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# Parent and Child Fluency in a Common Language: Implications for the Parent–Child Relationship and Later Academic Success in Mexican American Families

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The current study tested elements of the theoretical model of Portes and Rumbaut (1996), which proposes that parent—child differences in English fluency in immigrant families affect various family processes that, in turn, relate to changes in academic success. The current study of 674 Mexican- origin families provided support for the model in that parent—child fluency in a common language was associated with several dimensions of the parent—child relationship, including communication, role reversal, and conflict. In turn, these family processes predicted child academic performance, school problems, and academic aspirations and expectations. The current findings extend the Portes and Rumbaut (1996) model, however, inasmuch as joint fluency in either English or Spanish was associated with better parent—child relationships. The findings have implications for educational and human service issues involving Mexican Americans and other immigrant groups.

Keywords: child-rearing practices, Mexican Americans, immigrants, acculturation, parenting

Despite the rapid growth in the Latino population in the United States (U.S. Census Bureau, 2008), little developmental research has included children in Mexican American families. The present study addresses this issue by evaluating a theory proposed by Portes and Rumbaut (1996) to help explain differences in academic development for children of immigrants. Specifically, we investigate the degree to which differences in language fluency between parents and children predict the quality of family relationships and school performance during the developmentally challenging transition from late childhood to early adolescence.

Mexican American immigrant families face many significant challenges, including language-related difficulties (Hahm, Lahiff, Barreto, Shin, & Chen, 2008) involving the shift from Spanish to English (Hurtado & Vega, 2004; Veltman, 1988). Parents and children in Mexican American families often gain fluency in English at different rates. Researchers have argued that although parents may want to learn English, their employment and social surroundings often do not facilitate development of English flu-

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ency (Chiswick & Miller, 2008; Kulis, Marsiglia, Sicotte, & Nieri, 2007). In contrast, children are enrolled in school, which both requires and facilitates fluency in English. In addition, younger children are at an age when language acquisition is relatively easy compared with the adult years (Dekeyser, Alfi-Shabtay, & Ravid, 2010; Ellis & Sagarra, 2010).

Intergenerational differences in English fluency form the basis of a model proposed by Portes and Rumbaut (1996) to identify different trajectories of cultural adaptation that children of immigrants follow. According to Portes and Rumbaut (1996), social and academic trajectories of second-generation children of immigrants depend on both parent and child adaptation to the host culture (Portes & Rumbaut, 1996, p. 242). Their model seeks to explain, in part, why Mexican American adolescents often lag behind their White and Asian American peers in reading and math (García & Jensen, 2007). Portes and Rumbaut (1996) hypothesized that the achievement lag might be partially explained by patterns of interaction between immigrant parents and their children.

Specifically, their model proposes that parents and children who are similar in their English fluency will experience more healthy patterns of interaction, characterized by increased communication due to fluency in a shared language, preservation of parental authority, and relatively little conflict. Families with these patterns of interaction were described as demonstrating either "consonant" or "selective" acculturation, two possible patterns in which both parent and child experience similar levels of adaptation to the host culture in terms of language use. In contrast, parents and children who do not share fluency in English experience "dissonant acculturation." According to the theory, possible consequences of dis-

sonant acculturation include decreased parent-child communication, role reversal (e.g., loss of parental authority), and increased parent-child conflict. These consequences, in turn, place children at heightened risk for social and academic problems. In this article, we extend the Portes and Rumbaut (1996) model by proposing that differences in Spanish fluency should have similar effects, though we also would note that these intergenerational language differences exist among all immigrant families regardless of language/ country of origin or language/country of destination.

#### Consequences of Differences in Language Fluency

#### **Family Processes**

In their research with children of immigrants, Portes and Rumbaut (2001) demonstrated the prevalence of language differences in this population. They found that almost no first-generation parents in their study met their criteria for fluency in English (i.e., self-reported ability to speak, understand, read, and write), and almost no second-generation youth could be considered fluent in Spanish.

Based on these results, Portes and Rumbaut (2001) proposed that the marked differences in English fluency would lead to relatively low levels of parent-child communication. Secondgeneration youth in their study retained some knowledge of their parents' language, enough for limited exchanges at home, and most parents learned at least some words of English, leading to "constrained but not ruptured intergenerational communication" (p. 144). This hypothesis has received additional support from other qualitative studies (Pease-Alvarez, 2002), and Martinez (2006) noted that "clinical experience working with Latino families suggests that differential family acculturation often interferes with effective communication and problem solving among all family members" (p. 314). Based on these observations and theoretical reasoning, in the current study, we predicted that when both parents and children are fluent in a common language, either English or Spanish, the quality of parent-child communication will be higher.

Portes and Rumbaut (1996) also hypothesized that intergenerational language differences would lead to the development of "role reversal," or power differences atypical for parent-child dyads. This role reversal occurs when children's familiarity with English and the host culture (i.e., United States) has moved so far ahead of their parents' familiarity that key family decisions become dependent on the children's knowledge. Portes and Rumbaut (1996) suggested that parents who cannot speak fluent English often rely on their children to assist in interfacing with the English-speaking institutions that surround them. Because second-generation youths speak the language and know the culture better than their parents, they are often able to prematurely free themselves from parental control (Portes & Rumbaut, 2001). Although Portes and Rumbaut (2001) had no direct quantitative measure of role reversal, the qualitative data collected for their study provided preliminary evidence consistent with the hypothesis.

Literature on children as cultural brokers for their parents suggests that, regardless of the benefits associated with cultural brokering (Orellana, 2003; Santiago, 2003), shifts in power may result when children act as mediators between their parents and Englishspeaking others (Chao, 2006; Love & Buriel, 2007; Trickett &

Jones, 2007; Umaña-Taylor, 2003). The result of this process is that the child accrues greater power in the parent—child relationship than is desirable and becomes less dependent on the parent for guidance and instruction. That is, the child can become more dominant, whereas the parent may become more passive. In the current study, we expect that language differences between parents and children will be associated with higher levels of child dominance and parent passivity. As an extension of the Portes and Rumbaut (1996) model, we propose that differences in Spanish fluency also will lead to this power imbalance inasmuch as parents will be less influential in terms of guidance and instruction when they are not fluent in a common language with their child.

