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EMPIRICAL RESEARCH

Filling Gaps in the Acculturation Gap-Distress Model: Heritage Cultural Maintenance and Adjustment in Mexican–American Families

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Abstract The acculturation gap-distress model purports that immigrant children acculturate faster than do their parents, resulting in an acculturation gap that leads to family and youth maladjustment. However, empirical support for the acculturation gap-distress model has been inconclusive. In the current study, 428 Mexican–American adolescents (50.2 % female) and their primary caregivers independently completed questionnaires assessing their levels of American and Mexican cultural orientation, family functioning, and youth adjustment. Contrary to the acculturation gap-distress model, acculturation gaps were not associated with poorer family or youth functioning. Rather, adolescents with higher levels of Mexican cultural orientations showed positive outcomes, regardless of their parents' orientations to either American or Mexican cultures. Findings suggest that youths' heritage cultural maintenance may be most important for their adjustment.

Keywords Adolescence · Immigrants · Acculturation gap · Culture · Family

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Introduction

Acculturation is a developmental process in which individuals come in contact with and adapt to a new culture (Ferguson 2013), most commonly in the context of immigration. Immigrants must choose which cultural values and customs to retain from their heritage culture while simultaneously attaining cultural compatibility with their host culture. This process can be especially challenging for immigrant families (Sluzki 1979), where immigrant parents and their children may adapt to their new host culture at different rates, leading to intergenerational discrepancies in cultural values, or *acculturation gaps* (Costigan and Dokis 2006a; Phinney et al. 2000). The acculturation gap-distress model purports that immigrant children acculturate faster to the new host culture than their parents do, and family conflict and youth maladjustment arise as a result (Szapocznik and Kurtines 1993). However, empirical support for this model has been inconclusive. In the current study, we took a comprehensive approach to carefully examine cultural discrepancies between Mexican–American adolescents and their parents.

Increasing attention has been paid to the possible deleterious effects of acculturation gaps on youth adjustment and family functioning. In the past 20 years, over 50 studies have tested the acculturation gap-distress model (see Telzer 2010 for review of 36 studies). However, most studies have either found no support or have produced

conflicting findings that suggest that gaps sometimes relate to *better* youth adjustment and family functioning (e.g., Lau et al. 2005; Schwartz et al. in press). Several major limitations account for these discrepant findings. First, cultural orientations have not always been independently measured through both youth and parent reports. Rather, many studies have relied on perceived acculturation gaps (i.e., adolescent reports of their own acculturation and their perceptions of their parents' acculturation). These perceived discrepancies are consistently associated with a host of maladaptive outcomes such as youths' disrupted family relationships (e.g., Dinh and Nguyen 2006), substance use (e.g., Unger et al. 2009), and internalizing symptoms and social stress (e.g., Ansary et al. 2013). However, actual discrepancies (i.e., those calculated based on adolescents' and parents' independent reports of their own cultural orientations) are often not associated with negative outcomes (see Telzer 2010 for review). Second, cultural orientations to the host and heritage culture are commonly treated as opposing poles of a single dimension, resulting in heritage cultural loss and host cultural orientation being confounded. Third, acculturation gaps have often not been appropriately calculated, resulting in misinterpreted results.

Measuring Acculturation Gaps

Bidimensional Approach to Acculturation Gaps

The processes of adapting to a new culture can be difficult because individuals must decide which cultural behaviors or values to adopt from the host culture and which to retain from their culture of origin (Bornstein and Cote 2006). Traditional models proposed that acculturation occurs along a linear, unidimensional path. On one end, immigrants are not acculturated to the host culture and are completely oriented towards their culture of origin. On the other end, immigrants are completely acculturated to the host culture and have lost their heritage cultural orientation (Ryder et al. 2000). Recent bidimensional models of acculturation take into consideration the independent functions of host and heritage cultural orientations and propose that immigrants can adopt and maintain beliefs, values, and behaviors from more than one culture, with adaptation to a new culture being independent of maintenance of the heritage culture (Berry 2006). These cultural orientations are referred to as acculturation and enculturation. Whereas acculturation is the process of adapting the attitudes, behaviors, and values of the host culture, enculturation refers to the extent to which immigrants retain their culture of origin involvement (Berry 1980; Kim 2008).

Many prior studies assessing the acculturation gap-distress model have either failed to simultaneously assess heritage and host cultural orientations (e.g., Cox et al. 2013) or have taken a unidimensional approach (e.g., Marsiglia et al. 2014), confounding host cultural attainment with heritage cultural loss. Studies that have taken a bidimensional approach (i.e., treated orientations to host and heritage cultures as independent of one another; Berry 2006) show a more complex story. For instance, in the case where adolescents are more acculturated in the host culture than are their parents (i.e., acculturation gap), a few studies have linked this gap to family and youth maladjustment but significant findings tend to be sparse and accompanied by several nonsignificant effects (e.g., Bámaca-Colbert et al. 2012; Schwartz et al. 2012; see Telzer 2010 for a review). Although fewer studies have independently assessed cases in which adolescents and parents differ in their orientation to their heritage culture (i.e., enculturation gaps), these studies have more consistently found that this gap is related to poorer youth adjustment when adolescents are less enculturated than are their parents. That is, when adolescents report a lower orientation to their culture of origin than do their parents, youth show greater maladjustment and family conflict (e.g., Chen et al. 2014; Goforth et al. 2015; Ho 2010).

Together, mixed evidence can be linked, in part, to whether acculturation or enculturation was being assessed. Further, most prior studies have labeled all gaps in cultural orientation as "acculturation gaps," regardless of the dimension of assessment. We adopt the term "enculturation gaps" in an effort to untangle these findings. To properly understand the implications of the acculturation process on family and youth well-being, it is essential for studies to take a bidimensional approach and independently assess both acculturation and enculturation gaps.

