Never Mind the Acculturation Gap: Migrant Youth's Wellbeing Benefit When They Retain Their Heritage Culture but Their Parents Adopt the Settlement Culture

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Abstract

The extent to which migrant families successfully navigate their settlement and heritage cultures has been associated with family members' well-being. Specifically, parent-offspring acculturation gaps are purportedly linked to negative outcomes. Inconsistences in prior research are discussed in light of possible concerns relating to conceptual clarity and methodological limitations. To examine these, a study of 153 youth-parent dyads (youth sample: 58% female, M_{age}=19.64, range=13-25) was conducted. Participants were asked to assess their acculturation *and* that of their relative. Using multilevel regression, individual acculturation, but not acculturation gaps, was associated with youth well-being. Heritage engagement of youth and settlement engagement of their parents was beneficial, whereas parent's heritage engagement was detrimental. Thus, integration at the family level is likely to maximize migrant youth well-being.

Keywords: Immigrant Youth, Acculturation Gaps, Family, Well-being

Introduction

Acculturation refers to the process of change in an individual's beliefs, values and behaviors as a result of prolonged contact with multiple cultures (Ward and Geeraert 2016). Migrants need to select which behaviors and values to retain from their *heritage* culture, while also ensuring engagement with their *settlement* culture (Berry 2019). Acculturation becomes even more complex within a family context, as migrant parents and their offspring may acculturate at different levels and speed (Costigan and Dokis 2006). Compared to their parents, offspring have been shown to adjust faster and more strongly to the settlement culture, while they maintain heritage practices to a lesser extent (Birman 2006; Phinney et al. 2000).

It has been proposed that such *acculturation gaps*, between parents and offspring, may lead to intergenerational conflict and migrant youth maladjustment. Although this *acculturation gap-distress model* has been studied extensively, findings have been largely inconclusive. The use of different populations and different conceptual and methodological approaches, may partly explain different patterns of results. Notable differences are the use of self-report versus perceived acculturation, different analytic approaches, and possible moderators. The current study has a number of aims. It directly compares participants' self-reported versus perceived acculturation gaps. Second, the study contrasts different statistical techniques to analyze the acculturation gap-distress model. Finally, the role of cultural distance as a moderator in the gap-distress model is examined.

Acculturation

Originally, acculturation was proposed as a unidimensional and unidirectional process in which individuals move away from their heritage culture toward assimilation into the settlement culture. Thus the endorsement of one culture would be associated with the

rejection of the other culture (Ryder et al. 2000). One of the underlying assumptions of the *assimilation model* is that acculturating populations, such as migrants, are either inferior to or pose a risk for the majority group (Rudmin 2009). Consequently, the need for the migrant group to assimilate is in the interest of the minority or majority group respectively. From this perspective, the model seems politically-driven. Moreover, this approach is unable to account for migrants' desire to maintain their original culture (Portes and Rumbaut 2001).

An alternative model, with a stronger theoretical and empirical underpinning, is the acculturation strategies framework (Berry 2019). This model assumes that acculturation is a bilinear process placing acculturation along two dimensions concerning the retention of an individual's heritage culture (i.e. "Is it considered to be of value to maintain one's identity and characteristics?"), and the adoption of the settlement culture, ("Is it considered to be of value to maintain relationships with the larger society?"). Studies often find a small to medium, yet non-significant, negative association between the two dimensions, supporting their theorized independence (Lee et al. 2006; Tsai et al. 2000).

Four possible acculturation strategies are derived from these dimensions (Berry 2009): 1) Integration (high adaptation of the settlement culture while maintaining culture of origin) leads to, and is often synonymous with biculturalism. 2) Assimilation (high adaptation of the settlement culture, at the detriment of the heritage culture) can either be chosen by individuals or forced by governments. 3) Separation (rejection of the settlement culture, at the advantage of the heritage culture) is often facilitated by immigration to ethnic enclaves. And finally 4) marginalization when individuals reject both the settlement and heritage culture. Integration has often been proposed as the most effective of these strategies (Berry 2019), and indeed a meta-analysis of 83 studies concluded that integration had the strongest association with well-being (Nguyen and Benet-Martinez 2013).

Acculturation Gap-Distress

In the context of families, intergenerational acculturation gaps are often observed. Through their clinical work, Szapocznik and Kurtines (1993) first suggested that acculturation gaps may be a factor in offspring problem behavior and family conflict. Portes and Rumbaut (2001) proposed a typology of three acculturation patterns, of which one leads to parent-offspring conflict. Intergenerational conflict is low when family members learn the settlement culture and language at a comparable pace (consonant acculturation), or when the cultural and language ability of the second-generation offspring compensate for the limited ability of the parents (selective acculturation). However, when offspring's immersion in the host culture and language exceeds that of their parents', families often display a loss of parental authority, decreased understanding of the parents by the offspring, and parental demands of maintaining home country cultural values: all of which can be very challenging for offspring (dissonant acculturation). Based on these theories, the acculturation gap-distress model has been developed to describe a specific immigrant phenomenon. However, findings from several empirical studies of immigrants have not been consistent with this framework.

A number of studies *fully support* this model. For example, Buki and colleagues (2003) found that a greater acculturation gap between parents and adolescents was associated with more parenting difficulties in Chinese American families. Similarly, in a study with Latino American families, a larger gap was associated with higher levels of substance abuse among adolescents (Cox et al. 2013). Other studies only *partially support* the gap-distress model. In a study with Chinese Canadian families, Costigan and Doki (2006) found that a greater heritage acculturation gap between parents and early adolescents was associated with lower levels of well-being and achievement motivation in offspring, and greater family

conflict. Interestingly, this pattern did not emerge for the settlement acculturation gap. Similarly, Kim and Park (2011) found an association between youth problem behavior and a heritage gap, but not with a settlement gap. In contrast, adolescents' well-being and academic performance in Chinese American families were associated with the settlement acculturation gap only, moderated through parenting practices and parent-youth alienation (Kim et al. 2013).

A number of studies have provided *no support* for the gap-distress model. In a study with Mexican American families, family conflicts and adolescents' maladjustment (e.g., poor well-being, sexual experience and school misconduct) were not linked with parent-adolescent gaps, but instead with individual level of acculturation in parents and their offspring (Pasch et al. 2006). Similarly, Nieri and colleagues (2016) found no association between either the heritage or settlement gaps and adolescents' problem behavior and relationship quality with parents in Mexican American families. Other research also found no association between either acculturation gap and outcome variables such as youth problem behavior, academic performance and family functioning in Mexican American immigrant families (Telzer et al. 2016). Although the conflicting findings may seem to be challenging the gap-distress model, these studies also differ on a number of important methodological and conceptual aspects.

Methodological and Conceptual Concerns

Dimensionality of acculturation. An important conceptual difference between studies relates to the dimensionality of acculturation (uni- vs. bi-dimensional). Although some scholars still use the unidimensional model (Cox et al. 2013; Marsiglia et al. 2014), this approach has been dismissed as being theoretically untenable and inadequate, due to confounding two independent dimensions (Ryder et al. 2000; Ward and Geeraert 2016).