The final hypothesized consequence of intergenerational language differences considered here involves increased levels of parent-child conflict. Knowledge of the language is the most elemental kind of common ground on which communicators rely, especially during conflict (Krauss & Morsella, 2000). When language differences are added to all the other problems with communication during conflicts, the chances for misunderstanding and escalation are extremely high. Portes and Rumbaut (2001) reported that children who shared a common language with Spanishdominant parents (i.e., fluent bilinguals and families where children prefer Spanish) reported lower amounts of parent-child conflict. Joint fluency between parents and children may, in part, promote greater agreement on a common perspective that reduces the likelihood of parent-child conflict. Moreover, the absence of joint fluency may make it harder to resolve conflicts when they occur, thus leading to escalation in conflicts over time (see Krauss & Morsella, 2000). Thus, we expected that language differences in either English or Spanish would be associated with higher levels of parent-child conflict.

#### **School Performance**

Portes and Rumbaut (1996) proposed that these elements of the parent–child relationship (i.e., communication, role reversal, conflict) link language similarities and differences to academic outcomes like achievement, school dropout, and educational aspirations and expectations. Consistent with their expectations, they found that parent–child conflict was negatively related to academic aspirations and educational achievement. They did not have quantitative measures of communication or role reversal, but they found anecdotal support for a link from communication and role reversal to academic outcomes through qualitative interviews with study participants. Consistent with their view, other research has found an association between parent–child relationship quality and academic success in high school (e.g., López Turley, Desmond, & Bruch, 2010).

## The Current Study

Based on the preceding review, we expected to find differences in language fluency between parents and children in our community study of Mexican-origin children during the developmentally challenging transition from late childhood to early adolescence (fifth to seventh grades). In the following analysis, we first test this expectation. We also expected that differences in language use between parent and child would be associated with the family processes hypothesized by Portes and Rumbaut (1996). Poor com-

munication, role reversal, and conflict, in turn, are hypothesized to predict poorer academic achievement, more school problems, and lower academic aspirations and expectations. That is, language differences are expected to be indirectly linked to school outcomes through their influence on these family processes (see Figure 1).

The current study extends prior work in several ways. Portes and Rumbaut (2001) used only child fluency in English as a predictor of their family process variables and academic outcomes. However, their theory emphasizes the benefits of linguistic and cultural shifts occurring at the same pace across generations (Portes & Rumbaut, 2001, p. 54). That is, their theoretical model anticipates moderation, or a unique effect of the co-occurrence of both parent and child fluency in English. Accordingly, Figure 1 includes the interaction between parent and child fluency as a predictor of the family process variables in the model (West, Aiken, & Krull, 1996). For the reasons noted earlier, we propose that parent—child differences in Spanish fluency will have similar effects as differences in English fluency.

This study also extends prior work by testing the theory for both mothers and fathers. In their test of the model, Portes and Rumbaut (2001) only included one caregiver per family and thus could not evaluate whether the model operated similarly for mothers and fathers. We followed the suggestion by Parke (1996), who advocated explicit tests to determine if theoretical predictions hold equally well for mothers and fathers. Finally, because socioeconomic status is associated both with language use and with many of the family process elements included in this study (Bradley & Corwyn, 2002; Duncan & Magnuson, 2003; Mayer, 1997), we controlled for both parent education and family income in tests of study hypotheses.

#### Method

#### **Participants**

Data for the present report come from a community study of Mexican-origin children and their parents. The 674 families (549 two-parent and 125 single-mother families) were recruited via telephone. If staff were unable to establish contact over the phone, a staff member went to the family's house and made face-to-face

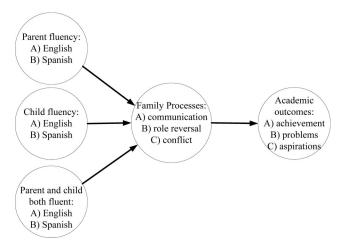


Figure 1. Theoretical model adapted from Portes and Rumbaut (1996).

contact to invite participation in the study. The focal child in each family was selected at random from the cohort of all fifth-grade students in two cities in northern California who were enrolled in public schools during the academic years for 2006 to 2007 and 2007 to 2008. The first criterion for inclusion in the study was that the child's biological mother lived with the child and identified herself as Mexican or Mexican American. Second, we included both single-parent and two-parent families, but, if the father was in the household, he had to be the biological father and identify as Mexican or Mexican American. Third, for father-absent households, the mother had to report that the focal child's biological father was Mexican or Mexican American. Sixty-nine percent of eligible families agreed to participate in the study, similar to recruitment success in other community studies that recruit multiple family members (Capaldi & Patterson, 1987; Conger et al., 2002).

Families in the study lived in urban or in suburban areas, and all were of Mexican origin. Eighty-eight percent of the fathers were born in Mexico, as were 84% of the mothers and 28% of the children. Eighty-one percent of the fathers completed the interviews in Spanish, as did 78% of the mothers, but only 15% of the children completed them. Annual family income ranged from \$0 to \$5,000 to over \$200,000, with an average income between \$30,000 and \$35,000. Fathers' education ranged from 0 to 20 years (M = 9.09 years). For mothers, the range was from 1 to 20 years of education (M = 9.39 years). The fathers ranged in age from 27 to 65 years (Mdn = 39 years); mothers' ages ranged from 2 to 9 (M = 4.89 members). At study initiation, children averaged 10.9 years of age and were approximately evenly split across gender (51.9% female).

#### **Procedures**

All measures were assessed when the focal child was in the fifth grade and academic outcomes were assessed a second time during the seventh grade. During these assessment periods, each family was visited twice in their homes for data collection, usually during a 1-week period. On average, each home visit took 2 to 3 hr. Each participating family member—mother, father (when present), and focal child—completed a set of computer-based interviews focusing on family processes, individual family member characteristics, and socioeconomic circumstances. Interviews were conducted in either Spanish or English, depending on the preference of the participant. All interviewers were proficient in both Spanish and English, and most were of Mexican descent. All measures not already available in Spanish were translated to Spanish by bilingual staff members and then back translated to English by another group of bilingual staff members to confirm that the original meaning remained clear. Parents were each paid \$100 dollars for their participation and children were each paid \$50 for their participation.

