The Role of Heritage Language Development in the Adjustment of Adolescents from Immigrant Backgrounds

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Abstract

The influence of immigrant-background adolescents' heritage language proficiency and use of the language on parent-adolescent relationships and ethnic identity was investigated in a sample of 414 ninth-grade participants from Latin American and Asian backgrounds. Heritage language proficiency, but not language use, was found to be positively associated with the quality of the parent-adolescent relationship, especially for Asian American adolescents. Although heritage language proficiency and language use were both associated with strength of ethnic identity, when taken together, only heritage language proficiency emerges as a reliable predictor of ethnic identity. These findings indicate that it is the development of proficiency in the heritage language that influences adolescents' successful adjustment, rather than their own choice of languages.

The Role of Heritage Language Development in the Adjustment of Adolescents from Immigrant Backgrounds

The immigrant population in the U.S. is growing rapidly; recent Census estimates indicate that 33.5 million individuals in the U.S. are first generation, or foreign-born, immigrants (March 2003; Larsen, 2004), an increase of over 7 million in just 5 years (comparison with 1998 Census data). As a result, the population of individuals who come from homes in which a non-English, heritage language (HL) is spoken is also growing rapidly: the number of people aged 5 and older who reported speaking a language other than English at home grew by 47% in the 1990s alone (Shin & Bruno, 2003). It is further estimated that 20% of students in kindergarten through high school come from homes in which a non-English language is the primary language spoken (Van Hook & Fix, 2000). Children from immigrant families therefore often experience a unique challenge in learning English at school while speaking another language at home.

Researchers, policy makers, educators, and parents often express concern that the linguistic challenges related to immigrant-background children's bilingual status might hinder their successful adjustment. This has led many to support monolingual English practices, from parents who choose to speak only English at home to educators and policy makers who support an English immersion model in the classroom. However, while proficiency in English is clearly important in order to be successful in the U.S., it does not necessarily have to come at the loss of the HL. It has been shown that in high quality bilingual education programs that maintain support in both languages, children show significant advances in both English and the HL (e.g., Escamilla & Medina, 1993; Winsler, Díaz, Espinosa, & Rodríguez, 1999). Furthermore, there is a growing body of literature on the possible negative consequences associated with loss of the HL, from disruptions in parent-child relationships (e.g., Tseng & Fuligni, 2000) to isolation from

one's cultural community (e.g., Imbens-Bailey, 1996). It is therefore important to better understand the influence of HL development in the development of children from immigrant backgrounds. In this study, we examined the influence of HL proficiency and use on the adjustment of adolescents from immigrant backgrounds, in order to better understand how their linguistic experiences might influence their social and psychological adjustment. In particular, we focused on two key areas of adjustment: adolescents' relationships with their parents and their ethnic identity.

Heritage Language Maintenance and Adolescent Adjustment

Although there are increasing numbers of students who come from homes in which a non-English language is spoken, they often do not maintain proficiency in their HL as they grow older; these languages are usually lost by the second or third generation of immigrants (Veltman, 1983; Krashen, 1996). In fact, in one study of over 5000 second-generation adolescents in Florida and California, only 30% of the adolescents reported being fluent in their HL, and the vast majority (72%) reported that they preferred speaking English to their HL (Portes & Rumbaut, 2001; HL fluency rates come from a follow-up survey of over 4000 adolescents from the original sample). At the same time, we know that individuals who begin speaking a language in adulthood, as in the case of many first-generation immigrant parents who begin speaking or learning English upon arrival in the U.S., rarely acquire native-like abilities in the target language (e.g., Johnson & Newport, 1989; Long, 1990). What this means for immigrant families is that increasing numbers of first-generation immigrant parents cannot communicate effectively with their children due to language barriers. As their children start to speak predominantly in English at home, many parents are forced to speak English to their children, even though they may have limited proficiency in the language. They may therefore feel unable to express their

thoughts and feelings fully to their children (Fillmore, 1991), resulting in a less-than-ideal parent-child relationship.