Measuring acculturation gaps. Different approaches have been used to operationalize the acculturation gap. Some studies measure the gap by testing either parents or offspring, but not both. Such a "perceived" acculturation gap was found to be linked consistently with negative offspring outcomes (Chen et al. 2014; Unger et al. 2009). However, some researchers have pointed out the limitations of this proxy measure, putting into question the causality of the relationship between the perceived acculturation gap and family conflict. Offspring who experience more family conflict at home may perceive greater dissonance with their parents and report a larger acculturation gap (Telzer 2010). There is some evidence to suggest that parents and their offspring can misjudge each other's level of acculturation (Knafo and Schwartz 2003), leading to spurious associations between acculturation gaps and outcomes.

Other studies have adopted an "actual" gap approach, assessing the acculturation gap by comparing both parents' and offspring's self-report acculturation. The actual gap, which has also been called the real gap or self-reported gap, has been studied extensively (Kim et al. 2013; Kim and Park 2011). Findings have been largely inconsistent however, with many authors failing to find an association between the actual gap and outcomes, calling into question the link between the actual gap and youth adjustment (Telzer 2010). Importantly however, researchers have not compared self-report (i.e. actual gap) to self-other (i.e. perceived gap) measures within a single study (although see Merali 2002).

Calculating acculturation gaps. Another issue, which may account for some of the conflicting findings, concerns the computation of the acculturation gap. Broadly, researchers have adopted three different approaches: a categorical approach, a mathematical difference score and a statistical interaction term. Using the categorical "match/mismatch" approach, individuals are first allocated to discrete acculturation types (e.g. integration,

assimilation, separation, and marginalization). Depending on whether they are assigned to the same category or not, family members are subsequently marked as matched or mismatched respectively. The method has been widely used (Pasch et al. 2006; Nieri et al. 2016), but fails to assess both individual levels of acculturation and the magnitude of the gap (Telzer 2010), making the method suboptimal.

The other two approaches use continuous measures. The difference score method is a mathematical approach in which the acculturation level from one family member is subtracted from the other (Cox et al. 2013; Marsiglia et al. 2014). Arguably, the difference score is superior to the categorical method as it quantifies the size of the gap. However, a limitation of this approach is that it does not account for individual levels of acculturation. Hence it is unclear whether negative outcomes were due to acculturation gaps or individual acculturation levels (Birman 2006; Telzer 2010 2016). Finally, the interaction method examines individual levels as main effects (parent and offspring) and the gap as the interaction between parents and offspring's acculturation (Chen et al. 2014; Rasmi et al. 2015). Birman (2006) and Telzer (2010) have argued that this is the best approach to operationalize acculturation, as it accounts for the individual levels of both parent and offspring, as well as the interplay between the family members.

To disentangle the effects of these different methods, some studies have directly compared acculturation gaps operationalized by different approaches. The categorical and difference score methods were contrasted in two separate studies (Lau et al. 2005; Lim et al. 2008). Families that were 'mismatched' reported more youth conduct problems (Lau et al. 2005) and more depressive symptoms among youth (Lim et al. 2008). Using the difference score method, neither study found an association between the heritage or settlement acculturation gap with either individual or family level outcome variables. Alternatively,

Birman (2006) compared the difference score and interaction method. Using the difference score, a settlement behavior gap, settlement identity gap, and heritage language gap were all associated with family conflict and disagreement. However, using the interaction method, only the effect of settlement identity gap remained significant.

Sample Characteristics

Apart from conceptual and methodological differences, the aforementioned studies also differ in sample characteristics, i.e. age (of offspring), gender and cultural context. The importance of age in development cannot be overstated and the acculturation context is no exception (Cheung et al. 2011). Still, the variability in age of offspring within acculturation studies is relatively invariant, with the majority of studies focusing on adolescents and emerging adults (for an exception see Chen et al. 2014). This developmental period is characterized by youth broadening their focus away from the family, to navigate their self-development in a societal context, including negotiating with social requirements and interacting with peers (Rueger et al. 2010). However, parent's continued involvement in their offspring's life may lead to ongoing generational conflict (Ahn et al. 2008). A meta-analysis, conducted by Lui (2014), examined the moderation effect of offspring's age. The gap-distress relationship was more salient in the emerging adults group, compared to the adolescent group. No difference was found between early and middle adolescent groups.

Some scholars have argued that acculturation gaps may not be inevitable, and that the gaps need not be evenly distributed across family members (Costigan 2010). Thus, the question that naturally arises is whether family members who are most likely to experience large acculturation gaps can be identified, with gender of parents and offspring as a prime candidate. Some studies provide evidence for different patterns between mother-offspring and father-offspring dyads. While Kim and colleagues (2013) found that the mediating effect

of parenting practices and parent-offspring alienation on the gap-distress association was more apparent in father–adolescent than in mother–adolescent dyads. Other studies found no difference between mother-offspring and father-offspring dyads (Costigan and Koryzma 2011; Nieri et al. 2016).

Finally, migrant samples and settlement cultures also differ by cultural background. The gap-distress model was fully supported for Chinese Americans in a study of Buki and colleagues (2003), but other studies only provided partial support for similar groups, be they Chinese American (Kim et al. 2013), Chinese Canadian (Costigan and Doki 2006), or Korean American migrants (Kim and Park 2011). Similarly, the gap-distress association among Latino American migrants found full-support in one study (Cox et al. 2013), but partial support in another (Smokowski et al. 2008). Even more strikingly, studies of Mexican Americans either found partial (Schofield et al. 2008) or no support (Nieri et al. 2016; Pasch et al. 2006).

Moderation Effect of Cultural Distance

Culture is a ubiquitous context, which influences the way individuals perceive the social world, interact with other people, and handle the discrepancies between themselves and social expectations and norms (Kashima and Abu-Rayya 2014). Thus, acculturating into a culture which is highly dissimilar from the culture of origin is expected to be challenging. Perceived cultural distance, the extent to which the heritage and settlement culture differ, has been identified as a significant predictor among sojourners' acculturation (Demes and Geeraert 2014; Suanet and Van De Vijver 2009). It is not clear whether lower cultural distance leads to improved well-being, or whether higher well-being leads to lower levels of *perceived* distance, raising questions about the causality (Geeraert and Demoulin 2013). More importantly however, the extent to which cultural distance affects youth's acculturation processes in the context of migrant families has not previously been explored.

Greater cultural distance may not only cause more difficulties for adolescents when attempting to reconcile them, but also have an adverse impact on parents' cultural involvement, which may indirectly affect youth well-being.

Current Study

Acculturation gaps and their associated consequences have been extensively studied, but results have been largely inconclusive. The use of different populations, measurement techniques and statistical approaches may account for some of these inconsistencies. The current study seeks to examine this in a novel and systematic way. Adolescents or emerging adults and their parents were surveyed as a family dyad. The sample had diverse migrant backgrounds, making it possible to generalize findings. To compare the effect of actual and perceived acculturation levels on the acculturation gap and gap-distress, participants were asked to assess their acculturation toward both their heritage and settlement culture of themselves *and* their relative. In terms of data analytics, the study compares the two most commonly used methods (difference score and statistical interaction). Finally, the role of cultural distance as a possible moderator of the gap-distress model is examined.