During the second home visit, children were video recorded while engaging in a 20-min parent-child discussion task. The child completed this task separately with each parent. Interviewers explained the task, gave prompt cards to parent and child, and then left the room while the parent and child discussed issues such as how the family spends time together, enjoyable experiences they have had, and household rules. These interactions were scored by

raters using an adapted version of the Iowa Family Interaction Rating Scales (Melby et al., 1991). This revised coding system represented the first attempt to apply the Iowa scales to a Mexicanorigin sample. Changes included combining overlapping scales and adding a small number of codes (e.g., dominance and passivity) that were believed to be especially helpful in understanding family dynamics among this population. Raters were staff members who received several weeks of training on rating family interactions, were blind to study hypotheses, and specialized in coding one of the interaction tasks. Before observing tapes, raters had to independently rate precoded interaction tasks and achieve at least 90% agreement with the standard. For purposes of assessing interobserver reliability, 20% of the tasks were randomly selected to be observed and rated by a second observer. Different observers rated the child's behavior and the parent's behavior.

#### Measures

Language fluency. Language fluency was assessed during fifth grade by asking each participant (i.e., child, mother, and father), "How well do you understand spoken English?" and "How well do you speak English?" Parallel questions were asked with regard to Spanish. These four questions were answered on a scale from 1 (not at all) to 4 = (very well) and were combined for each participant into ratings of fluency in each language (for English fluency,  $\alpha = .64$  for child, .90 for mother, and .86 for father reports; for Spanish fluency,  $\alpha = .82$  for child, .90 for mother, and .94 for father reports). Self-reports of fluency are uniformly relied upon in this field, and these questions were similar to those asked by Portes and Rumbaut (2001). Average fluency in English was M = 3.46 (SD = .42) for children, M = 2.56 (SD = .93) for mothers, and M = 2.70 (SD = .77) for fathers. In contrast, average fluency in Spanish was M = 2.95 (SD = .42) for children, M =3.46 (SD = .42) for mothers, and M = 3.46 (SD = .42) for fathers. In order to facilitate interpretation of the path coefficients, fluency scores were standardized for primary analyses and product terms were created to test for moderation.

**Parent–child communication.** Parent–child communication was measured during fifth grade using two scales from the observed parent–child interaction. Observed communication included use of explanations and clarifications, reasoning, soliciting the other's views, or in some way demonstrating consideration of the other's point of view. Coders independently rated, on a 9-point scale, the quality of parent communication with the child (M = 5.75, SD = 1.19, for mothers, and M = 5.36, SD = 1.33, for fathers) and the quality of child communication with the parent (M = 5.01, SD = 1.21, for mother, and M = 5.09, SD = 1.15, for father). Intraclass correlations between observer ratings averaged .56 and ranged from .47 to .71.

**Role reversal.** Parent–child role reversal was measured during fifth grade using two scales from the observed parent–child interaction. Coders independently rated, on a 9-point scale, the degree of child dominance with the parent (e.g., child attempts to dominate, influence, or control parent and is successful; M = 2.67, SD = 1.25, for mothers, and M = 2.87, SD = 1.32, for fathers) and the degree of parent passivity with their child (e.g., parent seems to go along with everything the child says and agree with all the child's opinions; M = 1.49, SD = .83, for mothers, and M = 1.74,

SD=1.13, for fathers). Observer agreement averaged .62 and ranged from .43 to .70.

**Conflict.** Parent–child conflict was measured during fifth grade using two scales from the observed parent–child interaction. Coders independently rated, on a 9-point scale, the amount of hostile behavior displayed by parent toward child (e.g., angry, critical, disapproving, rejecting behavior; M = 1.58, SD = 1.00, for mothers, and M = 1.33, SD = .79, for fathers) and the amount of hostile behavior displayed by child toward parent (M = 1.45, SD = 1.02 for mother, and M = 1.24, SD = .67 for father). Observer agreement averaged .62 and ranged from .54 to .69.

**Academic outcomes.** First, math and English scores from the California Standards Test (CST; scores ranged from 1 [far below basic performance] to 5 [advanced performance]), as reported by the school, were used as indicators of a latent variable called academic achievement (std  $\lambda = .86$  for math and .83 for English in fifth grade; .54 for math and .83 for English in seventh grade). Second, the number of unexcused absences and whether or not the child was suspended (0 = no, 1 = yes) were used as indicators of a second latent variable called school problems (std  $\lambda = .60$  for absences and .52 for suspensions in fifth grade; .79 for absences and .88 for suspensions in seventh grade). To provide a more stable estimate of unexcused absences, data were Winsorized such that any child who had more than 10 unexcused absences received a score of 11, which reduced skewness from 2.56 to 1.09. Third, children reported on their academic aspirations and expectations by answering the questions "How far would you like to go in your education" and "How far do you expect to go in your education." These two questions were used as indicators of a third latent variable called academic aspirations (std  $\lambda = .43$  for aspirations and .82 for expectations in fifth grade; .72 for aspirations and .92 for expectations in seventh grade). Fifth- and seventh-grade reports were correlated for academic achievement (r = .91), school problems (r = .41), and academic aspirations (r = .35).

**Socioeconomic status.** To assess parent educational attainment in single-parent families, we used mother's self-report of number of years of schooling completed. In two-parent families, we used both mother self-report of years of schooling as well as mother report of number of years of schooling completed by the father. To assess income in single-mother households, we used mother's self-report of income. An average of mother and father self-reports of income were used in two-parent families. Income was reported in increments of \$5,000.

#### Results

As a first step in the analyses, we evaluated whether the differences in fluency between parents and children identified in prior work (e.g., Portes & Rumbaut, 2001) would be replicated in our sample. Consistent with prior findings, children were more fluent in English than mothers, t(670) = 26.58, p < .001, and fathers, t(489) = 22.67, p < .001. Furthermore, children were less fluent in Spanish than mothers, t(669) = 31.38, p < .001, and fathers, t(489) = 24.09, p < .001. These findings regarding language differences between parents and children indicate that these families are appropriate for evaluating the primary study hypotheses.