In fact, interviews of immigrant-background adults reveal that disruptions in family relationships do occur as a result of children's shift to English monolingualism. Often, even ordinary communication with parents is disrupted by language barriers, leading to unnecessary arguments with parents (Cho & Krashen, 1998). Children's refusal to speak the HL can also be a constant source of tension between parents and children (Hinton, 1999), and in many cases, language barriers can hinder parents and children from communicating about their goals and accomplishments (Kouritzin, 1999). Results from larger-scale studies support these findings: HL proficiency among Latino adolescents has been found to be positively associated with parent-child communication about academic activities (Arriagada, 2005). In a study of families from East Asian, Filipino, and Latin American backgrounds, the best parent-adolescent relationships (specifically, the highest levels of mother-adolescent cohesion and parent-adolescent discussion) were found among families in which parents and adolescents mutually spoke the HL with each other, as compared with families in which there was a mismatch in languages used or in which parents and adolescents mutually spoke in English (Tseng & Fuligni, 2000). Among second-generation immigrant adolescents in Miami/Ft. Lauderdale, Florida and San Diego, California, adolescents who reported being able to speak their HL well (either fluent bilinguals or monolinguals in the HL) were found to experience less family conflict and more family solidarity than those who do not speak the HL well (either English monolinguals or limited in both languages; Portes & Hao, 2002). Additionally, in Chinese American families in which mother-adolescent cohesiveness is high, mothers' attitudes toward HL maintenance have been found to be positively associated with their immigrant-background adolescents' rates of HL

proficiency and use (Luo & Wiseman, 2000). These studies clearly demonstrate the impact that HL proficiency and use can have on the parent-adolescent relationship in immigrant-background families.

Disruptions associated with a lack of proficiency in the HL extend beyond the family as well: children and adults who have limited proficiency in their HL report feeling isolated from their cultural communities (e.g., Imbens-Bailey 1996; Cho & Krashen, 1998; Hinton, 1999), and this inability to participate in their cultural communities can have important consequences for the development of ethnic identity. Furthermore, language itself is a key influence on ethnic identity, especially for language minority individuals (e.g., Fishman, 1977; Smolicz, 1981; Hurtado & Gurin, 1995). Speaking the language of one's heritage culture not only allows individuals to participate in their cultural communities more fully, the HL can also be used (or not used) by the speaker to indicate identification (or lack thereof) with their cultural group. In fact, immigrant-background Armenian American children who are able to speak their HL express a stronger identification with their cultural community than their monolingual English-speaking peers (Imbens-Bailey, 1996). Vietnamese American adolescents with higher levels of literacy in their HL also tend to report higher levels of ethnic identity (Bankston & Zhou, 1995). This is further supported in a study of adolescents from Armenian, Vietnamese, and Mexican backgrounds in which proficiency in the HL (in this case, literacy and spoken proficiency) was found to reliably predict levels of ethnic identity (Phinney, Romero, Nava, & Huang, 2001). Immigrant-background adolescents' ability to communicate in their HL can therefore also have important consequences for their identification with their heritage cultures.

Distinguishing between Heritage Language Use and Proficiency

Prior research therefore indicates that maintenance of the HL has implications for the healthy adjustment of adolescents from immigrant backgrounds, at least in the areas of family relationships and ethnic identity. However, one problem with these studies is that they do not clearly distinguish between language proficiency and language use. Nearly all of the research to date on this topic has focused either on HL proficiency or language use patterns, and to some degree interchangeably, perhaps assuming that individuals who are proficient in the language must be using it and vice versa. (Note that although Luo and Wiseman (2000) did study both, the two measures were conceptualized as part of one overall "ethnic language maintenance" variable and only their indirect relationship to family relationships—through parent HL attitudes—were studied). It is important, however, to keep in mind that language proficiency and use are conceptually distinct variables: while language proficiency is an ability that is well-established by adolescence (if not earlier), language use patterns reflect a conscious choice between two languages. It is probable, for example, that bilingual individuals who are proficient in both languages vary quite widely in their frequency of use of each language. At the same time, it is probable that those individuals who are more proficient in their HL are more likely to use it. Therefore, by measuring only proficiency or only use, findings may confound these two variables, such that the associations that have been found between language use and patterns of adjustment may be partially reflective of individuals' proficiency in the HL, and vice versa.

It is therefore important to study both proficiency and use in order better understand the distinct influences of each. This would help us to better understand the impact of bilingual language experiences on the development and adjustment of immigrant-background children and adolescents. If maintenance of HL proficiency is associated with adolescent adjustment, it

would mean that having early experiences with the language to better develop their skills in that language, as well as having continued experiences and opportunities to maintain their skills in the language, are important for the adjustment of immigrant-background children later, in adolescence. Furthermore, it would mean that even if children or adolescents consciously make an effort to use their HL, if they have limited proficiency in that language, their opportunities to connect with their parents or their ethnic/cultural group may still be limited. If language use is associated with adolescent adjustment, it would mean that making an effort to use the language, whether with their parents or with other members of their cultural community, is important for adolescent adjustment, perhaps even in the case of adolescents who have not maintained high levels of proficiency in their HL.