Focusing on the actual acculturation gap, it is hypothesized that youth's acculturation, compared to their parents, will be higher toward the settlement culture (*Hypothesis 1*) and lower toward the heritage culture (*Hypothesis 2*). Subsequently, the perception of self and other are juxtaposed to test two competing predictions that the acculturation gap pattern across actual and perceived gap will be indistinguishable (*Hypothesis 3a*) or different (*Hypothesis 3b*).

To examine the gap-distress model, participants also rated the adolescents' or emerging adults' well-being. Using the difference score method, it is hypothesized that the offspring's well-being will be negatively associated with both a heritage and settlement

acculturation gap (*Hypothesis 4*). When using the interaction method however, it is hypothesized that well-being will be positively associated with youth's acculturation toward the heritage and settlement culture (*Hypothesis 5*). The current study has no specific hypotheses whether well-being will be associated with parents' acculturation level or the interaction of youth by parents. However, by comparing the perceptions of parents and youth the study will be able to test whether the association between acculturation and well-being is either similar across raters (*Hypothesis 6a*) or moderated by rater (*Hypothesis 6b*). Finally, the hypothesis that cultural distance has a moderating effect on the relationship between acculturation and well-being (*Hypothesis 7*) will be examined.

Methods

Participants' Characteristics

The target sample was families with a migrant background living in the UK. Per family, a single parent and a single offspring were recruited as a dyad. Inclusion criteria were for families to have a migrant background and for the offspring to be an adolescent or emerging adult (aged between 13 and 25). No further inclusion criteria were specified.

Out of 167 families who initially agreed to participate in the study, 10 families did not complete both surveys in the dyad, and so were excluded because of missing data. In four families, the offspring were older than 25 and so these dyads were also excluded. The final sample thus consisted of 306 participants nested in 153 parent-offspring dyads. All families were residing in the United Kingdom (the settlement culture), but varied in their heritage culture (see Table 1). Spanning a total of 53 countries, the most common countries of origin were South Asian (18.3%), Caribbean (15.0%), West African (14.4%), East Asian (9.8%) or Southern European (7.8%). This diversity is typical of the greater London area, where the majority of families were recruited.

- - - Insert Table 1 about here - - -

The parent sample (60% females, 40% males; age range = 34-69, M_{age} = 49.03, *SD* = 6.40) was mostly 1st generation immigrants (71.2%; age of migration *M* = 23.61, *SD* = 8.51; length in UK *M* = 26.40, *SD* = 9.44), with smaller groups reporting to be 2nd (22.9%), or 3rd and 4th generation (5.9%). In the adolescent and emerging adult sample (58% females, 42% males; age range = 13-25, M_{age} = 19.64, *SD* =2.28) few individuals were born outside the UK (13.7% 1st generation; age of migration *M* = 8.33, SD = 4.93; length in UK = 11.58, SD = 4.52), with the majority being 2nd generation immigrants (58.8%) or 3rd and 4th generation (27.5%). In terms of missing data, 3 participants did not report their age (one parent and two offspring) and one adolescent did not report their gender.

Procedure

Surveys were distributed by snowball sampling through several community groups in the greater London area. The information sheets and questionnaires were provided to parents and their offspring. Both groups were surveyed independently. An online Qualtrics survey was used to allow questions to be personalized with regards to the heritage culture. However, paper booklets were also available upon request. Consent was obtained at the beginning of the survey. Where questions were asked about the other family member, a targeted approach was adopted, as is typical in dyad studies. Specifically, in each family one parent responded to questions relative to the target offspring, and the target offspring answered questions relative to that parent. At the start of the survey, the experimenter reminded the participants who were their target parent or offspring.

Measures

Demographic variables. Parents and offspring were asked to report their country of birth, gender, age, age of moving to the UK and the length of time in UK. Additionally parents

were asked about the generation status of themselves and their offspring.

Acculturation-self. The extent of parents' and offspring's acculturation toward the settlement and heritage culture was assessed using the Vancouver Index of Acculturation (Ryder et al. 2000). This well-established measure assesses acculturation across a range of domains such as cultural practices, social activities, social interactions, traditions and values. For each culture, participants were asked to indicate their agreement with 10 acculturation statements using a scale from 1 (= strongly disagree) to 7 (= strongly agree). For instance, acculturation toward heritage culture was measured using items like 'I believe in the values of *my heritage culture*' and for acculturation toward settlement culture, the item would be 'I believe in the values of *the British culture*'. Both scales had good reliability (both αs > .80).

Acculturation-other*.* To investigate parents' and offspring's perception of the acculturation for offspring and parents respectively, the same acculturation measure was adapted. In addition to the self-report measure, parents were asked to report their perception of their offspring's acculturation toward both cultures, using items like 'My son/daughter believes in the values of *British culture*'. Similarly, offspring were asked to report their perception of their parents' acculturation, using items like 'My parent believes in the values of *British culture*'. Both scales had good reliability (both αs > .80).

Youth well-being. The extent of adolescents' or emerging adults' subjective well-being was assessed using the Satisfaction with Life Scale (Diener et al. 1985). Throughout the article, the term "well-being" was used to refer subjective well-being. Specifically, participants were asked to indicate their agreement with 5 statements using a scale from 1 (= strongly disagree) to 7 (= strongly agree). Adolescents' or emerging adults' self-reported well-being level was measured using items like 'I am satisfied with my life'. And for parents' perception

on their offspring's satisfaction, the item would be 'My son/daughter is satisfied with their life'. Both scales had good reliability (αs > .85).

Culture distance. Perceived cultural distance between participant's heritage and settlement cultures was assessed using a single item from the Overlap of Self, Ingroup and Outgroup Scale (Schubert and Otten 2002). Participants were presented with a series of circle pairs (varying in their degree of overlap), and explained that one circle represented the British culture and the other their heritage culture. They were asked to select the picture that best represented the relation between their heritage culture and the British settlement culture. Seven pictures were presented, thus providing a scale ranging from 1 (large distance) to 7 (full overlap). Scores were reversed before analyses.

Other measures. The survey also included the Bicultural Identity Integration scale (Benet-Martínez & Haritatos, 2005), but this measure is not relevant to the current study.

Results

Descriptive statistics and bivariate correlations for acculturation, cultural distance and well-being variables were calculated (see Table 2). The results report a series of analyses examining the actual and perceived acculturation gaps between parents and youth (*Hypotheses 1, 2,* and *3*). Next a series of multilevel regression models investigate the acculturation gap-distress model (*Hypotheses 4, 5,* and *6*). Finally, the role of cultural distance is examined (*Hypothesis 7*).