We evaluated our theoretical predictions (see Figure 1) by comparing nested structural equation models consistent with our hypotheses, using full information maximum likelihood (FIML) estimation (Muthén & Muthén, 2006). FIML is considered an acceptable way to deal with missing data, which was modest for this sample (less than 20% for all variables). Change in model fit was assessed using the chi-square difference test. When evaluating the fit of structural models to the data, we used the standard chi-square index of statistical fit, the root mean square error of approximation (RMSEA; Browne & Cudeck, 1993), the Tucker-Lewis index (TLI; Tucker & Lewis, 1973), and the standardized root mean square residual (SRMR). RMSEA values under .06 indicate a close fit to the data (Hu & Bentler, 1999), and TLI values should be greater than .90, and SRMR preferably less than .08, to consider the fit of a model to data to be acceptable (Hu & Bentler, 1999). These models were run separately for each of our three family process indices (i.e., communication, role reversal, and conflict; see Table 1). Preliminary analyses showed no significant differences in findings by child gender or generational status with regard to the hypothesized model. Therefore, we report analyses based on the entire sample. Model 1 in Table 1 was the baseline model, which allowed no correlations among the variables in the theoretical model. As expected, the fit of this model was poor for communication,  $\chi^2(386) = 4183.2$ , RMSEA = .17; role reversal  $\chi^2(386) = 4122.2$ , RMSEA = .15; and conflict,  $\chi^2(386) = 3955.9$ , RMSEA = .13.

To evaluate the overall adequacy of our hypothesized structural model, Model 1a regressed each family process variable onto parent and child fluency in both English and Spanish (all standardized), and two product terms (i.e., Parent Fluency in English X Child Fluency in English, and Parent Fluency in Spanish × Child Fluency in Spanish) consistent with the model in Figure 1. The four different ratings of each family process variable were allowed to correlate. Academic outcomes during seventh grade, in turn, were regressed onto fluency variables, family process variables, and academic outcomes during fifth grade. Family process indices and academic outcomes were also regressed onto parent education and family income. As expected, allowing these structural paths resulted in significant improvement in model fit, and Model 1a was an acceptable representation of data for each of the three mediators—communication, role reversal, and conflict.

The next step in model fitting tested the direct paths from language fluency to child academic outcomes, after controlling for all the other variables in our theoretical model. As shown in Figure 1, our theoretical model allowed no direct associations from parent or child fluency to academic outcomes. To test for the hypothesized mediation, Model 1b removed the direct paths from the fluency variables to the three academic outcomes. Removal of these paths did not significantly change model fit, suggesting that fluency variables do not predict change in academic outcomes controlling for the other variables in the model. The direct paths from fluency to academic outcomes were therefore not retained in the following models.

The remaining models shown in Table 1 (Models 1c through 1g) reflect tests of difference in magnitude for particular paths and work toward an increasingly parsimonious model. The first step in this process concerns possible differences between mothers and fathers. Model 1c provides a direct test for these differences by equating paths across parents. Model 1c did not significantly worsen fit for communication,  $\Delta \chi^2(12) = 8.08$ , p = .78, role reversal,  $\Delta \chi^2(12) = 14.88$ , p = .25, or conflict,  $\Delta \chi^2(12) = 7.94$ , p = .79, suggesting that the hypothesized pathways in the model operate similarly for both mothers and fathers. The next consideration in model testing involved possible differences by language: Spanish or English. Model 1d provides a direct test for these differences by equating parallel paths across the two languages. Model 1d did not significantly worsen fit for communication, suggesting that fluency in English and fluency in Spanish operate similarly in terms of observed communication. However, Model 1d significantly worsened fit for role reversal and conflict. Thus, we did not carry forward the constraints for role reversal and conflict, but retained the constraints for communication.

Model 1e tested whether the pattern of associations from language fluency to family process variables differed between parent behavior and child behavior. Model 1e did not significantly worsen fit for role reversal, but did significantly worsen fit for communication and conflict. Thus, we did not carry forward the constraints for communication and conflict, but did retain the constraints for role reversal.

Table 1
Fit of Nested Structural Models Testing the Theoretical Model Across Indices of Academic Success

	Communication					Role reversal					Conflict				
Model	$\chi^2$	df	$\Delta df$	$\Delta\chi^2$	p	$\chi^2$	df	$\Delta df$	$\Delta\chi^2$	p	$\chi^2$	df	$\Delta df$	$\Delta\chi^2$	p
1	4183.2	386	_	_	<.001	4122.2	386	_	_	<.001	3955.9	386	_	_	<.001
1a	269.8	172	214	3913.4	<.001	245.3	172	214	3876.9	<.001	259.8	172	214	3696.1	<.001
1b	300.5	202	30	30.7	.43	277.4	202	30	32.1	.36	293.0	202	30	33.2	.31
1c	308.6	214	12	8.1	.78	292.3	214	12	14.9	.25	300.9	214	12	7.9	.79
1d	309.6	220	6	1.0	.98	305.4	220	6	13.1	.04	315.2	220	6	14.3	.03
1e	319.2	223	3	9.6	.02	296.9	220	6	4.6	.59	317.7	220	6	16.8	.01
1f	316.0	229	9	6.4	.69	301.3	229	9	4.3	.89	305.8	223	9	4.9	.84
1g	318.1	231	2	2.1	.36	302.5	233	4	1.2	.87	310.7	234	11	4.8	.94

Note. Models carry forward constraints from prior model only if the worsening in fit was nonsignificant. Model 1 = all variables included in model, with all correlations set to zero; Model 1a = Model 1, allowing paths specified by hypothesized model and correlations between exogenous variables (i.e., education, income, and fluency); Model 1b = Model 1a, removing paths from fluency to outcomes; Model 1c = Model 1a, equating structural paths across parents; Model 1d = Model 1c, equating paths across English and Spanish; Model 1e = Model 1d, equating paths across parents and child; Model 1f = Model 1e, equating paths to academic variables across relationship indices; Model 1g = Model 1f, setting to zero nonsignificant paths. For Model 1a, the probability of the overall model is given, whereas in Models 1b through 1g, the probability corresponds to the change in chi square.

The next question we addressed was whether the pattern of associations of the family process variables with academic outcomes varied across the four measures of that process (e.g., mother behavior, father behavior, and child behavior toward each parent). Model 1f constrained to equality the paths from the four measures of family process to each academic outcome. This constraint did not significantly worsen fit for any of the models, so these constraints were retained in our final models.

In the interest of parsimony, Model 1g set to zero all nonsignificant structural paths, with the exception of paths predicting family processes and seventh-grade outcomes from family income and parent education, and from lower order fluency variables in the presence of a significant moderation effect. Model 1g did not significantly worsen model fit for any of the three family process indices and was used as the final model.