The Present Study

It is therefore important to better understand not only how the maintenance of proficiency in a HL affects the adjustment of immigrant-background adolescents, but also how their choice of languages might influence this association. Therefore, in this study, we assessed both HL proficiency and patterns of language use in order to disentangle the distinct influences of each. For the most part, research to date has focused on the influence of HL proficiency on family relationships and ethnic identity among immigrant-background adolescents. Additionally, the one study that has systematically investigated the influence of language use patterns on adolescent adjustment, Tseng and Fuligni's (2000) study of parent-adolescent relationships, found only a relatively small effect of mutual HL use on the quality of parent-adolescent relationships (effect sizes = .14 to .24 SD). We therefore argue that the relationship between language use patterns and adolescent adjustment may reflect, in large part, their ability to communicate in the language rather than language choice per se. Hence, we predict that the HL

proficiency of immigrant-background adolescents will be associated with the quality of their relationships with their parents and with the strength of their identification with their ethnic group.

This study therefore measured both HL proficiency and language use patterns, as well as their impact on both the quality of parent-adolescent relationships and the strength of adolescents' ethnic identification. Furthermore, we included both Latino and Asian American adolescents in order to better understand how the impact of the bilingual language experiences might vary across different cultural groups. These two cultural groups have widely varying social and historical experiences in the U.S., and therefore should provide an important comparison in terms of the impact of their language minority status on the adjustment of adolescents from these groups. When it comes to HL maintenance, generally speaking, rates of HL proficiency and use among second-generation immigrants are found to be higher among Latinos than among Asian Americans (Lopez, 1996; Portes & Rumbaut, 2001). To date, there is a lack of systematic research to address these cultural differences, but it is likely due to a combination of factors, perhaps ranging from relative differences in cultural support for these languages to differences in proximity and access to countries of origin to variations in parents' English language abilities across cultural groups. Nonetheless, including both cultural groups will allow us to better understand how the impact of bilingual language development might be different for these cultural groups.

Method

Sample and Procedure

The research reported here was part of a larger study of ninth-grade students recruited from three public high schools in the Los Angeles area. The three schools varied in their ethnic

composition, socioeconomic status, and overall achievement levels. The first school was in the lower middle to middle range of the achievement distribution of California schools, and enrolled predominantly Latino and Asian American students from lower-middle to middle class educational, occupational, and financial backgrounds. The second school, which was an average achieving school, enrolled primarily Latino and European American students from lower-middle to middle class backgrounds. The third school was somewhat above average in achievement and enrolled mostly Asian American and European American students from middle to upper-middle class backgrounds. In all of the schools, there was no single dominant ethnic group, but rather the two most common ethnic groups each made up about 30 to 50% of the total student population.

In two schools, all ninth-grade students were invited to participate in the study, and in the third school, about half of the ninth-grade students were invited to participate (due to the third school's large size, it was not practical to recruit all students). Over the three schools, 65% of invited students agreed to take part in the study, resulting in a total sample size of 783 students. The analyses described here focus on the 414 participants with either Latin American or Asian backgrounds (mean age = 14.9 years; 49% male, 50% female, 1% did not report gender) who were either immigrants themselves (29%) or who had parents who are immigrants (71%). Among the 187 Latino participants, 26% were immigrants themselves and the vast majority (83%) were of Mexican descent. Of the 227 Asian American participants, 32% were immigrants and the majority (67%) were of Chinese descent (the next largest Asian ethnic group was Vietnamese, at 13%).

Participants who had returned parent consent and their own assent forms completed the questionnaire in two parts, one portion in class, and the remainder at home. Among other scales,

the in-class portion included demographic information as well as the family relationship and ethnic identity measures. The take-home portion included additional demographic questions and the language use and proficiency measures.

Measures

Language use and proficiency. Participants were asked to identify any language(s) other than English that were spoken in their home, and to self-rate their proficiency in that language. Using a 5-point scale ranging from 1 (*not very well*) to 5 (*very well*), they separately rated their ability to speak, understand, read, and write in the language. This scale had good internal consistency (α = .89), and we averaged across the four ratings for one general measure of HL proficiency. This is a commonly used approach to measure language proficiency in large scale questionnaire studies that prohibit the direct testing of language proficiency (e.g., Phinney et al., 2001; Portes & Rumbaut, 2001)

As for language use patterns, adolescents reported on the language their parents usually spoke to them and the language the adolescent him/herself usually spoke to their parents. They also reported on the language that they usually spoke with their siblings and, separately, with their friends. We coded these data for: 1) the language spoken to the parent (English or the HL), 2) whether parents and adolescents mutually used the same language or had a mismatch in languages used (i.e., parents spoke the HL but adolescents responded in English), and 3) the contexts in which adolescents used the heritage language (English in all cases, HL with the parents only, HL with parents and in other contexts).