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Actual Acculturation Gap

To examine possible discrepancies between family members, parents and youth self-reported acculturation toward heritage and settlement were compared. Thus a 2 (role: parent vs. offspring) by 2 (culture: heritage vs. settlement) repeated measures ANOVA was

conducted. The analysis revealed a significant main effect of culture, $F(1, 152) = 88.50$, $p < .01$, $\eta_p^2 = .37$, showing that, overall participants had a higher orientation toward their heritage culture ($M = 5.87$, $SD = .79$) than the settlement culture ($M = 4.82$, $SD = .87$). The main effect of role was not significant ($F < 1$).

Importantly however, these main effects were qualified by a two-way interaction of role by culture, $F(1,152) = 114.34$, $p < .01$, $\eta_p^2 = .43$. To examine the nature of the interaction, acculturation was plotted (see Figure 1). Subsequent simple main effects analyses showed that parents had higher orientation toward the heritage culture ($M = 6.17$, $SD = .84$) than their offspring ($M = 5.57$, $SD = .92$), $p < .01$. In contrast, youth's orientation toward the settlement culture was greater ($M = 5.17$, $SD = .94$) than their parents' ($M = 4.47$, $SD = 1.19$), $p < .01$. Thus, consistent with the first two hypotheses, whist youth acculturated more strongly to the settlement culture than their parents (*Hypothesis 1*), parents were oriented to the heritage culture more than their offspring (*Hypothesis 2*).

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Actual versus Perceived Gap

The next analysis, more exploratory in nature, sought to examine whether the acculturation gaps were qualified by rater. Specifically, a 2 (rater: parent vs. offspring) by 2 (target: parent vs. offspring) by 2 (culture: heritage vs. settlement) fully repeated measures ANOVA was conducted. In line with the previous analysis, the main effect of culture was significant, $F(1, 152) = 103.84$, $p < .01$, $\eta_p^2 = .41$. Overall, participants had a higher orientation toward their heritage culture ($M = 5.89$, $SD = .76$) than the settlement culture ($M = 4.84$, $SD = .80$). Neither the main effect of rater ($F < 1$), nor target ($F(1,152) = 3.22$, $p = .08$) was significant. However, a series of significant two-way interactions emerged. The target by culture interaction was significant, $F(1,152) = 271.20$, $p < .01$, $\eta_p^2 = .64$ (see Figure

2, top panel). Simple main effects analyses revealed that across raters, parents were perceived to have higher acculturation toward heritage (M = 6.24, SD = .74) than youth (M = 5.54, SD = .90), $p < .01$. While for the settlement culture, both raters perceived the youth to be higher (M = 5.26, SD = .79) than their parents (M = 4.42, SD = 1.02), $p < .01$. This interaction conceptually replicates the results from the previous analysis.

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In addition, a rater by culture interaction emerged, $F(1,152) = 7.60$, $p = .01$, $\eta_p^2 = .05$ (see Figure 2, bottom panel). Across targets, youth perceived acculturation levels toward settlement to be lower (M = 4.77, SD = .93) than their parents (M = 4.91, SD = .88), $p = .04$, and acculturation levels toward heritage to be higher (M = 5.94, SD = .78) than their parents (M = 5.84, SD = .88), $p = .06$. These results seem to suggest that youth distinguished between both cultures more strongly than their parents. Finally, the interaction of rater by target was not significant, $F(1,152) = 2.17$, $p = .14$.

The 3-way interaction of rater by target by culture was not significant ($F < 1$), indicating that the target by culture interaction was not qualified by rater. Taken together, these exploratory analyses suggest that the acculturation gap is in fact independent of the rater. This is in line with *Hypothesis 3a*, thus rejecting *Hypothesis 3b*.

Heritage and Settlement Acculturation on Well-being

To examine the relationship of heritage and settlement acculturation with youth well-being, the data were analyzed through a series of multilevel models, using the MLwiN software (Version 3.02; Charlton et al. 2019). Inspection of the correlations (see Table 2) did not suggest problematic levels of multi-collinearity. Furthermore, multilevel modelling techniques have been shown to be relatively robust to high levels of multi-collinearity (Shieh and Fouladi 2003), and so no further multi-collinearity analyses were conducted.

The association between well-being and level of acculturation was examined separately for the heritage and settlement culture. In each model, well-being was analyzed in a two-level model with individual (N = 306) as the first level, nested within families (N = 153) at the highest level. First a null model was computed with well-being varying at the individual level. Next, role (parent vs. offspring) was added as a control variable. Then grand-mean centered predictors were entered in subsequent models.

Difference score. First, the gap-distress hypothesis was analyzed using the difference score method. For each culture, an absolute difference score was computed by subtracting parents' acculturation scores from that of their offspring. For heritage acculturation, the difference score was negatively related to well-being (*B* = -.25, *SE* = .10, *p* = .01), such that families perceiving a larger heritage gap reported poorer well-being. Similarly, the relationship between acculturation toward settlement and well-being was negative (*B* = -.16, *SE* = .08, *p* = .04). Taken together, these results confirmed *Hypothesis 4*.

However, without controlling for the parent's and youth's individual acculturation scores, it is not possible to determine whether negative outcomes are due to the relative discrepancies between parents and youth, or the individual level of acculturation. Thus, the raw scores were subsequently added to this analysis. For *heritage* acculturation, parents acculturation was negatively, but not significantly, associated with youth well-being (*B* = -.29, *SE* = .17, *p* = .08). Youth acculturation was not significant as a predictor (*B* = .12, *SE* = .18, *p* = .48). Importantly, the difference score was no longer associated with youth well-being (*B* = -.10, *SE* = .20, *p* = .60). For *settlement* acculturation, the association with youth well-being was not significant for either youth's (*B* = .05, *SE* = .16, *p* = .74) or parents' acculturation (*B* = .25, *SE* = .16, *p* = .12). Crucially, whist controlling for the raw acculturation scores, the difference score was no longer associated with youth well-being (*B* = .05, *SE* = .18, *p* = .80).

Taken together, these results suggest that the effect of the difference score disappeared when controlling for the individual raw scores. To further distinguish the impact of different types of gaps on youth well-being, the data was subsequently analyzed using the interaction approach.

Heritage acculturation. To examine the relationship between heritage acculturation and youth well-being, a null model was computed with well-being varying at the individual level (*Deviance* = 941.44, *df* = 3). The intra-class correlation showed that 62% of the variance was explained by the individual level (level 1), and the remaining 38% was at the family level (level 2). The addition of role as the individual level significantly improved the model, $\chi 2(1)$ = 15.18, $p < .01$. Overall, parents perceived their offspring's well-being to be higher, than the adolescents' self-report ($B = .40$, $p < .01$).

Next, the main effects of heritage acculturation level of youth and parents were added (Model 1.1, see Table 3), significantly improving the model, $\chi^2(2)$ = 11.46, $p < .01$. Youth's level of heritage acculturation was positively associated with their well-being ($B = .20$, $p = .02$), indicating that youth with stronger identification with their heritage culture reported higher well-being, confirming the prediction (*Hypothesis 5*). Interestingly, parents' level of heritage acculturation was negatively associated with youth well-being ($B = -.36$, $p < .01$), suggesting parents' identification toward their heritage culture reduced their offspring's well-being. To examine the effect of the heritage acculturation gap, the interaction of acculturation levels of youth and parents was added (Model 1.2, Table 3), but failed to improve the model, $\chi^2 < 1$. Importantly, these results suggest that the overall *level* of heritage acculturation, not the *gap*, matter for youth well-being.