Results from Model 1g for communication are presented in Figure 2. Observed parent communication with child was higher in families in which the parent reported higher fluency ( $\beta = .10$ , SE = .04). Consistent with the constraints applied, an identical pattern of results was found for both English and Spanish fluency.

We found similar main effects for child fluency predicting communication to parents. In addition, observed child communication with parent was higher in families in which both parent and child simultaneously reported higher fluency in a common language ( $\beta = .05$ , SE = .02). Examination of the standardized simple slope coefficients revealed that the association between child fluency and communication increased in magnitude as parent fluency in the same language increased ( $\beta = .08$ , SE = .01, SE = .

Turning to academic outcomes, parent-child communication predicted significant rank-order increases in academic achievement and aspirations as well as rank-order decreases in school problems. Moreover, the same magnitude of effect was found for all four measures of parent-child communication. Indirect paths from fluency to academic outcomes through communication were estimated using bootstrapped confidence intervals and were generally significant (18 out of 24), ranging in absolute value from b = .002 to b = .028.

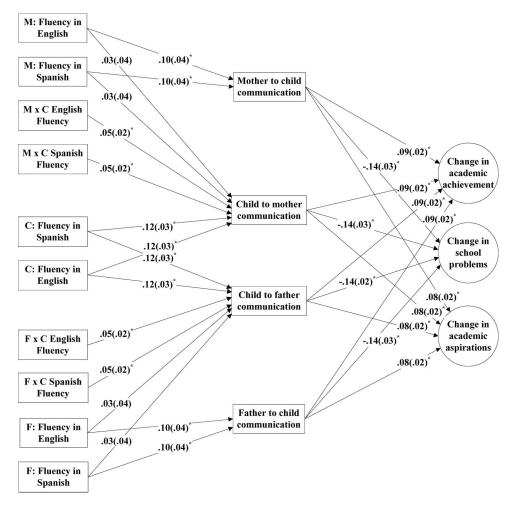


Figure 2. Results for Model 1g of effects of language fluency on communication. Reported statistics are standardized coefficients (SEs in parentheses). Model fit:  $\chi^2$  (231) = 318.10, p < .001, TLI = .925, RMSEA = .025 (90% CI [.018, .031], SRMR = .047. \* p < .05.

Results from Model 1g for role reversal are presented in Figure 3. In terms of main effects, parent passivity to child was lower among families in which parents reported higher fluency in English ( $\beta = -.08$ , SE = .04), higher fluency in Spanish ( $\beta = -.11$ , SE = .03), and in which children reported higher fluency in Spanish ( $\beta = -.10$ , SE = .03). In addition, joint fluency in Spanish was negatively related to role reversal both for parents  $(\beta = -.10, SE = .04)$  and children  $(\beta = -.07, SE = .03)$ . Examination of the standardized simple slope coefficients revealed that the negative association between parent fluency in Spanish and passivity increased in magnitude as child fluency in Spanish increased ( $\beta = -.01$ , SE = .03, 1 SD below the mean on child fluency;  $\beta = -.11$ , SE = .03, at the mean on child fluency;  $\beta =$ -.21, SE = .06, 1 SD above the mean on child fluency). Child dominance to parent was lower among families in which both parent and child simultaneously reported higher fluency in Spanish  $(\beta = -.08, SE = .03)$ . The negative association between child fluency in Spanish and dominance increased in magnitude as

parent fluency in Spanish increased ( $\beta = -.03$ , SE = .03, 1 SD below the mean on parent fluency;  $\beta = -.10$ , SE = .03, at the mean on parent fluency;  $\beta = -.17$ , SE = .06, 1 SD above the mean on parent fluency). Parent-child role reversal predicted significant rank-order increases in school problems but did not predict academic achievement or aspirations. Indirect effects through role reversal were not significant.

Results from Model 1g for hostility or conflict are presented in Figure 4. Parent hostility to child was lower among families in which parents reported higher fluency in Spanish ( $\beta = -.20$ , SE = .06), and in which both parent and child reported higher fluency in Spanish ( $\beta = -.07$ , SE = .03). The negative association between parent fluency in Spanish and hostility increased in magnitude as child fluency in Spanish increased ( $\beta = -.13$ , SE = .03, 1 SD below the mean on child fluency;  $\beta = SD.20$ , SE = .06, at the mean on child fluency;

 $\beta = SD.27$ , SE = .09, 1 SD above the mean on child fluency).

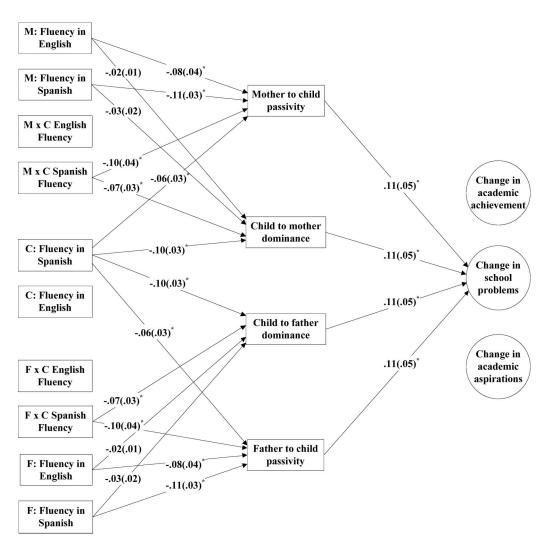


Figure 3. Results for Model 1g of effects of language fluency on role reversal. Reported statistics are standardized coefficients (SEs in parentheses). Model fit:  $\chi^2$  (233) = 302.49, p < .001, TLI = .940, RMSEA = .022 (90% CI [.014, .029], SRMR = .049. \* p < .05.