Calculation of Acculturation Gaps

Researchers have calculated the presence of cultural gaps in several ways. The most common method is to calculate a *difference score* where the parent's level of acculturation is subtracted from the child's or vice versa. The benefit of this type of measurement is that it allows for the examination of the relative distance between parent and child acculturation levels (Atzaba-Poria and Pike 2007). However, a major limitation is that the difference score method does not account for the overall mean levels of child and parent cultural orientations. As a consequence, it is unclear from studies utilizing this approach whether the significant findings are really due to cultural discrepancies or rather to youths' overall high or low orientations (Telzer 2010). For example, if adolescents report very low heritage cultural orientations, difference scores may appear to show significant discrepancies, with parents being significantly higher than youth in heritage cultural orientations. However, any

associations with family functioning and youth adjustment may be driven by adolescents' overall low heritage cultural orientations and not by the size of the discrepancy itself (Birman 2006).

The *interaction* is a more ideal method for computing acculturation discrepancies (Birman 2006; Telzer 2010). In this method, the child and parent's acculturation levels are centered and multiplied (i.e., creating an interaction term), then entered in a regression simultaneously with the main effects of both the child and parent's acculturation level. Although the interaction method is becoming increasingly common, some studies have focused solely on the significance of the acculturation gap interaction, disregarding the independent contributions of youth and parent cultural orientations (e.g., Lazarevic et al. 2012). However, it is critical to also utilize the main effects in order to examine whether it is the child's cultural orientation irrespective of the parents' or the parents' cultural orientation irrespective of the child's that relates to family and youth adjustment. The model then examines whether parent-adolescent acculturation gaps predict family relationships above and beyond the main effects of individual cultural orientations. Moreover, in the interaction method, parents' acculturation levels are centered relative to the distribution of parent acculturation and youths' acculturation levels are centered relative to the distribution of youth acculturation. Thus, interactions provide information about parent and youth acculturation levels relative to their counterparts in the sample under study.

Heritage Cultural Maintenance

In addition to methodological concerns with measuring acculturation gaps, a focus on how cultural discrepancies in the heritage and host culture differ is an important avenue of exploration. Discrepancies in the host culture (i.e., acculturation gaps) may not be negative, as was originally conceptualized by the acculturation gap-distress model (Szapocznik and Kurtines 1993), whereas gaps in the heritage culture (i.e., enculturation gaps) may be more maladaptive, especially when youth are less enculturated than are their parents. Indeed, as reviewed in Telzer (2010), acculturation gaps are rarely associated with youth maladjustment whereas studies have consistently found that enculturation gaps are associated with increased family conflict and youth maladjustment (e.g., Goforth et al. 2015; Ho 2010). This is consistent with a growing body of literature on ethnic identity, which is positively linked with youths' psychological well-being (e.g., self-esteem, happiness; Kiang et al. 2006; for a review see Neblett et al. 2012), and has been found to act as a buffer against discrimination (Umaña-Taylor et al. 2012).

That enculturation gaps and not acculturation gaps consistently relate to poorer outcomes suggests that maintaining strong ties to one's heritage culture is especially important for adolescents. Indeed, even in the presence of an acculturation or enculturation gap, youth and family well-being may not be jeopardized if youth are experiencing the protective effects of strong heritage culture orientation. Although this is a key question, it is not clear from prior research whether it is enculturation gaps that are most maladaptive or whether it is youths' heritage cultural loss, irrespective of their parents' heritage cultural orientations, that is maladaptive. This distinction is important but is missed when acculturation and enculturation are not treated as bidimensional, and when cultural gaps are not calculated using the interaction method.

Current Study

The current study carefully assesses cultural orientations in the host and heritage culture and examined mean level cultural orientations simultaneously with cultural gaps in order to untangle these discrepant findings in the literature. We specifically tested the hypothesis that adolescents' cultural maintenance may be more important for their adjustment and family relationships than is the presence of parent–child cultural discrepancies. Our first goal was to examine how acculturation and enculturation gaps are associated with family functioning and youth adjustment. We examined cultural orientations in multiple domains (i.e., behavioral practices, language proficiency, and cultural values) across both American and Mexican dimensions, providing a deeper understanding of when and if cultural discrepancies are maladaptive. Our second goal was to support the notion that adolescents' heritage culture maintenance, not cultural gaps, are the most meaningful predictors of family and adolescent well-being. To this end, we examined how adolescents' cultural orientations in both American and Mexican dimensions simultaneously interacted to predict family functioning and youth adjustment. The goal of this analysis was to test in adolescents alone whether their Mexican cultural orientations were associated with family functioning and youth adjustment, above and beyond the effects of their own American cultural orientations. In other words, will adolescents with high Mexican cultural orientation evidence better adjustment even if they have low American cultural orientation?

Method

Participants

Participants included 428 (50.2 % female) 9th and 10th grade adolescents (M_{age} = 15.02 years, SD = 0.83 years)

from Mexican backgrounds and their primary caregivers. The primary caregiver was the person who self-identified as the adult who spent the most time with the adolescent and knew about the adolescents' daily activities. The primary caregivers who participated were predominantly the adolescent's mother (82.9 %) or father (13.1 %), with the remaining 4 % being grandparents, aunts, or uncles. Given that 96 % of the primary caregivers were mothers or fathers, we use the term "parents" throughout the paper for the sake of simplicity. The majority of adolescents were from immigrant families: 12.6 % of adolescents were first generation immigrants (i.e., both the adolescent and parents were born in Mexico), 68.9 % were second generation (i.e., adolescent was born in the U.S. but at least one parent was born in Mexico), and 18.5 % were third generation or greater (i.e., both the adolescent and parents were born in the U.S.). Participants were from households of relatively low socioeconomic status with 63 % of mothers and 63.8 % of fathers not completing high school, and 33.6 % of mothers and 19.6 % of fathers being unemployed. Of the employed parents, 51.8 % of mothers and 56.9 % of fathers had unskilled or semi-skilled jobs. The majority (85.5 %) of adolescents lived in dual-parent households (i.e., at least two adults in the home).