Family relationships. Students completed the family cohesion subscale of the Family Adaptation and Cohesion Evaluation Scales II inventory (FACES II; Olson, Sprenkle, & Russell, 1979). Participants completed the 10-item subscale separately for each parent, responding to

statements on a 5-point scale ranging from 1 (*almost never*) to 5 (*almost always*). The subscale includes items such as "My mother and I feel very close to each other" and "My mother and I like to spend our free time with each other". The internal consistency of both scales was good (αs = .86 for both mother and father subscales).

Participants also completed a 3-item parent-adolescent discussion scale which asked about the frequency with which they discussed various topics with their parents. Responses were on a 5-point scale ranging from 1 (*almost never*) to 5 (*almost always*). The scale asks "How often do you talk about the following things with your parents", with specific topics including "your future job plans", "your future educational plans", and "the classes you are taking in school". The scale had good internal consistency (α = .82).

Ethnic identity. The Multigroup Ethnic Identity Measure (MEIM Revised, 12-item version; Roberts, Phinney, Masse, Chen, Roberts, & Romero, 1999) was used to measure strength of identification with the ethnic group. The MEIM is made up of a 7-item affirmation, belonging, and commitment subscale (e.g., "I feel a strong attachment towards my own ethnic group") and a 5-item ethnic identity search subscale (e.g., "I think a lot about how my life will be affected by my ethnic group membership"). Participants rated their agreement with each statement on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The internal consistency of the overall scale was good (α = .86), as were the subscales (ABC: α = .88; search: α = .71).

Results

Language variables by ethnic group and generational status. To investigate variations in HL proficiency by ethnic group and generational status, a 2 x 2 between subjects ANOVA was conducted with ethnicity and generation as independent variables and HL proficiency as the

dependent variables. As expected, first-generation immigrant adolescents report higher HL proficiency than second-generation adolescents, F (1, 375) = 27.59, $p < .01$ (see Table 1 for means). Furthermore, Latino adolescents report higher proficiency than Asian American adolescents, F (1, 375) = 71.79, $p < .01$. Although the interaction was not statistically significant, it is also interesting to note that both first- and second-generation Asian American adolescents reported lower HL proficiency than the second-generation Latino adolescents.

With regard to parent-adolescent language use, although the majority of both first- and second-generation adolescents reported mutually speaking in the HL with their parents, first-generation adolescents were more likely to do so than second-generation adolescents, χ^2 (2, N = 374) = 27.87, $p < .01$ (see Table 2). There were no reliable ethnic group differences in parent-adolescent language use patterns, χ^2 (2, N = 374) = 5.76, *n.s.* The majority of both Latino and Asian American adolescents reported mutually speaking in the HL with their parents. As for adolescents' language use by context, first-generation adolescents were more likely to speak the HL with friends and/or siblings in addition to parents, while second-generation adolescents were more likely to speak only English in all situations, χ^2 (2, N = 340) = 52.43, $p < .01$ (see Table 3). Again, there were no reliable ethnic group differences, χ^2 (2, N = 340) = 2.23, *n.s.*

We explored the relationship between HL proficiency and language use patterns in a 2 (generation) x 2 (ethnic group) x 3 (language use: English only, HL with parents only, HL with others) ANOVA with HL proficiency as the dependent variable. This revealed a significant main effect of ethnic group, F (1, 324) = 61.78, $p < .01$, a significant main effect of language use, F (2, 324) = 32.33, $p < .01$, and a significant three-way interaction among the independent variables, F (2, 324) = 4.06, $p < .05$. None of the other effects (i.e., the main effect of generation and all of the two-way interactions) were significant, Fs = .10 to 2.41, *n.s*. The main effect of

ethnic group reflects the prior finding that Latino adolescents have higher HL proficiency, on average, than do Asian American adolescents. The main effect of language use patterns reveals that adolescents who only speak English have significantly lower levels of HL proficiency (M = 2.76, SE = .12) than those who speak the HL with only their parents (M = 3.44, SE = .09), who in turn have lower levels of HL proficiency than those who speak the HL with friends and/or siblings in addition to parents (M = 4.12, SE = .12; all ps < .01 by Tukey's HSD).

To explore the three-way interaction, 2 (generation) x 3 (language use) ANOVAs were conducted separately for each ethnic group. For both groups, as in the larger analysis, the main effect of language use was significant (Latino: F (2, 157) = 9.28; Asian American: F (2, 167) = 25.08, ps < .01). Of particular interest is that the generation by language use interaction was significant for the Asian American adolescents, F (2, 167) = 4.85, p < .01, but not for the Latino adolescents, F (2, 157) = .95, *n.s.* (see Figure 1). It appears that for Asian American adolescents, HL proficiency is more strongly associated with language use patterns in first-generation immigrant adolescents (English only: M = 1.88; HL with parents only: M = 2.99; HL with others: M = 4.35) than among second-generation adolescents (English only: M = 2.35; HL with parents only: M = 2.77; HL with others: M = 3.31). It therefore appears that while language use patterns are related to HL proficiency for all immigrant-background adolescents, this association is strongest for first-generation Asian American adolescents.