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To explore whether these effects differed by rater, a series of two-way and three-way interactions between role and acculturation levels were added (Model 1.3, Table 3). The inclusion did not alter the model, $\chi^2(3)$ = 3.35, p = .34, nor did any of the individual predictors reach significance. This suggests that the association between heritage acculturation and well-being was independent of it being reported by parents or youth (*Hypothesis 6a*).

Settlement acculturation. The same analysis was conducted for the relationship between settlement acculturation and youth well-being. After computing the basic model, settlement orientation of youth and parents were entered (Model 2.1, see Table 3), significantly improving the model, $\chi^2(2)$ = 18.21, p < .01. Contrary to the prediction (*Hypothesis 5*), settlement acculturation of youth was not significantly associated with their well-being (B = .09, p = .33). However, parents' settlement orientation was positively associated with youth well-being (B = .21, p < .01), indicating that youth whose parents adjusted better to the settlement culture had better well-being. Next, the interaction between youth and parents acculturation levels was added (Model 2.2, Table 3), but this did not improve the model, $\chi^2(1)$ = 1.45, p = .23. Once again, this suggests that the overall *level* of settlement acculturation, not the *gap*, was important for youth well-being.

To examine whether these effects differed by rater, a series of two-way and three-way interactions between role and acculturation levels were once more added (Model 2.3, Table 3). The inclusion did not improve the model, $\chi^2(3)$ = 1.42, p = .70, moreover none of the individual predictors reached significance, suggesting that the relationship between settlement acculturation and well-being was independent of the rater (*Hypothesis 6a*).

Taking the analyses of heritage and settlement together, these results suggest that youth heritage acculturation, but not the settlement culture, were associated with well-

being, thereby partially confirming the hypothesis (*Hypothesis 5*). The remaining tests within these analyses were more exploratory, but yielded a number of interesting findings. First, the association between youth well-being and parents' acculturation levels was positive for settlement, and negative for heritage culture. Second, the gap operationalized by the interaction was not a significant predictor. Finally, a comparison of two alternative hypotheses revealed that these effects were independent from rater (confirming *Hypothesis 6a*).

Cultural Distance as a Moderator

Heritage acculturation. To examine the moderating effect of cultural distance, the previous analyses between heritage acculturation and youth well-being were extended. Using the main effects model (Model 1.1, Table 3) as the basic model, cultural distance was subsequently added (Model 1.4, Table 4), which improved the model fit, $\chi^2(1) = 7.54$, $p = .01$. Cultural distance was negatively associated with youth's well-being ($B = -.11$, $p = .01$), indicating that in those families who perceive more cultural distance, youth had worse well-being.

- - - Insert Table 4 here - - -

Next, the interactions between cultural distance and heritage acculturation of youth and parents respectively were added (Model 1.5, Table 4). Although the overall model did not improve, $\chi^2(2) = 5.21$, $p = .07$, one of the interactions did reach significance. Specifically, cultural distance seemed to moderate the relationship between youth's acculturation and well-being ($B = -.11$, $p = .02$). In line with predictions (*Hypothesis 7*), youth who identified strongly to their heritage culture reported better well-being, but this was only the case when cultural distance was perceived to be small (see Figure 3).

- - - Insert Figure 3 here - - -

Settlement acculturation. Again, the analyses of settlement acculturation were extended, using the main effects model (Model 2.1, Table 3) as the basis. The addition of cultural distance (Model 2.4, Table 4) did not significantly improve the model, $\chi^2(1) = 3.04$, $p = .08$. When controlling for settlement acculturation, the association between youth's well-being and cultural distance became marginally significant ($B = -.07$, $p = .08$).

To examine the possible moderating effect of cultural distance on the relationship between settlement acculturation and youth's well-being, the interaction terms were added to the Model 2.5 (Table 4). However, the model did not improve, $\chi^2(2) = 1.28$, $p = .53$, and neither of the individual predictors reached significance. Thus, contrary to predictions (*Hypothesis 7*), the moderating effect of cultural distance did not materialize for settlement acculturation.

Sensitivity Analyses

To ensure the findings were robust, a number of additional analyses were conducted. First, the sensitivity to missing data was analyzed. Specifically, offspring in two families did not report their age, and thus it cannot be established whether these individuals meet the age inclusion criteria. After excluding these two families, the data was reanalyzed. Notably, the pattern of results across all analyses was identical. Next, the impact of a number of individual level control variables was analyzed. In the multilevel modelling, an individual's gender, age, and generation status was added. None of these control variables was significantly associated with the well-being measure. More importantly, the addition of the control variables did not alter the pattern of results in any way.

Discussion

The intergenerational acculturation gaps and their associated negative outcomes have been studied extensively, but results have been largely conflicting. To examine these

inconsistences and the validity of the gap-distress model, the current study used a novel approach, using different measurement techniques (actual vs. perceived gaps) and statistical methods to compute the gap (difference score vs. statistical interaction). The role of cultural distance was also examined as a possible moderator of the gap-distress model. Compared to their parents, adolescents acculturated more strongly to the settlement culture and less strongly to the heritage culture. No difference was found between the actual and perceived gaps. Youth well-being was negatively associated with parent's endorsement of the heritage culture. However, heritage engagement of adolescents and settlement engagement of their parents were found to be beneficial.

Should Researchers Mind the Acculturation Gap?

Consistent with previous studies (Birman 2006; Phinney et al. 2000) and confirming the predictions, adolescents were oriented more strongly to the settlement culture than their parents, whilst parents acculturated more strongly to the heritage culture than their offspring. Interestingly, subsequent analyses demonstrated that these acculturation gaps were perceived equally strong by parents and youth. On the one hand these results seem to suggest that the perceived gap might not be as problematic as Birman (2006) and Telzer (2010) previously theorized. On the other, the effect of rater may be moderated by other factors, such as parenting style. For instance, in families where parents provide a supportive and warm environment, youth tends to be more aligned with their parents (Teti and Candelaria 2002). Future studies may wish to include such moderators.

Past research on the acculturation gap-distress model has employed a variety of measures and statistical methods. Consequently, it is hard to disentangle whether inconsistent findings are due to these methodological differences or call into question the validity of this model. To address these concerns the relationship between acculturation and

well-being was examined using different measurement (actual vs. perceived acculturation) and analytic approaches (difference score vs. interaction). The acculturation gap, operationalized by the difference score, was associated with lower youth well-being. However, when controlling for individual's raw acculturation scores, the association between difference score and well-being was no longer significant. Likewise, the dominance of the individual acculturation level over the gap was repeated when using the interaction approach.