Procedure

Participants were recruited from two public high schools in the Los Angeles metropolitan area. The student bodies of both schools were predominantly Latino/a (62 and 94 %) from lower- to lower-middle class families. In both schools, over 70 % of students qualified for free or reduced meals (California Department of Education 2011). Students were recruited during the 2009–2010 academic year. Classroom rosters of all 9th and 10th graders were obtained from the participating schools and then randomly allocated for study recruitment across the school year. Each week, several classrooms were selected and presentations about the study were given during class. Consents were mailed to students' homes and phone calls to parents were made to determine interest and eligibility. Both the adolescent and primary caregiver had to report a Mexican background and be willing to participate. A total of 428 families agreed to participate, which represented 63 % of families who were reached by phone and determined to be eligible for the study. Interviewers visited participants at home, where adolescents completed a self-report questionnaire and parents participated in a personal interview during which the interviewer guided them through a similar questionnaire and recorded their responses. Participants could choose to take the survey in either English or Spanish. Seventy-one percent of parents and 1.4 % of adolescents completed the questionnaire in Spanish.

Measures

Cultural Orientations

Adolescents and their parent independently completed measures that assessed their cultural orientations in multiple domains including their behavioral practices, language proficiency, and cultural values. These domains were independently measured for both Mexican and American orientation, except for cultural values, in which the measure tapped traditionally Mexican values without a parallel American measure.

Behavioral Practices Mexican and American behavioral practices were measured using the Acculturation Rating Scale for Mexican–Americans (ARSMA; Cuellar et al. 1995). Using a 5-point scale (1 = *not at all* to 5 = *very much*), participants answered six questions indicating the extent to which they enjoy Mexican practices and six parallel items indicating the extent to which they enjoy American practices. Example items included, "How much do you enjoy listening to Spanish [English] language music?" and "How much do you enjoy eating Mexican [Anglo American] food?" The scale had good internal consistency for Mexican (adolescent: $\alpha = .75$; parent: $\alpha = .75$) and American (adolescent: $\alpha = .74$; parent: $\alpha = .82$) behavioral practices.

Language Proficiency Adolescent and parent language proficiency in English and Spanish were each measured with two questions using a 5-point scale (1 = *not well at all* to 5 = *extremely well*) to indicate how well they could "speak and understand" and "read and write" English and Spanish. The scale had excellent internal consistency (English: adolescent: $\alpha = .80$; parent: $\alpha = .95$; Spanish: adolescent: $\alpha = .84$; parent: $\alpha = .90$).

Cultural Values Adolescents completed 25 questions describing their values regarding family obligation, a set of values traditionally emphasized in Mexican culture (Fuligni et al. 1999). Adolescents responded using a 5-point Likert-type scale measuring their attitudes regarding *current assistance to the family* (e.g., how often do you think you should "help take care of your brothers and sisters," "eat meals with your family," and "spend time with your family on weekends"), *respect for the family* (e.g., how important is to you to "make sacrifices for your family," "respect your older brothers and sisters," and "show great respect for your parents"), and *future support to the family* (e.g., how important is it to you that in the future you "help your parents financially in the future," "help take care of your brothers and sisters in the future," and "have your parents live with you when you get older").

All 25 items were averaged to create an index of family obligation values. Parents completed a modified version of the scale in which they answered the same questions using the same 5-point scales, but were instead asked to describe how important it is to them that their child does each of the activities. Thus, discrepancies in cultural values represent differences in how the child and parent perceive the child's role. The scale had good internal consistency (adolescent: $\alpha = .90$; parent: $\alpha = .74$).

Acculturation and Enculturation Gaps

To examine cultural gaps, we utilized two methods. First, we computed difference scores, in which we subtracted the parents' scores from the adolescents' scores. We computed differences scores for each individual item for each measure before computing the mean difference score for each domain of cultural orientation. Thus, positive scores indicate greater discrepancies with teens reporting higher cultural orientations than their parents, negative scores indicate greater discrepancies with parents reporting higher cultural orientations than their child, and scores around 0 indicate no discrepancies. Secondly, we conducted interaction analyses, in which we used the main effect of each cultural orientation for adolescents and parents, as well as the adolescent × parent interactions.

Youth Adjustment

Youth adjustment was measured in multiple domains, including internalizing and externalizing symptoms, which were assessed through parent and adolescent reports, and academic achievement, which was assessed through official school records.

Internalizing and Externalizing Symptoms Adolescents and parents each independently completed the Youth Self Report (YSR; Achenbach 1991b) and Achenbach Child Behavior Checklist (CBCL; Achenbach 1991a), respectively, in order to assess both internalizing and externalizing symptoms. Using a 3-point scale (0 = *not true*, 1 = *somewhat or sometimes true*, and 2 = *often true*), participants answered 30 questions regarding adolescents' internalizing symptoms such as anxiety, withdrawn behaviors, and somatic complaints. The scale had excellent consistency (adolescent: $\alpha = .88$; parent: $\alpha = .86$). Using the same scale, adolescents and parents answered 30 questions assessing adolescents' externalizing behaviors, such as associating with deviant peers, using drugs, and skipping school. The scale had excellent internal consistency (adolescent: $\alpha = .86$; parent: $\alpha = .89$).