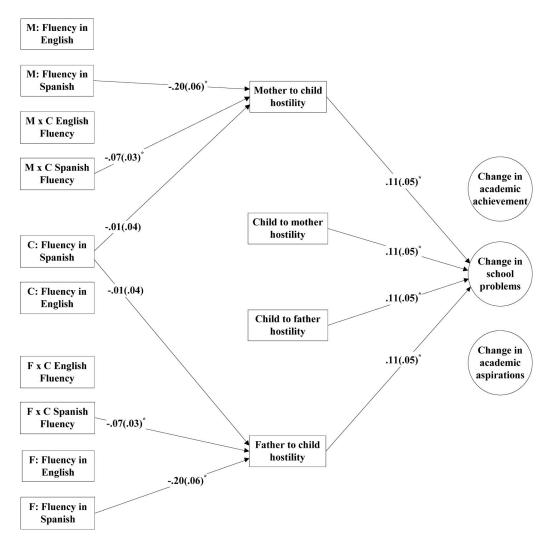


Figure 4. Results for Model 1g of effects of language fluency on conflict. Reported statistics are standardized coefficients (SEs in parentheses). Model fit:  $\chi^2$  (234) = 310.67, p < .001, TLI = .927, RMSEA = .023 (90% CI [.016, .030], SRMR = .049. \* p < .05.

Parent-child conflict predicted significant rank-order increases in school problems. Indirect effects through conflict were not significant.

## Discussion

The current study found support for several aspects of an extended version of the Portes and Rumbaut (1996) theory of dyadic cultural adaptation. Consistent with findings reported by Portes and Rumbaut (1996), most parents in our community sample were not fluent bilinguals due to low levels of English fluency. Similarly, most children in this sample were not fluent bilinguals due to low levels of Spanish fluency. In observed parent—child interactions between these participants, we observed only one family in which the child continued speaking English throughout the task even though the parent was speaking only in Spanish. Tellingly, that mother—child dyad was rated lower than average on communication and higher than average on hostility. The theory of dyadic cultural adaptation of Portes and Rumbaut (1996, 2001) brings this

language dynamic to the fore and hypothesizes specific family process mechanisms to explain how linguistic differences between parents and children may ultimately affect child experiences at school. We consider our findings in relation to the various elements of the model.

# Fluency and Family Processes

Portes and Rumbaut (1996) considered the importance of language fluency in general by either the parent or child and also considered the issue of joint fluency by parent and child in the same language. We first consider the issue of language fluency by either parent or child. We replicated the finding by Portes and Rumbaut (2001) that child fluency predicted the parent—child relationship indices of communication, role reversal, and conflict. We extended our test of that hypothesis by showing that parent fluency also predicts these same family process variables. We also extended their theory by proposing that joint fluency in Spanish

would be related to parent-child communication, role reversal, and conflict. Although the theory of dyadic cultural adaptation highlights the benefits of parents and children sharing fluency in English in terms of these family processes, a natural extension is that there may also be benefits of parents and children sharing fluency in Spanish with regard to these same family processes. Furthermore, because English and Spanish are both options for parent-child interactions, failure to include fluency in one language could lead to spurious effects for the other language. The current study finds both English fluency and Spanish fluency to be related to family processes.

For example, Portes and Rumbaut (1996) hypothesized that parent fluency in English would be particularly related to increased parent—child communication, but in our data, parent fluency in both English and Spanish was related to higher levels of parent-to-child communication. A similar pattern holds for child-to-parent communication. That is, child communication with parents is higher when children report higher fluency in either English or Spanish.

Parent fluency in English was negatively related to parent passivity, consistent with the hypothesis of Portes and Rumbaut (1996). However, parent fluency in Spanish showed a similar association, suggesting that role reversal is not as uniquely linked to English fluency as it is to fluency in general. When parents can express themselves fluently in either language, they are rated as less passive. Interestingly, child dominant behavior toward the parent was negatively related to the child's fluency in Spanish but not child fluency in English. This finding suggests that the idea that fluency in English is related to more dominant behavior among second-generation children is incorrect. Instead, dominant behavior by the children in this sample appears to be negatively related to their fluency in Spanish. It may be that communication using the Spanish linguistic channel somehow facilitates an environment that prevents the emergence of child dominance. Alternatively, child fluency in Spanish may be an indicator of some other unmeasured variable—such as more traditional cultural values—that is negatively associated with child dominance.

The third family process we examined was parent-child conflict, operationalized as observed hostility. In the current study, higher parent fluency in Spanish predicted less parent hostility. This suggests that the emphasis on English fluency or Anglo orientation in prior work on parent-child acculturation differences may be misplaced. Clearly, with regard to our measure of observed hostility, English fluency plays no role at all for parents or children.

An additional extension of prior work in this area was the finding that co-occurrence of parent and child fluency in a common language was a consistent predictor of all three family processes. Apparently, fluency by one member of a dyad is not sufficient; both parent and child need to report fluency in a common language to maximize its association with communication, role reversal, and conflict. The current findings support prior theoretical work (Hwang, 2006; Portes & Rumbaut, 1996) suggesting that fluency in a common language affects the quality of the parent—child relationship. Although Portes and Rumbaut (1996) emphasized the role of joint fluency in English, this association from parent and child cofluency to child-to-parent communication was also found for Spanish. Interestingly, this finding appears only for child communication with parents, suggesting that

children at this age may be more sensitive to or reliant on the fluency of their parents in order to communicate successfully with them.

Role reversal was operationalized in the current study as parent passivity toward child and child dominance toward parents. Joint fluency in Spanish emerges as a significant predictor for both parent-to-child passivity and child-to-parent dominant behavior. That is, joint fluency predicted less parent passivity and less child dominance. This finding is consistent with the emphasis given by Portes and Rumbaut (1996) to joint fluency across generations; but, interestingly, the association appears with regard to Spanish, not English. As stated previously, Portes and Rumbaut (1996) focused on parent-child differences in English. The consistent associations we found from parent-child joint fluency in Spanish to the four indices of role reversal reinforces the importance of considering both languages when predicting family processes among Mexican American families, as well as the importance of considering the co-occurrence of parent and child fluency in a common language.

Joint fluency in Spanish was uniquely related to less parent hostility toward the child. Parents who seek to maintain a strong communicative tie with their child and perceive their efforts to be stymied by a language barrier may experience stress, which may lead to hostility. Alternatively, fluency in Spanish may be an indicator of some other unmeasured variable that tends to reduce parent hostility. Clearly, fluency in Spanish is related to lower levels of role reversal and parent-to-child conflict, and future research should explore further the nature of these associations.