Language and family relationships. To investigate the association between HL proficiency and the quality of parent-adolescent relationships, correlations were calculated among these variables. These reveal that HL proficiency is positively associated with both parent-adolescent cohesion (mother-adolescent cohesion: r = .19; father-adolescent cohesion: r = .16) and parent-adolescent discussion (r = .18; all ps < .01). When correlations are conducted

separately for each of the ethnic groups, they reveal that associations between HL proficiency and the parent-adolescent relationship variables are weak and not significant for Latino adolescents (*r*s = .06 to .10, *n.s.*), while positive associations between the variables are significant and stronger for Asian American adolescents (mother-adolescent cohesion: $r = .16$; father-adolescent cohesion: $r = .19$; parent-adolescent discussion: $r = .14$; all *p*s < .05). To investigate whether these associations varied by generation of immigration, multiple regression analyses were conducted with both HL proficiency and generational status as a predictor variables and the parent-adolescent relationship variables as dependent variables. These revealed similar patterns of association between HL proficiency and parent-adolescent relationships as found in the correlational analyses, and that generation is not reliably associated with parent-adolescent relationships.

In contrast to language proficiency, parent-adolescent language use patterns do not appear to be related to the quality of the parent-adolescent relationship. A series of planned *t*-tests do not reveal any significant differences in family relationships between adolescents who mutually spoke the same language with their parents vs. those who had a mismatch in languages spoken, *t*s = .71 to 1.39, *n.s.* Similarly, there were no differences in family relationships between adolescents who spoke the HL with their parents vs. those who spoke English to their parents, *t*s = .27 to 1.00, *n.s.*

Language and ethnic identity. Correlations were also calculated between HL proficiency and the ethnic identity subscales. These reveal positive associations between the subscales and HL proficiency (affirmation, belonging, and commitment: $r = .30$; ethnic identity search: $r = .26$; *p*s < .001), and this is true for both Latino (*r*s = .27, .23, respectively, *p*s < .01) and Asian American adolescents (*r*s = .23, .33, respectively; *p*s < .01). Further multiple regression analyses

with generational status as an additional predictor variable reveal a similar pattern of associations, and that generation is not associated with ethnic identity.

Levels of ethnic identity also vary by language use patterns. A series of planned *t*-tests reveal that adolescents who speak the HL with their parents show stronger ethnic identity than those who speak English to their parents (affirmation, belonging, and commitment: t (369) = 3.04; ethnic identity search: t (370) = 2.25; ps < .05; see Table 4). Adolescents who mutually speak the same language with their parents show stronger ethnic identity than those who experience a mismatch in languages used, but only as measured by the affirmation, belonging, and commitment subscale, t (369) = 2.21, p < .05. ANOVAs with ethnic group included as an additional independent variable reveal that these patterns do not vary by ethnic group.

As for language use by context, one-way ANOVAs with adolescents' contextual language use as the independent variable (English in all contexts, HL with parents only, HL with parents and others) and the ethnic identity subscales as dependent variables reveal that on the affirmation, belonging, and commitment subscale, adolescents who speak English in all contexts have significantly lower ethnic identity than the two other groups, but that adolescents who speak the HL with only their parents do not differ in their ethnic identity from those who speak the HL with their parents and others, main effect: F (2, 340) = 4.23, p < .01 (ps < .05 by Tukey's HSD post-hoc test for difference between English speaking group and other two groups; see Table 4 for means). On the ethnic identity search subscale, the English speaking group's ethnic identity is only significantly lower than the group that spoke the HL with their parents and others, F (2, 341) = 3.74, p < .05 (p < .05 by Tukey's HSD post-hoc test). Again, ANOVAs were conducted with ethnic group as an additional independent variable to investigate whether these effects varied by ethnic group, and they did not reveal any such differences.