GPA Using a 5-point scale (0 = *F* to 4 = *A*), GPA was calculated by averaging students' grades across all their classes for both semesters of the school year.

Work Habits Teachers provided ratings (2 = *excellent*, 1 = *satisfactory*, 0 = *unsatisfactory*) for students' work habits. A work habits score was calculated by averaging teachers' reports across all of the adolescent's classes for both semesters of the school year.

Family Functioning

Both adolescents and parents reported on negative (i.e., conflict) and positive (i.e., support) aspects of their family relationships.

Family Conflict Adolescents and parents each responded to ten items assessing the frequency of parent–child conflicts in their home in the past month (Ruiz et al. 1998). For example, "you and your parents [child] yelled or raised your voices at each other", "you and your parents [child] ignored each other" and "your parents [child] let you know that they were angry or didn't like something you said or did". Participants used a 5-point scale ranging from 1 = *almost never* to 5 = *almost always*. The scale's internal consistency was excellent (adolescent: $\alpha = .86$; parent: $\alpha = .88$).

Family Support Family support was measured using the parent subscale of the Inventory of Parent and Peer Attachment (IPPA; Armsden and Greenberg 1987). Using a 5-point scale (1 = *almost never* to 5 = *almost always*), adolescents answered seven questions indicating their feelings of closeness to and support from their parents. Example items for adolescents included "When I was angry about something, my parents tried to be understanding." Parents answered parallel questions indicating how close to and supportive they were of their children. The scale had excellent internal consistency (adolescent: $\alpha = .94$; parent: $\alpha = .82$).

Control Variables

All analyses controlled for parent participant (0 = *mom* and 1 = *not mom*), adolescent gender (0 = *male* and 1 = *female*) and generation (with first and second generation entered as dummy coded variables such that third generation adolescents served as the reference group). In addition, we controlled for family socioeconomic status (SES), which was assessed via parental report of the mother's and father's highest level of education, which was measured with a scale that ranged from "elementary/junior high school," "some high school," "graduated from high school," "some

college," "graduated from college," to "law, medical, or graduate school." The primary caregiver also reported the mother and father's occupational status, which was coded on a five point scale (1 = *unskilled level* to 5 = *professional level*). Examples of unskilled worker included furniture mover, gas station attendant, food service worker, and housecleaner; semiskilled worker included baker, cashier, landscaper, and security guard; skilled worker included appraiser, barber, seamstress, and electrician; semiprofessional worker included nurse, librarian, optometrist, and office manager; and professional worker included architect, dentist, computer consultant, and physician. Occupational status was not coded if the participant indicated that a parent was unemployed. Family SES was computed by averaging the standardized mother and father education and occupation.

Results

Descriptives

Correlations and Differences in Adolescents' and Parents' Cultural Orientations

Correlations between all cultural domains for adolescents and parents are presented in Table 1. Mean levels of acculturation for parents and adolescents are presented in Table 2. We examined differences in adolescent and parent reports of their cultural orientations by computing paired-samples t-tests. As shown in Table 2, adolescents reported significantly higher American behavioral practices and English proficiency than parents, whereas parents reported significantly higher Mexican behavioral practices and Spanish proficiency. Parents and teens did not differ in their family obligation values.

Gender, Generation, and SES Differences in Cultural Orientations

Next we examined whether adolescents' cultural orientations differed depending on child gender, generation, and family SES. As shown in Table 3, male and female adolescents did not differ in English proficiency or family obligation values. However, females reported significantly greater American and Mexican behavioral practices, and Spanish language proficiency than did males. In terms of generation, we found a similar pattern across the cultural domains, such that adolescents and parents from immigrant families (i.e., first and second generations) tended to report lower American behavioral practices and English proficiency but greater Mexican behavioral practices and Spanish proficiency than third generation youth. There were no generation differences in adolescents' reports of family obligation values, although immigrant parents had higher family obligation values than non-immigrant parents. In terms of SES, we ran regression analyses in which we controlled for generation, since SES and generation tend to be highly confounded. Adolescents from households of higher SES tended to report lower Mexican behavioral practices and Spanish proficiency but higher English proficiency. Parents of lower SES tended to report lower Mexican behavioral practices and family obligation but higher American behavioral practices and English proficiency.

Gender, Generation, and SES Differences in Cultural Discrepancies

Next we examined gender, generation, and SES differences in cultural discrepancies. For these analyses, we calculated the difference scores (adolescent minus parent) for each cultural orientation. Negative scores represent dyads where the parent reports higher cultural orientations, whereas positive scores represent dyads where adolescents report higher cultural orientations. Scores that do not significantly differ from 0 suggest that parents and their adolescent report similar cultural orientations. Table 4 shows the acculturation discrepancies for each gender and generation as well as for low and high SES families.

As shown in Table 4, male and female adolescents differed in their parent–child discrepancies for Mexican behavioral practices, such that females demonstrated a smaller discrepancy than males who had parents who were significantly more oriented towards Mexican behavioral practices. There were no gender differences in cultural discrepancies for the other cultural orientations. In terms of generational status, adolescents from immigrant (i.e., first and second generation) compared to non-immigrant families tended to be more oriented towards American behavioral practices and were more proficient in English than their parents. Although third generation youth showed significantly different discrepancies in family obligation values compared to second generation youth, the gaps were not significantly different from 0 for either group, suggesting that parents and adolescents of all generations were similarly oriented to family obligation values. Finally, multiple regression analyses controlling for generational status showed that higher SES was associated negatively with differences in American behavioral practices, English proficiency, and Spanish proficiency and was associated positively with differences in family obligation values. For descriptive purposes, we divided the sample into families who were 1 standard deviation below the mean on SES (low SES) and 1 standard deviation above the mean on SES (high SES). As shown in Table 4, cultural gaps in the host culture (American behavioral practices, English