Considering youth acculturation, individual levels of acculturation, but not the acculturation gap, were associated with youth well-being. Youth, who reported greater *heritage* acculturation, reported higher well-being. These results are in line with research on ethnic identity, suggesting that heritage connections are a protective factor for youth well-being (Phinney et al. 2001; Smith and Silva 2011). However, the association between *settlement* acculturation and well-being of youth was not significant. Interestingly, this pattern of results is consistent with Telzer and colleagues (2016), who reported an association between youth adjustment and heritage acculturation, but not with settlement acculturation. One possibility is that youth value heritage culture over settlement culture because of differences in the identity salience of these two cultures. Yip and Fuligni (2002) observed that the association between ethnic identity and well-being is stronger when ethnicity is central to one's self-construal. Heritage identity may distinguish a youth from others in the settlement culture, and as a 'representative' for their heritage culture, valuing this culture may be particularly important for youth well-being. This result has implications for policy makers and sociologists: it suggests that it is important to allow or even encourage youth to identify with their heritage culture.

Turning to parents' acculturation, a different picture emerged. Youth well-being was

associated positively with settlement acculturation and negatively with heritage acculturation of the parents. This is in contrast with Telzer and colleagues (2016) who found no evidence of parents' acculturation affecting youth well-being, and Costigan and Dokis (2006) who found parents' heritage values, but not settlement, benefited youth well-being. Presumably, parents who are high in settlement acculturation will be better at navigating the social environment of the settlement culture, which might benefit themselves and their offspring. The negative effect of parents' heritage endorsement is particularly interesting. Youth who are identifying more strongly with the settlement culture, i.e. through social contacts, may be pressurized to maintain aspects of the heritage culture by parents strongly identifying with the heritage culture. Such parental demands may be particularly challenging during a time in which adolescents and emerging adults are asserting their independence. Thus, for the benefit of their offspring, parents should be encouraged to be sufficiently engaged with the settlement culture.

Taken together, the overall mean level of youth and parents' acculturation, not the gap, were associated with youth well-being. Thus, the current study does not support the acculturation gap-distress model, suggesting that parent-youth dissonance is not necessarily problematic. This resonates with the typology of acculturation gaps proposed by Portes and Rumbaut (2001), only one of which is deemed problematic, implying the existence of "healthy" gaps. Thus, it is important to disentangle the different types of gaps and their consequences (Telzer 2010; Costigan 2010). Although a gap is clearly present at the aggregate level, the current study suggests the size of the gap does in fact not matter for youth's well-being. Taken together, these results seem to suggest that acculturation gaps can have inconsequential outcomes.

According to Berry (2019), acculturation is a bidimensional process, in which

different combinations of maintaining heritage practices and endorsing the settlement culture results into four different acculturation strategies. Of these strategies, integration has been proposed as the most beneficial. In the current study, heritage maintenance of youth seems to be more influential than the settlement culture, suggesting that a solid grounding into the heritage culture was paramount for well-being. Parent's endorsement of the settlement culture was also associated with better well-being. Thus rather than integration at the individual level, these results may indicate that families as a whole need to endorse both cultures.

In terms of moderators, cultural distance partially moderated the effects outlined above. In particular, youth who identified strongly to their heritage culture reported better well-being, but this was only the case when cultural distance was small. Speculatively, while maintaining heritage identity seems beneficial for youth, it may be challenging to reconcile their heritage and settlement cultures, when the cultural distance between them is large.

Strengths and Limitations

This study has a number of notable strengths. First, a comprehensive review of the gap-distress literature revealed a number of significant differences in methodology across studies. A direct comparison of different measurement and analytic approaches, tested their relative merits. Second, this study employed a dyadic design, which was analyzed within a multilevel modelling framework: so variance was considered within and across families. Finally, the current study examined whether and how cultural distance moderated the relationship between acculturation and youth well-being.

Despite these strengths, the present study also has a number of limitations. First, this study is cross-sectional in nature, making it impossible to draw causal conclusions. Longitudinal research would investigate causality, as well as the possible changing nature of

this gap. Secondly, along with other researchers examining parent-offspring dyads, this study failed to consider other relationships within families, such as husband-wife or sibling-sibling. More broadly, the current research could be supplemented by a more global examination based on the ecological framework of the acculturation process and its context (Ward and Geeraert 2016), to examine acculturation not only within the individual and family context, but also the institutional and societal contexts.

Conclusion

The acculturation gap-distress model proposes that discrepancies between parents and offspring will result in family malfunction and youth negative outcomes. To address empirical inconsistencies and explore alternative models, the present study systematically examined acculturation gaps and the gap-distress model. Migrant families in the current study experienced acculturation gaps, but overall, these seemed to be inconsequential. Rather, heritage acculturation of youth functioned as a protective factor for their psychological adjustment, hence it is important to support youth to initiate and maintain this heritage identification in the settlement society. Importantly, youth's well-being was also affected by their parents' cultural engagement, suggesting that youth benefit when their parents orient themselves more to their settlement, and less to the heritage culture. Taken together, migrant youth seem to benefit from themselves being rooted in the heritage culture and their parents grounded in the settlement culture, suggesting that integration operates best at the family level as opposed to the individual level. Societies and practitioners should put their focus to integrate heritage culture into youth socialization process, encourage and support youth to keep connecting with their heritage cultures.

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Authors' Contributions QS and NG conceived of the study, designed and coordinated the study, performed the statistical analysis, participated in the interpretation of the data and drafted the manuscript; AS participated in the interpretation of the data and helped to draft the manuscript. All authors read and approved the final manuscript.

Data Sharing Declaration The datasets generated and/or analyzed during the current study are not publicly available but are available from the corresponding authors on reasonable request.

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Compliance with Ethical Standards

Conflicts of Interest The author(s) declared that there were no conflicts of interest with respect to the authorship or the publication of this article.

Ethical approval The study procedures were approved by University of Essex Institutional Review Board. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institution and national guidelines.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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Region	countries	N	%
Asia			
South Asia	5	28	18.3
East Asia	3	15	9.8
Southeast Asia	4	10	6.5
Asia total	12	53	34.6
Africa			
West Africa	2	22	14.4
East Africa	3	9	5.9
North Africa	4	5	3.3
Southern Africa	3	5	3.3
Central Africa	1	3	2.0
Africa total	13	44	28.8
Latin America			
Caribbean	7	23	15.0
South America	2	6	3.9
Latin America total	9	29	19.0
Europe			
Southern Europe	6	12	7.8
East Europe	6	7	4.6
West Europe	5	6	3.9
Europe total	17	25	16.3
Rest of the world			
Oceania	2	2	1.3

