td>
<td>.15 (.14)</td>
<td>.08</td>
<td></td>
</tr>
</tbody>
</table>

Note. A = Adolescent report, P = parent report.

a School was dummy-coded as 1 = School 1, 2 = School 2. b Immigration status was dummy-coded as 1 = foreign-born and 2 = U.S. born.

*p < .05. **p < .01. ***p < .001.
way, knowing that Chinese American adolescents who perceive their school as an unfriendly and unsafe place, may also indicate that they are at risk for experiencing racial/ethnic discrimination.

Aspects of the neighborhood also related to adolescent perceptions of discrimination. Adolescents who perceived greater availability of cultural resources perceived less discrimination. Having access to cultural resources may facilitate connection to one’s ethnic group and support for one’s cultural background (Phinney, 2003), which may offset or protect adolescents from discrimination. In a different context with fewer cultural resources available—where being Chinese may be more difficult and less valued—adolescents may be at risk for experiencing greater discrimination.

Our objective measure of ethnic density (based on zip code data) did not relate to perceptions of discrimination. However, the subjective perceptions of ethnic density by parents and adolescents did. After controlling for adolescent discrimination at Time 1, this ethnic density variable and the immigration status by parent discrimination interaction variable were the strongest predictors of adolescent discrimination at Time 3. Contrary to the hypothesis, perceptions of greater ethnic density were related to more rather than less discrimination. Living among greater numbers of Asians may sensitize community members and heighten an awareness of racial/ethnic discrimination. A study of Chinese American college students showed that ethnic density was positively related to ethnic identity (Juang & Nguyen, 2010). And a stronger ethnic identity has been linked to a greater awareness of racial/ethnic discrimination (Sellers & Shelton, 2003). Thus, the link between ethnic density and perceptions of discrimination may be indirect, through a strengthening of ethnic identity and awareness of ethnic issues. Our results also point to the limitations of simply focusing on number of coethnics. Numbers do not reveal the level of connection, support, or involvement with other coethnics. Future research should go beyond ethnic density and examine community bonds by focusing on connections between adolescents, their families, and people in the surrounding community (e.g., Zhou & Kim, 2006).

Limitations and Future Research

There were several limitations to the current study that future research could address. One limitation is the use of primarily cross-sectional data. We at least included adolescent discrimination at Time 1 as a control variable. Importantly, this Time 1 variable accounted for the greatest amount of variance explained for adolescent discrimination at Time 3, and yet we identified further family, school, and neighborhood factors that contributed above and beyond adolescents’ prior perceptions of discrimination. Nonetheless, our primarily cross-sectional data does not allow us to test for causal relations and pathways.

Another limitation is that we did not have enough complete parent data across the three time points to examine dynamic parent-adolescent interactions, in other words, how changes in parent discrimination may relate to changes in adolescent discrimination. Future research should follow both the parent and adolescent to examine how they experience and perceive discrimination over time.

Another limitation is that although we found that parent, school, and neighborhood factors were associated with adolescent discrimination, we did not directly test for explanations for these associations. One important next step would be, for instance, to examine how parents’ experiences of discrimination relate to their racial/ethnic socialization goals, beliefs, and practices and how these, in turn, explain the link to adolescent discrimination. Apart from African American parents, we know very little of how parents of other ethnic groups socialize their children in regards to discrimination (Hughes et al., 2006). We do know, however, that Asian heritage parents may be especially reticent concerning discussions of discrimination. In one study, Japanese parents engaged in racial socialization less than African American and Latino parents (Phinney & Chavira, 1995). Another study found that Chinese American adolescents reported their parents engaged in less cultural socialization than Black and Puerto Rican adolescents (Rivas-Drake, Hughes, & Way, 2008). We do not know what consequences, if any, this may have on their children. It will be important to explore how Asian heritage parents deal with discrimination and, in turn, how these experiences inform the way parents socialize their
children in terms of awareness of and response to discrimination (Hughes & Chen, 1999; Hughes et al., 2006). Doing so would add to our understanding of how parents can help their adolescents cope with and make meaning of experiences with discrimination. As evidence steadily accumulates concerning the negative effects of racial/ethnic discrimination on the physical and psychological health of Asian Americans, we need to continue to broaden our knowledge of discrimination within different social contexts, search for mechanisms to explain how and why these contexts matter, and, importantly, identify potential buffers that can mitigate the negative effects of racial/ethnic discrimination.

References


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**Call for Papers**

The *Asian American Journal of Psychology* (AAJP) is the official publication of the Asian American Psychological Association and is dedicated to research, practice, advocacy, education, and policy within Asian American psychology.

The Journal publishes empirical, theoretical, methodological, and practice-oriented articles covering topics relevant to Asian American individuals and communities, including prevention, intervention, training, and social justice. Whereas particular consideration is given to empirical articles using quantitative, qualitative, and mixed methodology, the Journal will publish the full range of articles including but not limited to empirical studies, short research reports, methodological reviews, position papers, policy statements, case studies, and critical reviews. The Journal will also consider proposals for special issues that address specific themes within the field of Asian American psychology.

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