Table 1 Correlations among adolescent and parent cultural orientations

Cultural variable	1	2	3	4	5	6	7	8	9	10
Adolescent										
1. American behavior	1									
2. Mexican behavior	.07	1								
3. English proficiency	.24***	−.10*	1							
4. Spanish proficiency	−.08	.47 ***	.02	1						
5. Family obligation	.09	.36***	−.01	.17***	1					
Parent										
6. American behavior	.13**	−.19***	.16***	−.37***	.05	1				
7. Mexican behavior	−.04	.28***	−.14**	.28***	.05	−.16***	1			
8. English proficiency	.15**	−.29***	.28***	−.39***	−.08	.66***	−.32***	1		
9. Spanish proficiency	.04	.18***	−.02	.34***	.01	.33***	−.09	−.09	1	
10. Family obligation	.03	.11*	−.07	.07	.13**	−.13**	.29***	−.23***	−.11*	1

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 2 Adolescent and parent cultural orientations

Cultural domain	Adolescent *M (SD)*	Parent *M (SD)*	*t* test
American behavior	4.18 (0.75)	3.54 (0.99)	$t(424) = 11.52$***
Mexican behavior	3.47 (0.87)	4.10 (0.77)	$t(424) = 13.26$***
English proficiency	4.34 (0.74)	2.76 (1.38)	$t(424) = 23.78$***
Spanish proficiency	3.20 (1.08)	4.04 (1.01)	$t(412) = 13.69$***
Family obligation	3.67 (0.53)	3.61 (0.65)	$t(426) = 1.46$

t test represents paired samples *t* tests examining within-family differences in adolescent and parent cultural orientations

*** $p < .001$

proficiency) were larger for low SES than high SES families, such that teens were more oriented than their parents. In contrast, cultural gaps in the heritage culture (Spanish proficiency) were larger for high SES than low SES families, such that parents were more oriented than their children.

Linking Cultural Discrepancies to Family Functioning and Adolescent Adjustment

To examine whether cultural gaps relate to family functioning and youth we ran interaction analyses. For each cultural domain we entered adolescent and parent cultural orientation, which were each centered relative to the sample, and the interaction of the two to predict each outcome. Parent participant, gender, generation, and family SES were included as controls. We ran 50 separate models, one for each cultural variable and outcome. In order to guard against Type I and Type II errors, we corrected for multiple comparisons by dividing the *p* value (.05) by the number of tests (50), resulting in a corrected threshold of $p < .001$. Below we only report those results that survive a corrected threshold. However, we include the statistics and uncorrected *p* values in Table 5 for a complete description of the results.

The interactions are depicted in Table 5 in the row Adol. × Parent. At a corrected threshold, no interaction emerged as significant. In contrast, the main effects (i.e., adolescent- or parent-centered mean cultural orientations) were associated with family and adolescent outcomes at a corrected threshold. Adolescents with greater Mexican behavioral practices, regardless of their parents' Mexican behavioral practices, reported higher family support. Adolescents who reported higher Spanish proficiency and higher family obligation, regardless of their parents' level, reported higher family support and fewer internalizing and externalizing symptoms. Adolescents' English language proficiency and American behavioral practices were not associated with family functioning or adolescent outcomes at a corrected threshold. Together, these effects suggest that adolescents who retain the behaviors, language, and values of their culture of origin report better family functioning and youth adjustment, regardless of their parents' overall orientation toward their culture of origin. In order to guard against Type II errors, we note that 2 interactions are significant at a $p < .05$ level. Notably, each of these interactions are for enculturation gaps and not acculturation gaps.

Linking Adolescents' American and Mexican Cultural Orientations to Their Adjustment

Given the importance of heritage cultural orientations, as identified in our acculturation and enculturation gap analyses described above, our final set of analyses examined how Mexican and American cultural orientations function

Table 3 Gender, generation, and SES differences in cultural orientations

Demographic group	Cultural orientation				
	American behavior *M (SD)*	Mexican behavior *M (SD)*	English proficiency *M (SD)*	Spanish proficiency *M (SD)*	Family obligation *M (SD)*
Adolescent					
Gender					
Male	4.11 (0.76)	3.19 (0.84)	4.36 (0.72)	3.03 (1.06)	3.55 (0.67)
Female	4.25 (0.73)	3.74 (0.81)	4.33 (0.75)	3.29 (1.12)	3.67 (0.63)
Statistical test	$t(423) = 2.04$*	$t(424) = 6.83$***	$t(425) = -0.45$	$t(418) = 2.45$*	$t(425) = 1.94$
Generation					
First	3.91 (0.90)	3.74 (0.78)	3.94 (0.90)	3.88 (0.90)	3.70 (0.60)
Second	4.19 (0.71)	3.53 (0.84)	4.33 (0.71)	3.24 (1.00)	3.61 (0.68)
Third	4.31 (0.71)	3.04 (0.89)	4.66 (0.57)	2.33 (1.09)	3.59 (0.58)
Statistical test	$F(2,422) = 5.01$**	$F(2,423) = 13.60$***	$F(2,424) = 16.69$***	$F(2,417) = 40.80$***	$F(2,424) = 0.56$
	$1 < 3$	$1,2 > 3$	$1 < 2,3$; $2 < 3$	$1 > 2,3$; $2 > 3$	
SES					
Statistical test	$B = 0.06$, SE = 0.06	$B = -0.17$, SE = 0.07*	$B = 0.14$, SE = 0.06*	$B = -0.21$, SE = 0.08**	$B = -0.03$, SE = 0.05
Parent					
Generation					
First	2.94 (.90)	4.44 (.59)	1.80 (.82)	4.29 (.84)	3.71 (.52)
Second	3.39 (.93)	4.19 (.72)	2.48 (1.19)	4.15 (.83)	3.72 (.52)
Third	4.46 (.59)	3.57 (.84)	4.47 (.82)	3.362 (1.44)	3.44 (.54)
Statistical test	$F(2,425) = 60.03$***	$F(2,425) = 28.15$***	$F(2,425) = 127.50$***	$F(2,416) = 21.13$***	$F(2,425) = 9.35$***
	$1 < 2,3$; $2 < 3$	$1 > 2,3$; $2 > 3$	$1 < 2,3$; $2 < 3$	$1,2 > 3$	$1,2 > 3$
SES					
Statistical test	$B = 0.47$, SE = 0.10***	$B = -0.15$, SE = 0.06**	$B = 0.85$, SE = 0.08***	$B = 0.12$, SE = 0.08	$B = -0.16$, SE = 0.04***