Table 1. Distribution of families' origin by geographical region

		M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1	offspring's heritage acculturation (self-report)	5.57	.92	-	.66**	-.06	-.10	.60**	.64**	-.33**	-.13	-.08	.23**	.03	-.17*
2	offspring's heritage acculturation (perceived)	5.50	1.05		-	-.22**	-.19*	.71**	.45**	-.32**	-.16	-.11	.17*	.02	-.07
3	offspring's settlement acculturation (self-report)	5.17	.94			-	.57**	-.19*	-.08	.34**	.62**	-.18*	-.14	.19*	.29**
4	offspring's settlement acculturation (perceived)	5.35	.84				-	-.12	.01	.50**	.34**	-.01	-.30**	.20*	.29**
5	parents heritage acculturation (self-report)	6.17	.84					-	.60**	-.48**	-.22**	-.11	.32**	-.07	-.17*
6	parents heritage acculturation (perceived)	6.30	.80						-	-.35**	-.28**	.02	.32**	-.16	-.19*
7	parents settlement acculturation (self-report)	4.47	1.19							-	.55**	.06	-.61**	.18*	.30**
8	parents settlement acculturation (perceived)	4.36	1.13								-	-.19*	-.36**	.24**	.22**
9	offspring's cultural distance	3.28	1.65									-	.18*	-.24**	-.02
10	parent's cultural distance	3.72	1.63										-	-.25**	-.20*
11	offspring's well-being (self-report)	4.79	1.27											-	.43**
12	offspring's well-being (perceived)	5.19	1.04												-

Table 2. Bivariate Correlation between acculturation (as a function of target, culture, and perceiver), culture distance (by perceiver) and well-being (by perceiver)
*p<.05 **p<.001

	Heritage									Settlement								
	Model 1.1 Main effects			Model 1.2 Interaction			Model 1.3 Interaction by role			Model 2.1 Main effects			Model 2.2 Interaction			Model 2.3 Interaction by role		
	B	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
intercept	4.80	.09	<.01	4.81	.10	.02	4.79	.11	<.01	4.81	.09	<.01	4.85	.10	<.01	4.83	.10	<.01
role	.36	.10	<.01	.37	.10	<.01	.42	.12	<.01	.36	.10	<.01	.36	.10	<.01	.39	.11	<.01
acculturation child	.20	.09	.02	.20	.09	.02	.34	.12	<.01	.09	.09	.33	.04	.10	.72	-.01	.14	.94
acculturation parent	-.36	.11	<.01	-.37	.12	.03	-.42	.15	<.01	.21	.07	<.01	.22	.07	<.01	.24	.10	.01
child x parent				-.02	.08	.83	.04	.10	.71				-.07	.06	.23	-.05	.08	.54
acculturation child x role							-.24	.15	.11							.10	.17	.55
acculturation parent x role							.12	.21	.57							-.04	.12	.74
child x parent x role							-.09	.12	.46							-.06	.10	.56
Residual variance																		
σ^2_{L2} (family)	.53	.11	<.01	.53	.11	<.01	.54	.11	<.01	.46	.11	<.01	.45	.11	<.01	.46	.11	<.01
σ^2_{L1} (individual)	.75	.09	<.01	.75	.09	<.01	.73	.08	<.01	.77	.09	<.01	.77	.09	<.01	.76	.09	<.01
Model statistics																		
deviance (df)	914.80 (6)			914.76 (7)			911.41 (10)			908.05 (6)			906.60 (7)			905.17 (10)		
chi-2 (df)	11.46 (2)			.04 (1)			3.35 (3)			18.21 (2)			1.45 (1)			1.42 (3)		
p	<.01			.84			.34			<.01			.23			.70		

Table 3. Results of the Multilevel Analysis Models of Heritage and settlement acculturation on youth well-being: gap as interaction

	heritage						settlement					
	Model 1.4 Main effects			Model 1.5 2-way interaction			Model 2.4 Main effects			Model 2.5 2-way interaction		
	B	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
intercept	4.78	.09	<.01	4.76	.09	<.01	4.79	.09	<.01	4.78	.09	<.01
role	.42	.10	<.01	.43	.10	<.01	.40	.10	<.01	.37	.11	<.01
acculturation child	.19	.09	.04	.21	.09	.02	.09	.09	.32	.09	.09	.35
acculturation parent	-.31	.11	<.01	-.35	.11	<.01	.17	.07	.02	.18	.08	.02
perceived cultural distance	-.11	.04	.01	-.11	.04	<.01	-.07	.04	.08	-.07	.04	.07
acculturation child x cultural distance				-.11	.05	.02				-.01	.05	.81
acculturation parent x cultural distance				.08	.06	.16				-.03	.04	.36
Residual variance												
σ^2_{L2} (family)	.49	.11	<.01	.50	.11	<.01	.44	.10	<.01	.43	.10	<.01
σ^2_{L1} (individual)	.75	.09	<.01	.72	.08	<.01	.77	.09	<.01	.77	.09	<.01
Model statistics												
deviance (df)	907.26 (7)			902.05 (9)			905.01 (7)			903.74 (9)		
chi-2 (df)	7.54 (1)			5.21 (2)			3.04 (1)			1.28 (2)		
p	.01			.07			.08			.53		

Table 4. Results of the Multilevel Analysis Models of Heritage and settlement acculturation on youth well-being by the moderation of cultural distance

Figure 1

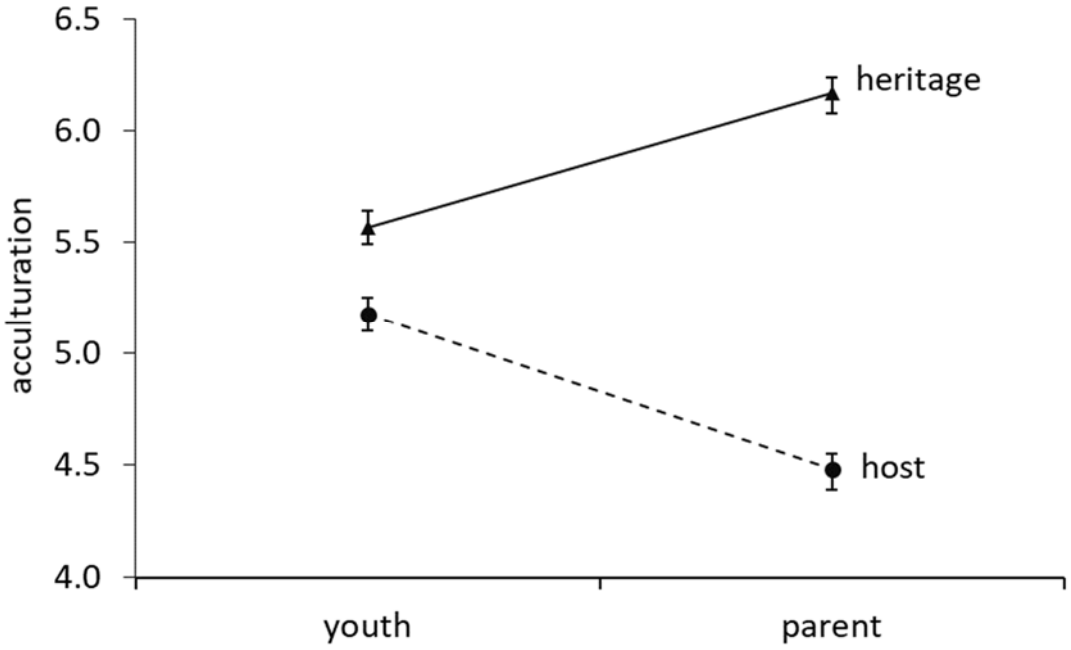

Fig. 1 Level of acculturation (error bars represent standard errors) as a function of acculturation orientation (heritage versus settlement culture) and role (parent versus youth)