### **Family Processes and School Outcomes**

Of the three family process variables hypothesized by Portes and Rumbaut (1996) and tested in the current study (i.e., communication, role reversal and conflict), only communication successfully predicted rank-order increases in academic achievement and aspirations. That is, whereas communication predicted change in all three school outcomes, conflict and role reversal only predicted one (i.e., school problems). These results provide an interesting contrast with much of the acculturation gap literature, which has focused on parent-child conflict as a key consequence of intergenerational differences in language use (Martinez, 2006; Szapocznik, Rio, Perez-Vidal, Kurtines, & Santisteban, 1986). However, our results are consistent with other work that suggests that negative effects of intergenerational differences in acculturation are caused primarily by communication problems, not conflict (Hwang, 2006). In fact, Portes and Rumbaut (2001) suggested that one possible reason fluent bilingualism is associated with many positive outcomes may be that fluent bilingualism makes possible better intergenerational communication because children can talk to their parents regardless of the latter's English ability. Thus, even when parents' English language learning lags behind, communication breakdown and other negative consequences can be prevented by joint fluency in Spanish (Portes & Rumbaut, 2001, p.134). The current findings suggest that observed communication between parents and children is more consistently related to changes in school outcomes during late childhood. Future research will be required to determine if the relative importance

of parent child communication for academic outcomes is consistent across other periods of development.

#### **Mediation or Indirect Effects**

Communication was the only family process variable that showed consistent support for the mediational hypothesis of the Portes and Rumbaut (2001) model across the three child outcomes. That is, the associations between language fluency and change in academic outcomes can be explained by differences in observed communication between parents and children. In addition to the support this result gives to other empirical work that focuses on the importance of parent-child communication among immigrant families (Hwang, 2006), this finding is also consistent with prior work noting that positive parenting often relates to positive child outcomes, whereas negative parenting often relates to child maladjustment (Neppl, Conger, Scaramella, & Ontai, 2009). Thus, we would expect positive child behaviors (i.e., achievement and aspirations) to be more consistently related to positive elements of the parent-child relationship (i.e., communication) than negative elements (e.g., conflict).

#### **Parent Gender**

Another important issue for the current study was the degree to which the findings would apply equally well to mothers and fathers. As expected, the model predictions operated similarly for both fathers and mothers. As noted earlier, Portes and Rumbaut (2001) could not test for differences between mothers and fathers, and findings from the current study demonstrate these hypothesized relations operate similarly across parents. As Parke (1996) observed, the established differences between mothers and fathers with regard to play style and household division of labor should not cause researchers to lose sight of the many ways in which mothers and fathers have similar effects on children. Additional studies that test for differences between mothers and fathers are required to assess whether our findings of similar mother–father effects generalize to other domains of child functioning or other ethnic groups.

#### **Limitations and Study Implications**

This study has several limitations that should be noted. Although ethnic homogeneity is a strength of this study, giving greater power to examine intraethnic differences, replication across other immigrant groups will increase our confidence in the generalizability of our findings. Another limitation of the current study is that, although we evaluated the causal framework proposed by Portes and Rumbaut (1996), ours is a nonexperimental design that cannot address questions of causality as directly as with an experimental design. A third limitation concerns reliability of measurement. The magnitude of our results may have been attenuated due to the modest reliability of some measures. Finally, language is a carrier of culture, and we cannot fully disentangle the effects of language and culture. Cultural factors may influence the way participants read and interpret questions researchers pose, and could even create response biases with regard to Likert scales and observation-based assessments. Future work in this area should

continue to control for cultural markers and consider the possible role of biculturalism beyond bilingualism.

Despite these limitations, the current findings provide intriguing results regarding possible language influences on the parent-child relationship and academic outcomes. If our interpretations are correct, maintaining a common language between parents and their children is of paramount importance. Family therapists could consider that families in which all members are moderately fluent in the same language may nonetheless struggle with communication. Children especially appear to communicate more when both they and their parent are fluent instead of subfluent in a common language. In terms of policy applications, we believe the current findings support the promotion of fluent bilingualism for both generations (e.g., Spanish immersion programs for children and easy access to English as a Second Language classes for their parents). Thus, instead of a one-sided emphasis on fluency only in English, fluent bilingualism for both parents and children may be a surer avenue to positive family relationships and optimal child development. Although we have tested these hypotheses among a sample of Mexican American (i.e., Spanish-speaking) families, it is likely that the same processes unfold in immigrant families regardless of whether their native language is Spanish, Cantonese, or Vietnamese.

Taken as a whole, these findings suggest that researchers and practitioners who seek to foster parent—child communication among immigrant families would do well to encourage fluent bilingualism in both parents and children, rather than advocate for fluency in a particular language, or conflate limited bilingualism with full bilingualism. Parent—child communication was the only family process variable that provided a significant indirect pathway between fluency variables and academic outcomes. Should this finding be replicated in other samples, it suggests that efforts to improve school-related outcomes among children in bilingual families may profit by improving parent—child communication.

#### References

Bradley, R. H., & Corwyn, R. F. (2002). Socioeconomic status and child development. *Annual Review of Psychology*, 53, 371–399. doi:10.1146/ annurev.psych.53.100901.135233

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen, & J. S. Long (Eds.), *Testing structural equation models* (pp. 136–162). Beverly Hills, CA: Sage.

Capaldi, D., & Patterson, G. R. (1987). An approach to the problem of recruitment and retention rates for longitudinal research. *Behavioral Assessment*, 9, 169–177.

Chao, R. K. (2006). The prevalence and consequences of adolescents' language brokering for their immigrant parents. In M. H. Bornstein & L. R. Cote (Eds.), Acculturation and parent-child relationships: Measurement and development (pp. 271–296). Mahwah, NJ: Erlbaum.

Chiswick, B. R., & Miller, P. W. (2008). Immigrant enclaves, ethnic goods, and the adjustment process. In E. R. Barkan, H. Diner, & A. M. Kraut (Eds.) *From arrival to incorporation: Migrants to the U.S. in a global era* (pp.80–93). New York, NY: New York University Press.

Conger, R. D., Wallace, L. E., Sun, Y., Simons, R. L., McLoyd, V. C., & Brody, G. H. (2002). Economic pressure in African American families: A replication and extension of the family stress model. *Developmental Psychology*, 38, 179–193. doi:10.1037/0012-1649.38.2.179

Dekeyser, R., Alfi-Shabtay, I., & Ravid, D. (2010). Cross-linguistic evidence for the nature of age effects in second language acquisition.