Statistical test for gender represents an independent samples *t* test, for generation represents a one-way analysis of variance with Bonferonni post hoc tests, and for SES represents multiple regressions controlling for child generation

* $p < .05$; ** $p < .01$; *** $p < .001$

together within adolescents to predict adolescent adjustment, regardless of parents' cultural orientations. To conduct this analysis, we examined the main effect of adolescents' Mexican and American cultural orientations, as well as the interactions between the two. The analysis was run for behavioral practices and language proficiency for each outcome measure (i.e., 20 separate models). Again, we corrected for multiple comparisons by dividing the *p* value (.05) by the number of tests (20). This indicated a corrected significance level of .0025.

As shown in Table 6, adolescents who reported higher Mexican behavioral practices, regardless of their own American behavioral practices, had higher family support, and adolescents who reported higher Spanish proficiency, regardless of their own English proficiency, reported higher family support and fewer internalizing symptoms. In contrast, American behavioral practices and English proficiency were not associated with any outcomes at a corrected threshold.

In addition to these main effects, two significant interactions emerged. To explore the direction of the interactions, we followed the recommendations of Aiken and West (1991), in which we examined adolescents who were low (1 *SD* below the mean) and high (1 *SD* above the mean) on American behavioral practices. When adolescents reported low levels of American behavioral practices, their Mexican behavioral practices were associated with greater internalizing symptoms ($B = 2.4$, $SE = 1.2$, $p < .05$). However, when adolescents reported high levels of American behavioral practices, their greater Mexican behavioral practices were associated with lower internalizing symptoms ($B = -3.9$, $SE = 1.1$, $p < .001$). For work habits, when adolescents reported high English proficiency, their Spanish proficiency was not associated with their work habits ($B = .04$, $SE = .06$, *ns*). However, when adolescents had low English proficiency, their Spanish proficiency was associated with significantly better work habits ($B = .25$,

Table 4 Gender, generation, and SES differences in acculturation gaps

Demographic group	Cultural orientation				
	American behavior *M (SD)*	Mexican behavior *M (SD)*	English Proficiency *M (SD)*	Spanish proficiency *M (SD)*	Family obligation *M (SD)*
Gender					
Male	0.62 (1.09)‡	−0.91 (1.09)‡	1.69 (1.09)‡	−0.38 (0.65)‡	−0.10 (0.79)
Female	0.66 (1.23)‡	−0.37 (1.23)‡	1.72 (1.23)‡	−0.28 (0.70)‡	−0.03 (0.80)
Statistical test	$t(423) = 0.27$	$t(424) = 5.78$***	$t(425) = 0.23$	$t(411) = 1.54$	$t(425) = 0.89$
Generation					
First	0.97 (1.24)‡	−0.69 (1.24)‡	2.27 (1.24)‡	−0.19 (0.57)‡	−0.02 (0.76)
Second	0.80 (1.14)‡	−0.65 (1.14)‡	1.99 (1.14)‡	−0.33 (0.65)‡	−0.14 (0.79)
Third	−0.14 (0.79)	−0.53 (0.79)‡	0.29 (0.79)‡	−0.44 (0.92)‡	0.15 (0.78)
Statistical test	$F(2,422) = 25.40$*** 1, 2 > 3	$F(2,423) = 0.56$	$F(2,424) = 60.28$*** 1, 2 > 3	$F(2,410) = 2.20$	$F(2,424) = 4.21$* 3 > 2
SES					
Low	1.12 (1.14)‡	−0.57 (1.10)‡	2.26 (1.15)‡	−0.15 (0.65)	−0.20 (0.83)‡
High	0.21 (1.17)	−0.62 (0.91)‡	0.72 (1.33)‡	−0.49 (0.68)‡	0.15 (0.76)
Statistical test	$B = -0.40$ SE = 0.08***	$B = -0.02$, SE = 0.08	$B = -0.78$, SE = 0.10***	$B = -0.18$, SE = 0.05***	$B = 0.14$, SE = 0.06*

‡ Represents the acculturation discrepancy is significantly different from 0, as computed with a one-sample *t* test and as depicted in Table 2. Statistical test for gender represents independent samples *t* tests, for generation represents a one-way analysis of variance with Bonferonni post hoc tests, and for SES represents multiple regressions with SES entered continuously, controlling for child generation. Low and High SES represents families who were 1 SD below and above the mean on SES

* $p < .05$; ** $p < .01$; *** $p < .001$

$SE = .09$, $p < .005$), such that high Spanish proficiency was highly protective in the face of low English proficiency.