In contrast to family relationships, where only HL proficiency was important, both HL proficiency and language use patterns seem to be related to ethnic identity. We further explored their joint influences on ethnic identity in a series of multiple regressions with HL proficiency and language use as predictors and the ethnic identity subscales as dependent variables. In all, six models were calculated. These included three for each of the ethnic identity subscales (affirmation, belonging, and commitment; ethnic identity search). Additionally, each of the three language use variables (language use with parents, language match with parents, contextual language use) were included as predictors, along with HL proficiency, in separate models (see Table 5). In each case, the language use variables were dummy coded in order to be included in the following manner: a) language use with parents: English = 0, HL = 1; b) language match with parents: mismatch = 0, mutual = 1; c) contextual language use: HL with parents only = 0, HL with parents and others = 1. All of the overall models were significant, accounting for 19% to 29% of the variance (ps < .05). Additionally, in all cases, HL proficiency was a significant predictor of ethnic identity (affirmation, belonging, and commitment: βs = .23 to .27; ethnic identity search: βs = .16 to .24; all ps < .05), but language use was not. This seems to indicate that the variations found in ethnic identity by language use patterns might be explained by the relationship between language use and proficiency, with HL proficiency being the driving influence on ethnic identity.

Discussion

The primary aim of this study was to investigate the joint influences of HL proficiency and language use patterns on the social and psychological adjustment of adolescents from immigrant backgrounds. In particular, we focused on their influence on both family relationships and ethnic identity. As predicted, HL proficiency seemed to be more important

than language use for family relationships and ethnic identity. In the case of family relationships, HL proficiency was found to be associated with the quality of adolescents' relationships with their parents, but these relationships did not vary by language use patterns. While this supports much of the previous research (e.g., Luo & Wiseman, 2000; Portes & Hao, 2002; Arriagada, 2005), it also stands in contrast to Tseng and Fuligni's study (2000) in which they found that language use patterns in the home were associated with the quality of the parent-adolescent relationship. As mentioned, Tseng and Fuligni only found a small effect in the association between language use patterns and parent-adolescent relationships, and they did not measure HL proficiency. Therefore, their finding may have reflected, at least in part, adolescents' ability to speak in the HL, rather than language choice per se.

As for ethnic identity, though HL proficiency and language use patterns seem separately associated with the strength of adolescents' identification with their ethnic group, when taken together, it appears that HL proficiency is the stronger predictor of ethnic identification. Again, it may be the case that the relationship found between language use patterns and ethnic identity is at least partially reflective of adolescents' ability to use the HL. This also supports earlier research (e.g., Bankston & Zhou, 1995; Phinney et al., 2001), and further demonstrates that it is HL proficiency, not language choice or use, that is related to adolescents' development of an ethnic identity.

We were also interested in investigating ethnic group differences in these relationships. As in previous research (e.g., Lopez, 1996; Portes & Rumbaut, 2001), we found that Latino adolescents retained their HL at higher rates than their Asian American peers. Furthermore, there were strong generational differences between first- and second-generation Asian American adolescents, but not Latino adolescents, in the relationship between language use and HL

proficiency. That is, first-generation Asian American adolescents showed much wider variation in their HL proficiency across the different language use patterns than did second-generation Asian American adolescents. The reason for this is unclear. It could be that HL proficiency is a stronger predictor of language use among first-generation than second-generation Asian American adolescents. It could also be that factors other than HL proficiency are involved in second-generation Asian American adolescents' choice of language. For instance, there is quite a bit of variation in HL proficiency among second-generation Asian American adolescents who report speaking only English, indicating that it is not proficiency alone that is involved in their choice of language. Perhaps they choose not to speak their HL for other reasons. Or perhaps second-generation Asian American adolescents have fewer opportunities to speak their heritage language overall. Whatever the reasons, the finding that this generational difference is unique to Asian American students is intriguing, and ethnic group differences should be explored further in future research.

We further found ethnic group differences in the relationship between HL development and family relationships, but not ethnic identity. In particular, we found that while there appears to be a relationship between HL proficiency and the quality of the parent-adolescent relationship, this finding may be driven by the stronger associations between these variables for Asian American adolescents. In comparison, the associations for Latino adolescents are weak and not statistically significant. This finding is intriguing, especially in light of Arriagada's (2005) finding of an association between HL proficiency and parent-child communication among Latino adolescents. It is worth noting that while our parent-adolescent variables were more global in nature, Arriagada's was specific to communication about academic activities (nonetheless, when we limit the analysis to just the academic item on our communication scale, findings are similar).

It is therefore important to further explore the nature of the relationship between HL proficiency and parent-adolescent communication—it could possibly turn out to be specific to certain topics of conversation.

Clearly, HL development is influential in the adjustment of adolescents from immigrant backgrounds. In particular, the ability to use the HL, rather than their individual choice to use it, seems to be the key factor in immigrant-background adolescents' healthy adjustment, at least in the case of family relationships and ethnic identity. However, a limitation of this study is that we cannot make causal inferences about the nature of these associations. That is, we cannot conclusively state whether it is development of proficiency in the HL that allows for healthy adjustment in other areas, or whether strong family relationships and ethnic identity encourage and support adolescents to maintain proficiency in their HL. In fact, it is probably a mutual process, with development in one domain affecting but also being affected by development in the other domain. It is therefore important to conduct longitudinal research in order to tease apart these association to better understand these relationships.