- Applied Psycholinguistics, 31, 413–438. doi:10.1017/S0142716410000056
- Duncan, G. J., & Magnuson, K. A. (2003). Off with Hollingshead: Socioeconomic resources, parenting, and child development. In M. H. Bornstein & R. H. Bradley (Eds.), Socioeconomic status, parenting, and child development (pp. 83–106). Mahwah, NJ: Lawrence Erlbaum.
- Ellis, N. C., & Sagarra, N. (2010). The bounds of adult language acquisition: Blocking and learned attention. Studies in Second Language Acquisition, 32, 553–580. doi:10.1017/S0272263110000264
- García, E., & Jensen, B. (2007). Language development and early education of young Hispanic children in the United States. National Task Force on Early Childhood Education for Hispanics. Retrieved from http://www.ecehispanic.org/work/lang\_dev.pdf
- Hahm, H. C., Lahiff, M., Barreto, R. M., Shin, S., & Chen, W. (2008). Health care disparities and language use at home among Latino, Asian American, and American Indian adolescents: Findings from the California Health Interview Survey. *Journal of Community Psychology*, 36, 20–34. doi:10.1002/jcop.20214
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Structural Equation Modeling, 6, 1–55.
- Hurtado, A., & Vega, L. A. (2004). Shift happens: Spanish and English transmission between parents and their children. *Journal of Social Issues*, 60, 137–155. doi:10.1111/j.0022-4537.2004.00103.x
- Hwang, W. C. (2006). Acculturative family distancing: Theory, research, and clinical practice. *Psychotherapy (Chicago, Ill.)*, 43, 397–409. doi: 10.1037/0033-3204.43.4.397
- Krauss, R. M., & Morsella, E. (2000). Communication and conflict. In M. Deutsch & P. T. Coleman (Eds.), *The handbook of conflict resolution: Theory and practice* (pp. 131–143). San Francisco, CA: Jossey-Bass.
- Kulis, S., Marsiglia, F. F., Sicotte, D., & Nieri, T. (2007). Neighborhood effects on youth substance use in a southwestern city. Sociological Perspectives, 50, 273–301. doi:10.1525/sop.2007.50.2.273
- López Turley, R. N., Desmond, M., & Bruch, S. (2010). Unanticipated educational consequences of a positive parent-child relationship. *Jour*nal of Marriage and Family, 72, 1377–1390.
- Love, J. A., & Buriel, R. (2007). Language brokering, autonomy, parentchild bonding, biculturalism, and depression: A study of Mexican American adolescents from immigrant families. *Hispanic Journal of Behav*ioral Sciences, 29, 472–491. doi:10.1177/0739986307307229
- Martinez, C. R., Jr. (2006). Effects of differential family acculturation on Latino adolescent substance use. Family Relations: An Interdisciplinary Journal of Applied Family Studies, 55, 306–317. doi:10.1111/j.1741-3729.2006.00404.x
- Mayer, S. (1997). What money can't buy: Family income and children's life chances. Cambridge, MA: Harvard University Press.
- Melby, J., Conger, R. D., Brook, R., Rueter, M., Lucy, L., Repinski, D., . . .Scaramella, L. (1991). The Iowa Family Interaction Rating Scales.Ames, IA: Iowa State University Press.
- Muthén, L. K., & Muthén, B. O. (2006). *Mplus user's guide* (4th ed.). Los Angeles, CA: Author.

- Neppl, T. K., Conger, R. D., Scaramella, L. V., & Ontai, L. L. (2009). Intergenerational continuity in parenting behavior: Mediating pathways and child effects. *Developmental Psychology*, 45, 1241–1256. doi: 10.1037/a0014850
- Orellana, M. F. (2003). Responsibilities of children in Latino immigrant homes. New Directions for Youth Development, 100, 25–39. doi: 10.1002/vd.61
- Parke, R. D. (1996). Fatherhood. Cambridge, MA: Harvard University Press.
- Pease-Alvarez, L. (2002). Moving beyond linear trajectories of language shift and bilingual language socialization. *Hispanic Journal of Behav*ioral Sciences, 24, 114–137. doi:10.1177/0739986302024002002
- Portes, A., & Rumbaut, R. G. (1996). *Immigrant America: A portrait*. Los Angeles, CA: University of California Press.
- Portes, A., & Rumbaut, R. G. (2001). Legacies: The Story of the Immigrant Second Generation. Berkeley, CA: University of California Press.
- Santiago, S. (2003). Language brokering: A personal experience. In C. Marilyn and L. Ganong (Eds.), *Points & counterpoints: Controversial relationship and family issues in the 21st century* (pp. 160–161). Los Angeles, CA: Roxbury Publishing Company.
- Szapocznik, J., Rio, A., Perez-Vidal, A., Kurtines, W. M., & Santisteban,
  D. A. (1986). Family effectiveness training (FET) for Hispanic families.
  In H. P. Lefley & P. B. Pedersen (Eds.), Cross-cultural training far mental health professionals (pp. 245–261). Springfield, IL: Charles C. Thomas.
- Trickett, E. J., & Jones, C. J. (2007). Adolescent culture brokering and family functioning: A study of families from Vietnam. *Cultural Diver*sity and Ethnic Minority Psychology, 13, 143–150. doi:10.1037/1099-9809.13.2.143
- Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. *Psychometrika*, 38, 1–10.
- Umaña-Taylor, A. J. (2003). Language brokering as a stressor for immigrant children and their families. Los Angeles, CA: Roxbury Publishing Company.
- U.S. Census Bureau. (2008). U.S. Census immigration statistics: Population division, immigration statistics staff. Maintained by Information & Research Services Internet Staff, U.S. Census, Washington DC. Retrieve from www.census.gov/population/www/socdemo/ foreign/index.html
- Veltman, C. (1988). The future of the Spanish language in the United States. ERIC Document Reproduction Service No. ED 295 485. Washington, DC: Hispanic Policy Development Project.
- West, S. G., Aiken, L. S., & Krull, J. L. (1996). Experimental personality designs: Analyzing categorical by continuous variable interactions. *Journal of Personality*, 64, 1–48. doi:10.1111/j.1467-6494.1996. tb00813.x

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