Discussion

The acculturation gap-distress model purports that immigrant adolescents acculturate to their new host culture at a faster pace than their parents, resulting in an intergenerational gap in acculturation levels that leads to poorer family functioning and heightened youth maladjustment (Costigan and Dokis 2006a; Phinney et al. 2000). This model has received considerable attention and has largely been accepted, despite a lack of strong empirical support. In the current study, we took a comprehensive approach to test the acculturation gap-distress model. We carefully assessed the presence of both acculturation and enculturation gaps and their relations to family functioning and youth adjustment. We did not find any evidence in support of the acculturation gap-distress model. Rather, a consistent pattern emerged in the opposite direction, such that adolescents' overall heritage culture maintenance, irrespective of their parents' cultural orientations and of the adolescent's host cultural orientation, was more predictive of their positive family functioning and well-being.

Cultural Discrepancies and Youth Adjustment

Our primary goal was to examine how acculturation and enculturation gaps related to family functioning and youth adjustment. We examined different domains of acculturation (behaviors, values, and language) across both Mexican and American dimensions separately, and links to multiple aspects of family functioning (conflict, support) and adolescent adjustment (internalizing and externalizing symptoms, grade point average, work habits). Importantly, when we conducted interaction analyses, no interactions emerged as significant.

Heritage Cultural Maintenance

Our study shows no support for the acculturation gap-distress model. In no case did we find any evidence that adolescents' greater host cultural orientation relative to their parents was associated with heightened family conflict and youth maladjustment. This is consistent with a recent review that indicated that no study to date had found support for this association (Telzer 2010). Prior research has found that when youth are *less* acculturated than their parent in the host culture (rather than more acculturated as proposed by the acculturation-gap distress model), youth evidence greater internalizing and externalizing symptoms (Atzaba-

Table 5 Associations between acculturation gaps and family functioning and youth adjustment

Cultural domain	Family support		Family conflict		Internalizing		Externalizing		GPA	Work habits
	Adol.	Parent	Adol.	Parent	Adol.	Parent	Adol.	Parent		
American behavior										
Adolescent	.06	.06	.13**	.04	.03	−.02	.07	−.03	−.07	−.09
Parent	.06	.18**	.05	.14*	.07	.04	−.08	.07	−.02	.03
Adol. × Parent	.04	−.01	−.03	−.02	−.04	−.07	−.06	−.05	.02	.02
Mexican behavior										
Adolescent	.18***	.18***	−.05	−.09	−.13*	−.04	−.15**	−.08	.07	.05
Parent	−.10*	.00	.05	.04	.05	.05	.12*	.05	−.16**	−.14**
Adol. × Parent	−.02	.06	−.01	.05	.00	.05	.01	.07	−.08	−.08
English proficiency										
Adolescent	.04	.05	.01	.01	−.05	−.03	.04	−.04	.05	.06
Parent	.03	.19**	.06	.25***	−.01	−.12	.00	.06	−.02	−.07
Adol. × Parent	.05	−.03	−.06	−.01	.05	−.05	.02	−.09	−.03	.01
Spanish proficiency										
Adolescent	.18***	.01	−.06	.00	−.22***	−.08	−.18***	−.06	.06	.06
Parent	−.08	.06	.00	−.06	.01	−.07	.08	.00	−.12*	−.13*
Adol. × Parent	.02	.02	.01	−.01	−.04	−.01	−.03	−.04	−.06	−.05
Family obligation										
Adolescent	.52***	.22***	−.11*	−.14**	−.23***	−.09	−.33***	−.18***	.10*	.09
Parent	−.06	.07	.00	.00	.03	.05	.03	.04	−.02	−.02
Adol. × Parent	.13**	.05	−.05	.00	−.03	−.02	−.10*	−.04	−.01	.02

For multiple comparison correction, a p value of .001 is needed. Values represent the standardized coefficient (β). Child gender and generation (dummy coded with third generation youth serving as the reference group), family SES, and parent status (i.e., mother, not mother) were entered as covariates. Along the columns, Adol. and Parent refer to adolescent and parent reports for each dependent variable

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 6 Associations between adolescents' cultural orientations and family functioning and youth adjustment

Cultural domain	Family support		Family conflict		Internalizing		Externalizing		GPA	Work habits
	Adol.	Parent	Adol.	Parent	Adol.	Parent	Adol.	Parent		
Behavioral practices										
Mexican	.14***	.17***	−.06	−.09	−.12*	−.04	−.13*	−.08	.05	.04
American	.06	.06	.14*	.07	.06	−.01	.09	.00	−.08	−.10*
Mexican × American	.01	.04	−.04	−.10*	−.13**	−.04	−.07	−.05	−.07	−.10*
Language proficiency										
Spanish	.17**	.01	−.06	−.05	−.22***	−.07	−.17**	−.06	.01	.03
English	−.01	.06	.04	.06	−.02	−.01	.07	.03	.05	.04
Spanish × English	.01	−.04	.04	−.04	.02	.02	.00	.04	−.10†	−.14**

For multiple comparison correction, a p value of .0025 is needed. Values represent the standardized coefficient (β). Child gender and generation (dummy coded with third generation youth serving as the reference group), family SES, and parent status (i.e., mother, not mother) were entered as covariates. Along the columns, Adol. and Parent refer to adolescent and parent reports for each dependent variable

* $p < .05$; ** $p < .01$; *** $p < .001$

Poria and Pike) and poorer family relationships (Costigan and Dokis 2006b). Together, this suggests that acculturation gaps in which youth are more oriented to the host culture than their parent may actually be a normative experience among immigrant families and therefore not related to negative outcomes. Thus, attaining cultural compatibility in

the host culture may be an asset for youth who can then assist their families in adjusting to new cultural values and customs, and is therefore not problematic for youth adjustment (Bacallao and Smokowski 2007).