What we do know is that language proficiency is established very early on, and that it is very difficult to acquire proficiency in a target language later, in adolescence or adulthood (e.g., Long, 1990). We also know that immigrant-background children often begin to lose their HLs at very early ages (e.g., Fillmore, 1991). It is therefore likely that the process begins with the development (or lack of development) of the HL, with children who do not develop or maintain their proficiency in the language being at risk for poor relationships with their parents and low levels of ethnic identity. In turn, it may be that the poor relationships and low ethnic identity lead adolescents to not want to speak or maintain their HL. While this is somewhat speculative at this point, the association between HL proficiency and adolescent adjustment has clearly been

established, and we now need to better understand just how language development in immigrant-background children and adolescents affects other areas of their development. Furthermore, if these adolescents with low levels of HL proficiency are suffering from poor family relationships and low levels of ethnic identity, we also need to better understand how they are doing in other areas of development, as well as their general psychological well-being.

Another limitation of this study is that we relied on adolescents' self-reports of their language abilities. The accuracy of adolescents' reports of their language proficiency may vary widely from individual to individual, and so it is important to conduct independent assessments of language ability in order to corroborate self-reports. We also did not evaluate parents' language proficiency. Parents' language proficiency could potentially explain some of the relationship between adolescents' HL proficiency and the quality of their relationships with their parents, and therefore it is important to explore this in future studies as well. However, note that in Portes and Hao's (2002) study of second-generation immigrant adolescents, they found that the inclusion of parents' knowledge of English as a predictor variable did not significantly affect the association between adolescents' level of bilingualism and the quality of their relationships with their parents. Although their bilingualism variable, unlike our HL proficiency variable, takes into account both English and HL proficiency, this finding seems to indicate that it is the adolescents' own language abilities which influences their relationships with their parents, at least more so than their parents' language abilities.

For many reasons, we are seeing immigrant-background children losing their HLs at increasingly rapid rates (Fillmore, 2000). At the same time, there is a growing body of research indicating that HL loss can and does negatively impact immigrant-background children and adolescents' adjustment. In this study, we have demonstrated that it is HL proficiency and not

language use that is associated with the quality of parent-adolescent relationships and the strength of ethnic identity. It is therefore important that we not only better understand the impact of linguistic experiences on immigrant-background children and adolescents' adjustment, but also that we better understand why HLs are lost so rapidly and what we can do to support HL development in order to help immigrant-background children and adolescents to maintain proficiency in their HLs. By doing so, we may be able to help students from immigrant backgrounds to better cope with the stresses of adolescence.

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Table 1

Mean HL Proficiency by Ethnic Group and Generation of Immigration

	Latino		Asian		Overall	
	M	*SE*	*M*	*SE*	*M*	*SE*
1st generation	4.15	.14	3.34	.15	3.66	.11
2nd generation	3.71	.09	2.56	.07	3.11	.07
Overall	3.83	.08	2.82	.07		

Table 2

Parent-Adolescent Language Use Patterns by Ethnic Group and Generation of Immigration

	Parent-adolescent language use		
	HL only	Parent HL, child English	English only
Generation			
1st	.82 (90)	.10 (11)	.08 (9)
2nd	.53 (140)	.20 (52)	.27 (72)
Ethnic group			
Latino	.59 (103)	.15 (25)	.27 (47)
Asian	.64 (127)	.19 (38)	.17 (34)

Note. Values represent the proportion of participants in each group who reported the particular pattern of language use (raw numbers in parentheses).

Table 3

Adolescent Contextual Language Use by Ethnic Group and Generation of Immigration

	Adolescent language use		
	English only	HL with parents only	HL with others
Generation			
1st	.18 (17)	.37 (35)	.45 (42)
2nd	.46 (113)	.43 (106)	.11 (27)
Ethnic group			
Latino	.40 (66)	.38 (63)	.23 (38)
Asian	.37 (64)	.45 (78)	.18 (31)

Note. Values represent the proportion of participants in each group who reported the particular pattern of language use (raw numbers in parentheses).