Figure 2

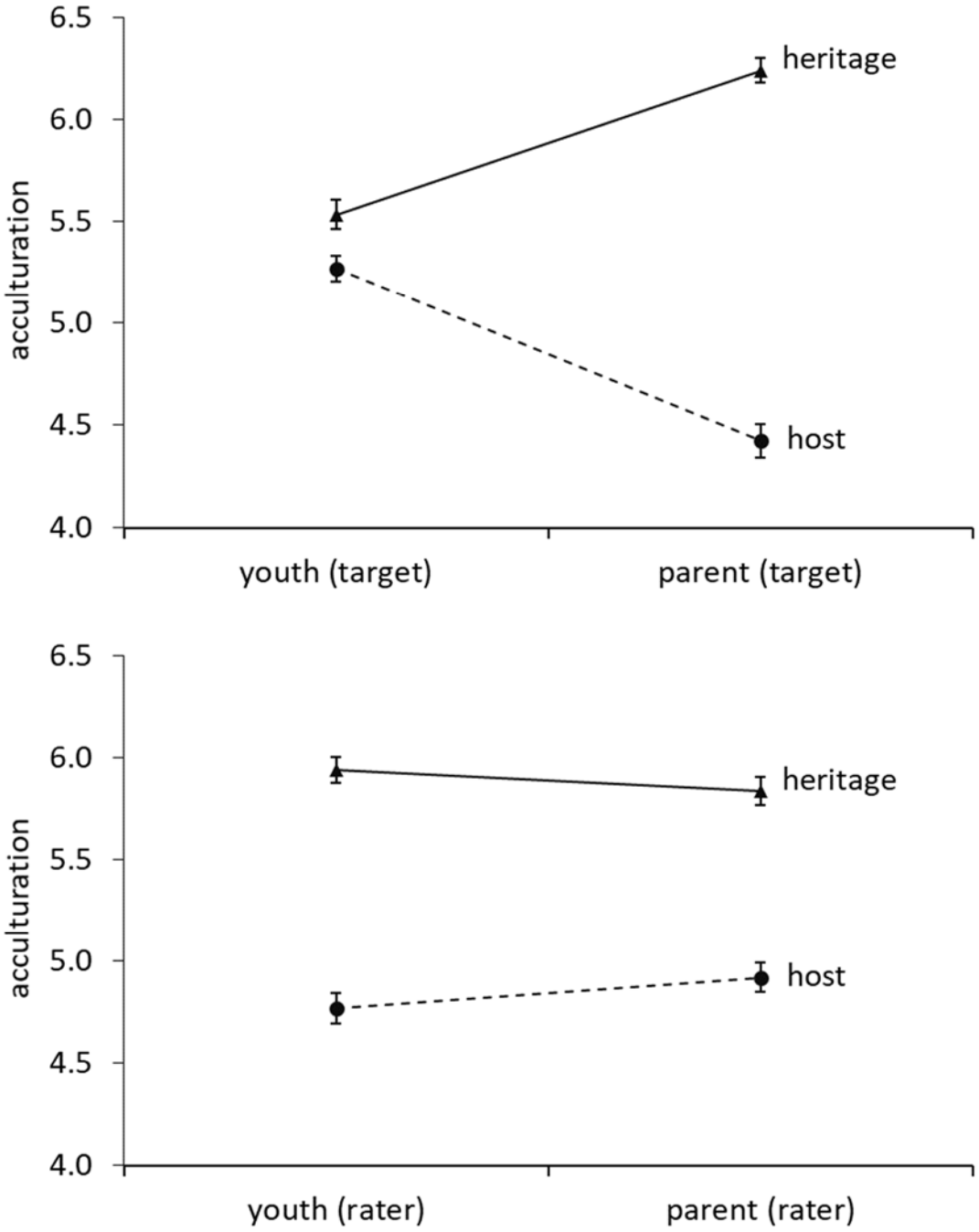

Fig. 2 The top panel represents level of acculturation (error bars represent standard errors) as a function of acculturation orientation (heritage versus settlement culture) and target (parent versus youth); the bottom panel represents level of acculturation (error bars represent standard errors) as a function of acculturation orientation (heritage versus settlement culture) and rater (parent versus youth)

Figure 3

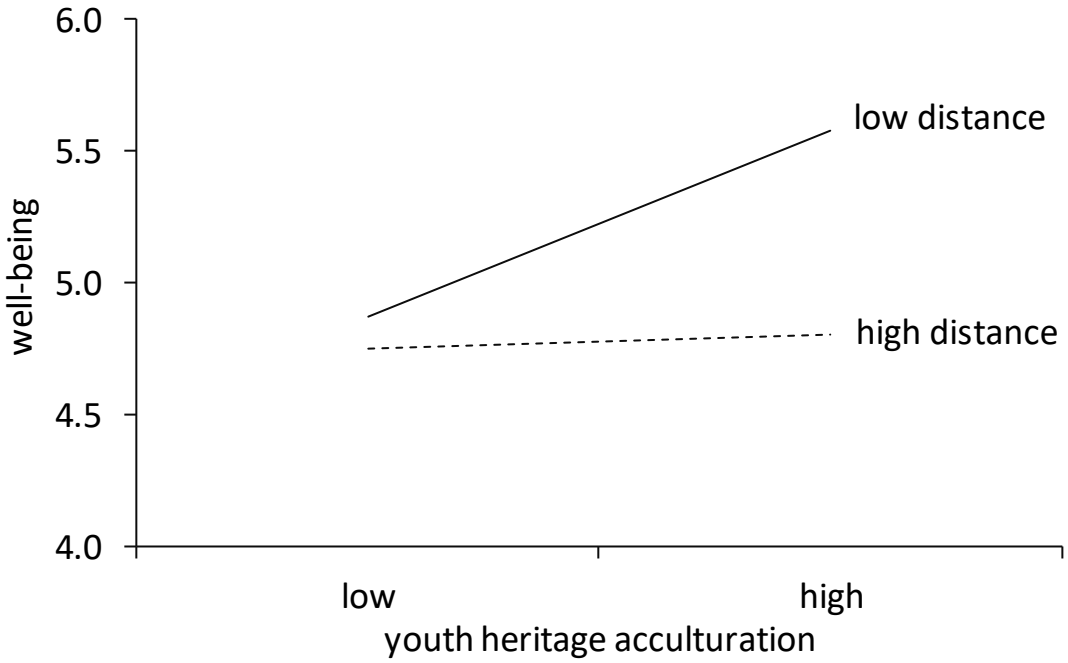

Fig. 3 Well-being of youth as a function of youth heritage acculturation and cultural distance