Rather than acculturation gaps leading to poor family functioning and youth maladjustment, a very consistent picture emerged in which adolescents' own heritage cultural involvement predicted their family functioning and adjustment, above and beyond the effects of parental cultural orientations, generational status, and socioeconomic status. When adolescents reported greater Mexican behavioral practices, better Spanish proficiency, and more family obligation values, they evidenced better family functioning and youth adjustment. We found these effects irrespective of the parents' level of cultural orientation, suggesting that adolescents' maintenance of their heritage culture is highly protective. In addition, when we examined the interaction between adolescents' own heritage and host cultural involvement, a similar pattern emerged, suggesting that involvement in Mexican behavioral practices and proficiency in Spanish is protective, even when adolescents report low host cultural involvement. In fact, the main effects indicated consistent patterns where heritage cultural involvement was associated with better family functioning and youth adjustment, and host cultural involvement was unrelated to these outcomes.

In addition, the only two interactions to emerge before correcting for multiple comparisons were for enculturation gaps, with no significant effects for acculturation gaps. Both of the interactions demonstrated that when parents endorsed higher family obligation values than their child, adolescents reported lower family support and more externalizing symptoms. Thus, enculturation gaps may be more indicative of family stress than are acculturation gaps. This finding highlights the importance of youth maintaining a strong sense of connection to their heritage culture. When their values are lower than that of their parents, family conflict and youth maladjustment may arise. Enculturation gaps may therefore be indicative of cultural conflict within the family.

Together, our findings underscore that maintaining involvement with one's culture of origin is important for immigrant youth adaptation. Indeed, retention of traditional values has been associated with more positive family relationships (Smokowski et al. 2008) and less distress (Telzer et al. 2015). Youth who do not maintain their traditional cultural values and customs may not receive the support and structure from their families to help them deal with the challenges associated with being a teenager in their host culture. This is a key finding that has often been overlooked in studies that test the acculturation gap-distress model. Future research should continue to carefully assess acculturation and enculturation gaps using more refined methodological tools in order to accurately understand how these cultural discrepancies map onto youths' adjustment and well-being.

Characterizing Acculturation and Enculturation Gaps

In addition to examining how cultural gaps relate to family functioning and youth adjustment, we also descriptively examined acculturation and enculturation gaps. We found evidence for generational differences in cultural dissonance, such that first and second generation youth tended to have greater acculturation discrepancies in American behaviors and English proficiency than their third generation peers who, along with their parents, were born in the United States and were therefore less likely to engage in differential cultural behaviors and language proficiency. Thus, for immigrant families, adolescents tended to be relatively more oriented towards American behavioral practices and more proficient in English compared to their parents. This suggests, in part, that acculturation discrepancies are an immigrant phenomenon that families who have been in the host culture for longer experience less commonly. Prior research has suggested that intergenerational discrepancies are normative aspects of adolescent development and socialization that all families experience regardless of immigrant status (Phinney et al. 2000). However, our data suggest that cultural discrepancies are more pronounced in immigrant families.

Finally, we found differences in cultural discrepancies depending upon the family's SES. When adolescents were from relatively low SES families, they tended to be more oriented to the host culture than were their parents (i.e., greater engagement in American behavioral practices, more proficient in English), whereas adolescents of high SES did not differ from their parents. For Spanish proficiency, adolescents from high SES families were less proficient than their parents, whereas low SES adolescents did not differ from their parents. More educated parents and families with higher SES may have the social and monetary resources to spend more time learning English and engaging in U.S. culture, therefore overcoming some challenges associated with the acculturative process (Telzer 2010). Indeed, parents of higher SES families were more likely to be more proficient in English and to engage in more American behavioral practices. Thus, cultural discrepancies, especially in the host culture, may be particularly pronounced in lower SES families. It is unclear, however, whether higher SES facilitates more acculturation or whether being more acculturated facilitates being more integrated into mainstream society and having greater access to better educational and occupational prospects.

Limitations and Future Directions

Given the cross-sectional nature of the study, we cannot examine acculturative changes as they unfold. Examining the processes by which heritage cultural values and behaviors are maintained versus lost would be a significant contribution given our findings that heritage cultural maintenance is highly protective. Moreover, longitudinal research has the ability to examine whether acculturation and enculturation gaps change as immigrant families spend more time in their host culture. The changing nature of these gaps, rather than the mere presence of a gap, may have stronger implications for family functioning and youth adjustment. In addition, future research should examine enculturation and acculturation gaps among diverse cultural groups such as those from Asian backgrounds to test whether cultural maintenance is similarly protective for these families. Finally, we did not have enough fathers and mothers in our study to examine gender differences among parents. It is essential for future research to carefully examine acculturation differences within the same families by testing associations among mother–child, father-child, and mother-father dyads. Thus, the importance of acculturation differences in one dyad may best be understood in the context of the entire family unit (Costigan 2010).

Conclusions

The acculturation gap-distress model presents a deficit perspective, suggesting that adolescent's higher orientation to their host culture than their parents will result in family conflict and youth maladjustment. We rigorously tested this model, examining acculturation in multiple domains and measuring diverse adolescent and family outcomes. We found no evidence supporting the acculturation gap-distress model, strongly suggesting that the model is largely overstated. Therefore, new models should be developed that more accurately capture acculturative processes in immigrant families. Rather than taking a deficit perspective, such models can focus on positive aspects of youth development and acknowledge the very adaptive role that acculturation and enculturation processes may have for adolescents.

In conclusion, our findings consistently demonstrated the important role of heritage cultural maintenance for adolescents' adjustment. Thus, ties to one's native culture should be kept strong so that adolescents can maintain a sense of cultural identity and connection to their heritage culture in the midst of learning the mainstream culture. Families, schools, and clinicians should find ways to incorporate culture into adolescent education in order to encourage and support adolescents' maintenance of their heritage cultural values.

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