Table 4

Strength of Ethnic Identity by Language Use Patterns

	Affirmation, belonging, & commitment		Ethnic identity search	
	M	*SE*	*M*	*SE*
	Language spoken to parents			
HL	4.06	.05	3.14	.06
English	3.81	.07	2.91	.07
	Language use pattern with parents			
Mutual	4.01	.04	3.07	.05
Mismatch	3.76	.11	3.00	.11
	Language use by context			
English only	3.77	.07	2.92	.07
HL with parents only	4.05	.07	3.04	.08
HL with parents & others	4.16	.09	3.28	.11

Table 5

Summary of Multiple Regression Analyses Predicting Strength of Ethnic Identity from HL Proficiency and Language Use Patterns

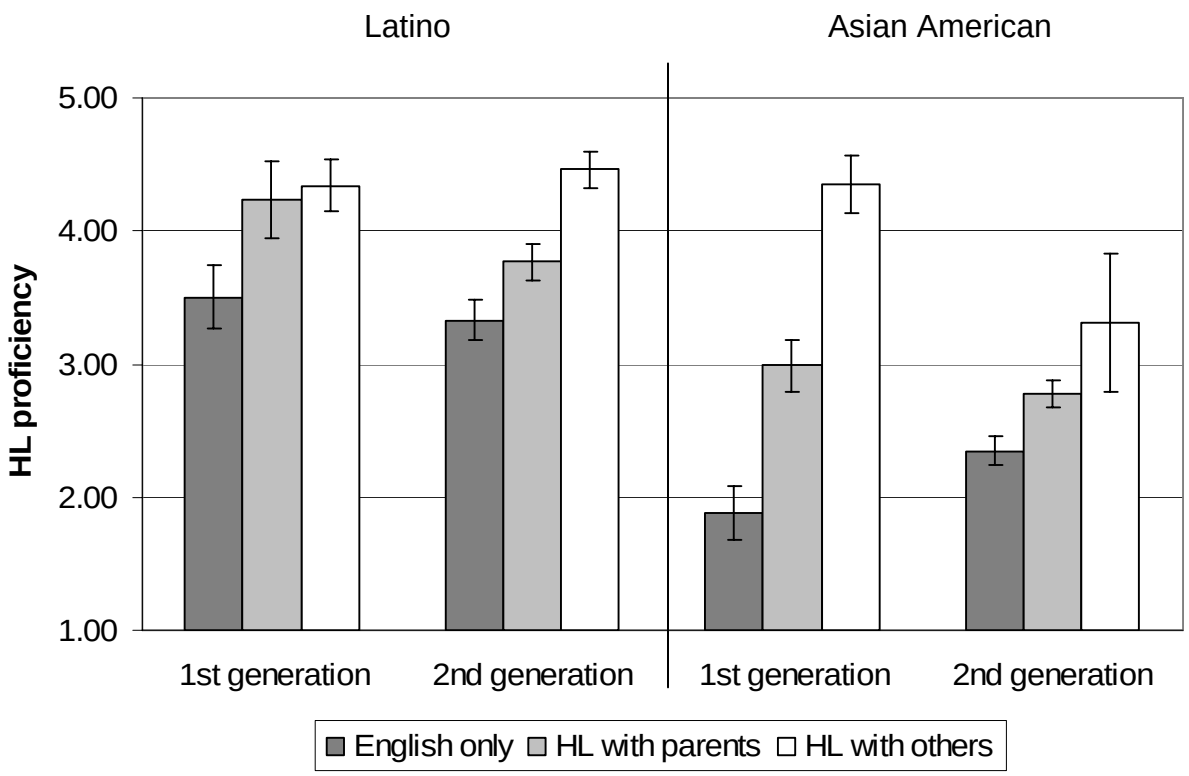
	Affirmation, Belonging, and Commitment			Ethnic Identity Search		
Predictor	*B*	*SE B*	*β*	*B*	*SE B*	*β*
HL Proficiency	0.19	0.04	0.27**	0.19	0.04	0.24**
Language with Parents:						
English vs. HL	0.18	0.11	0.09	0.02	0.12	0.01
HL Proficiency	0.18	0.04	0.25**	0.18	0.04	0.23**
Language Match with Parents:						
Mismatch vs. Mutual	0.15	0.09	0.09	0.07	0.10	0.04
HL Proficiency	0.16	0.05	0.23**	0.13	0.06	0.16*
HL by Context:						
Parents Only vs. With Others	-0.05	0.13	-0.03	0.11	0.15	0.06

Note. R^2 = .19 to .29, all *p*s < .05. Language use dummy coded, with first category listed coded 0 and second coded 1 in each case.

**: $p < .01$, *: $p < .05$

Figure Caption

Figure 1. Mean HL Proficiency by Ethnicity, Generation, and Language Use


Latino
Asian American
HL proficiency
5.00
4.00
3.00
2.00
1.00
1st generation
2nd generation
1st generation
2nd generation
English only
HL with parents
HL with others